List of publications of AIIMS, New Delhi for the month of July, 2018 [Source: www.pubmed.com].

1: Agarwal N, Agrawal M, Sawarkar DP. Letter to the Editor. Ligamentum nuchae as a graft material for duraplasty in patients with Chiari malformation type I. J Neurosurg Pediatr. 2018 Oct;22(4):463-464. doi: 10.3171/2018.4.PEDS18301. Epub 2018 Jul 13. PubMed PMID: 30004313.

2: Aggarwal M, Mirgh S. Hepatic and Cardiac Iron Overload - Revising the Role of Deferiprone. Indian Pediatr. 2018 Jul 15;55(7):557-558. PubMed PMID: 30129534.

3: Aggarwal S, Ahuja V, Paul J. Dysregulation of GABAergic Signalling Contributes in the Pathogenesis of Diarrhea-predominant Irritable Bowel Syndrome. J Neurogastroenterol Motil. 2018 Jul 30;24(3):422-430. doi: 10.5056/jnm17100. PubMed PMID: 29852727; PubMed Central PMCID: PMC6034664.

Background/Aims: Diarrhea-predominant irritable bowel syndrome (IBS-D) is a prevalent functional bowel disorder. Abdominal pain, discomfort and altered intestinal habits are the salient features of IBS-D. Low grade inflammation and altered neurotransmitters are the 2 recently identified factors contributing to the pathogenesis of IBS-D, but their role and interactions has not been elucidated in detail. Here we investigate the potential role of γ-aminobutyric acid (GABA) in regulating gut inflammation during IBS-D.
Methods: Blood samples and colonic mucosal biopsies from clinically diagnosed IBS-D patients and controls were collected. Levels of GABA were measured in serum samples through enzyme-linked immunosorbent assay (ELISA). Expression of GABAergic system and proinflammatory cytokines were analyzed in biopsy samples by reverse transcriptase polymerase chain reaction (RT-PCR). Effect of GABA and its antagonist on the expression of proinflammatory cytokines in lipopolysaccharide (LPS)-stimulated HT-29 cells was examined through RT-PCR.
Results: ELISA data revealed diminished level of GABA in IBS-D patients as compared to controls. RT-PCR analysis showed altered GABAergic signal system in IBS-D patients as compared to controls. GABA reduced the expression of proinflammatory cytokines in LPS stimulated HT-29 cells, whereas bicuculline methiodide (GABA antagonist) upregulated the expression of same cytokines in LPS stimulated HT-29 cells.
Conclusions: Our sets of data indicate that diminished level of GABA and altered GABAergic signal system contributes to pathogenesis of IBS-D by regulating inflammatory processes. These results provide novel evidence for anti-inflammatory role of GABA in IBS-D patients by altering the expression of pro-inflammatory cytokines.

4: Alampalli SV, Grover M, Chandran S, Tatu U, Acharya P. Proteome and Structural Organization of the Knob Complex on the Surface of the Plasmodium Infected Red Blood Cell. Proteomics Clin Appl. 2018 Jul;12(4):e1600177. doi: 10.1002/prca.201600177. Epub 2017 Dec 5. PubMed PMID: 28981210.

PURPOSE: The cell membrane of the erythrocytes infected with the malaria parasite Plasmodium falciparum undergoes several changes during the course of parasite life cycle and forms protrusions known as 'knobs' on its surface during the mature trophozoite and schizont stages. The structural organization of knob components especially PfEMP1 on the iRBC surface is the main determinant for the cytoadhesive and rosetting capacity of the iRBC by binding to various host receptors as well as for the variable antigenicity, which is crucial for immunoevasion. Although several studies report individual interactions among knob constituents, a comprehensive identification of the knob proteome is lacking.
EXPERIMENTAL DESIGN: The detergent-resistant membrane (DRM) rafts are isolated from the infected erythrocyte membrane and knob (KAHRP) positive fractions are subjected to proteomics analysis. In addition, structures of various knob components are modeled and assembled ab initio based on experimentally established protein interactions.
RESULTS: Proteins of various functional classes are found to be present in the knobs including the newly identified knob constituents which include host Hsp70, elongation factor 1A, acyl CoA synthetase, and some hypothetical proteins. Ab initio structural prediction of PfEMP1, KHARP, PfEMP2, PfEMP3, and PHIST shows

that these proteins are intrinsically disordered and can have varying number of protein-protein interactions depending on their lowest energy structure. Further in silico mathematical modeling of a single repeat unit of PfEMP1-PHIST is present 63-112 times along the periphery of a single knob.
CONCLUSIONS AND CLINICAL RELEVANCE: This study provides structural insight into the organization of the core knob components and uncovers novel proteins as knob components. This structural information can be used for the development of better vaccine design strategies or drug design to destabilize the knob structure, which is a major virulence determinant in P. falciparum malaria.

5: Ambekar A, Rao R, Agrawal A, Kathiresan P. Research on opioid substitution therapy in India: A brief, narrative review. Indian J Psychiatry. 2018 Jul-Sep;60(3):265-270. doi: 10.4103/psychiatry.IndianJPsychiatry_385_18. Review. PubMed PMID: 30405250; PubMed Central PMCID: PMC6201667.

Opioid dependence is a significant clinical and public health issue in India. Opioid substitution therapy (OST) is the most evidence-based treatment for opioid dependence. Although available in India for about three decades now, Indian research on this treatment modality has not been adequately reviewed so far. We conducted a narrative review of Indian research on OST. We conducted an online search for relevant literature in the peer-reviewed journals as well as the general online search for books and monographs. We present the findings of the review in the form of description of literature according to certain identified themes. Considering that methadone has became available in India, only recently, the Indian research on OST predominantly features buprenorphine as the agent. Effectiveness of OST among Indian opioid-dependent patients has been well established through prospective, experimental designs as well as through naturalistic studies using retrospective, chart-review approach. Naturalistic and observational postmarketing surveillance studies have demonstrated the safety of buprenorphine and methadone when used as OST. There are certain areas in which more research on OST will be beneficial for Indian clinicians as well as policy-makers. However, the quantum of evidence base that exists in India is more than adequate to justify the scale-up of this modality of treatment. A conducive policy environment for scaling-up OST is need of the hour.

6: Anand S, Dhua AK, Bhatnagar V, Kandasamy D, Arava S. Chest Wall Fibromatosis with Congenital Muscular Torticollis: Two Forms of Deep Fibromatosis in a Child. J Indian Assoc Pediatr Surg. 2018 Jul-Sep;23(3):153-155. doi: 10.4103/jiaps.JIAPS_230_17. PubMed PMID: 30050265; PubMed Central PMCID: PMC6042173.

Desmoid tumors (fibromatosis) are intermediate grade, locally aggressive soft-tissue tumors. A rare case of chest wall fibromatosis in a girl with congenital muscular torticollis is being reported. This report also highlights the need for long-term surveillance in such cases, despite being a benign pathology.

7: Arif N, Rawre J, Patra S, Sreenivas V, Khanna N, Dhawan B. Increase in prevalence of Ureaplasma spp. in patients with genital tract infections in a tertiary care hospital of North India. Indian J Dermatol Venereol Leprol. 2018 Jul-Aug;84(4):457-458. doi: 10.4103/ijdvl.IJDVL_862_17. PubMed PMID: 29770783.

8: Aron N, Sinha R, Sharma N, Agarwal T. Isoexpansile sulfur hexafluoride gas to repair near-total iris disinsertion. J Cataract Refract Surg. 2018 Oct;44(10):1175-1178. doi: 10.1016/j.jcrs.2018.06.024. Epub 2018 Jul 27. PubMed PMID: 30060901.

Iridodialysis is commonly encountered after blunt trauma to the eye. Most iris detachments are small, superior, and asymptomatic and require no surgical intervention. However, large areas of iridodialysis require early surgical repair to prevent the onset of iris necrosis, pigment dispersion, and secondary glaucoma. Suture fixation of iris to the sclera is the most commonly used method

for iris repair; however, this technique becomes difficult in cases of near-total iris disinsertion, even in expert hands. We describe a case of posttraumatic near-total iris disinsertion with subluxated cataract managed with phacoemulsification and iris preservation with the help of intracameral injection of isoexpansile sulfur hexafluoride.

9: Arora A, Pandey SK, Roychoudhury A, Bhutia O, Tandon R, Gagnani SP, Yadav R. Piezoelectric harvest of osteo-odonto-lamina in modified osteo-odonto keratoprosthesis: A maxillofacial perspective. Natl J Maxillofac Surg. 2018 Jul-Dec;9(2):167-173. doi: 10.4103/njms.NJMS_32_16. PubMed PMID: 30546231; PubMed Central PMCID: PMC6251291.

Purpose: We describe the piezo-osteotomy feasibility in rehabilitation and harvesting of osteo-odonto lamina in modified osteo-odonto keratoprosthesis (MOOKP) surgery. Surgery was evaluated regarding operative technique and success of the keratoprosthesis (KPros) in terms of perception to light (+ve) to finger counting (+ve).
Materials and Methods: This retrospective cohort study included 12 patients undergone MOOKP surgery procedures. Harvesting of osteo-odonto-lamina was performed using piezosurgical osteotomy during 2007-2012.
Results: The mean follow up was 34 months (range 24-48 months). Of the 12 patients six patients had vision ≥6/12, four patients had vision <6/12, but >6/60 and one patients had vision ≤6/60. KPros was retained and functional in all the eyes after a minimum follow up of 24 months. There was mucosal overgrowth over the optical cylinder occurred in two cases over 4 years follow up which was corrected with trimming. Postoperative complication at donor site was seen in three cases, two cases with exposure of root of adjacent teeth and oro antral fistula in one.
Conclusions: This study suggests that piezoelectric harvest of osteo-odonto-lamina is a valuable surgical option in patients undergoing MOOKP surgery, resulting in high success rate with less complication.

10: Arora NK, Nair MKC, Gulati S, Deshmukh V, Mohapatra A, Mishra D, Patel V, Pandey RM, Das BC, Divan G, Murthy GVS, Sharma TD, Sapra S, Aneja S, Juneja M, Reddy SK, Suman P, Mukherjee SB, Dasgupta R, Tudu P, Das MK, Bhutani VK, Durkin MS, Pinto-Martin J, Silberberg DH, Sagar R, Ahmed F, Babu N, Bavdekar S, Chandra V, Chaudhuri Z, Dada T, Dass R, Gourie-Devi M, Remadevi S, Gupta JC, Handa KK, Kalra V, Karande S, Konanki R, Kulkarni M, Kumar R, Maria A, Masoodi MA, Mehta M, Mohanty SK, Nair H, Natarajan P, Niswade AK, Prasad A, Rai SK, Russell PSS, Saxena R, Sharma S, Singh AK, Singh GB, Sumaraj L, Suresh S, Thakar A, Parthasarathy S, Vyas B, Panigrahi A, Saroch MK, Shukla R, Rao KVR, Silveira MP, Singh S, Vajaratkar V. Neurodevelopmental disorders in children aged 2-9 years: Population-based burden estimates across five regions in India. PLoS Med. 2018 Jul 24;15(7):e1002615. doi: 10.1371/journal.pmed.1002615. eCollection 2018 Jul. PubMed PMID: 30040859; PubMed Central PMCID: PMC6057634.

BACKGROUND: Neurodevelopmental disorders (NDDs) compromise the development and attainment of full social and economic potential at individual, family, community, and country levels. Paucity of data on NDDs slows down policy and programmatic action in most developing countries despite perceived high burden.
METHODS AND FINDINGS: We assessed 3,964 children (with almost equal number of boys and girls distributed in 2-<6 and 6-9 year age categories) identified from five geographically diverse populations in India using cluster sampling technique (probability proportionate to population size). These were from the North-Central, i.e., Palwal (N = 998; all rural, 16.4% non-Hindu, 25.3% from scheduled caste/tribe [SC-ST] [these are considered underserved communities who are eligible for affirmative action]); North, i.e., Kangra (N = 997; 91.6% rural, 3.7% non-Hindu, 25.3% SC-ST); East, i.e., Dhenkanal (N = 981; 89.8% rural, 1.2% non-Hindu, 38.0% SC-ST); South, i.e., Hyderabad (N = 495; all urban, 25.7% non-Hindu, 27.3% SC-ST) and West, i.e., North Goa (N = 493; 68.0% rural, 11.4% non-Hindu, 18.5% SC-ST). All children were assessed for vision impairment (VI), epilepsy (Epi), neuromotor impairments including cerebral palsy (NMI-CP), hearing

impairment (HI), speech and language disorders, autism spectrum disorders (ASDs), and intellectual disability (ID). Furthermore, 6-9-year-old children were also assessed for attention deficit hyperactivity disorder (ADHD) and learning disorders (LDs). We standardized sample characteristics as per Census of India 2011 to arrive at district level and all-sites-pooled estimates. Site-specific prevalence of any of seven NDDs in 2-<6 year olds ranged from 2.9% (95% CI 1.6-5.5) to 18.7% (95% CI 14.7-23.6), and for any of nine NDDs in the 6-9-year-old children, from 6.5% (95% CI 4.6-9.1) to 18.5% (95% CI 15.3-22.3). Two or more NDDs were present in 0.4% (95% CI 0.1-1.7) to 4.3% (95% CI 2.2-8.2) in the younger age category and 0.7% (95% CI 0.2-2.0) to 5.3% (95% CI 3.3-8.2) in the older age category. All-site-pooled estimates for NDDs were 9.2% (95% CI 7.5-11.2) and 13.6% (95% CI 11.3-16.2) in children of 2-<6 and 6-9 year age categories, respectively, without significant difference according to gender, rural/urban residence, or religion; almost one-fifth of these children had more than one NDD. The pooled estimates for prevalence increased by up to three percentage points when these were adjusted for national rates of stunting or low birth weight (LBW). HI, ID, speech and language disorders, Epi, and LDs were the common NDDs across sites. Upon risk modelling, noninstitutional delivery, history of perinatal asphyxia, neonatal illness, postnatal neurological/brain infections, stunting, LBW/prematurity, and older age category (6-9 year) were significantly associated with NDDs. The study sample was underrepresentative of stunting and LBW and had a 15.6% refusal. These factors could be contributing to underestimation of the true NDD burden in our population.
CONCLUSIONS: The study identifies NDDs in children aged 2-9 years as a significant public health burden for India. HI was higher than and ASD prevalence comparable to the published global literature. Most risk factors of NDDs were modifiable and amenable to public health interventions.

11: Bag S, Ghosh TS, Banerjee S, Mehta O, Verma J, Dayal M, Desigamani A, Kumar P, Saha B, Kedia S, Ahuja V, Ramamurthy T, Das B. Molecular Insights into Antimicrobial Resistance Traits of Commensal Human Gut Microbiota. Microb Ecol. 2018 Jul 16. doi: 10.1007/s00248-018-1228-7. [Epub ahead of print] PubMed PMID: 30009332.

Antimicrobial resistance (AMR) among bacterial species that resides in complex ecosystems is a natural phenomenon. Indiscriminate use of antimicrobials in healthcare, livestock, and agriculture provides an evolutionary advantage to the resistant variants to dominate the ecosystem. Ascendency of resistant variants threatens the efficacy of most, if not all, of the antimicrobial drugs commonly used to prevent and/or cure microbial infections. Resistant phenotype is very common in enteric bacteria. The most common mechanisms of AMR are enzymatic modifications to the antimicrobials or their target molecules. In enteric bacteria, most of the resistance traits are acquired by horizontal gene transfer from closely or distantly related bacterial population. AMR traits are generally linked with mobile genetic elements (MGEs) and could rapidly disseminate to the bacterial species through horizontal gene transfer (HGT) from a pool of resistance genes. Although prevalence of AMR genes among pathogenic bacteria is widely studied in the interest of infectious disease management, the resistance profile and the genetic traits that encode resistance to the commensal microbiota residing in the gut of healthy humans are not well-studied. In the present study, we have characterized AMR phenotypes and genotypes of five dominant commensal enteric bacteria isolated from the gut of healthy Indians. Our study revealed that like pathogenic bacteria, enteric commensals are also multidrug-resistant. The genes encoding antibiotic resistance are physically linked with MGEs and could disseminate vertically to the progeny and laterally to the distantly related microbial species. Consequently, the AMR genes present in the chromosome of commensal gut bacteria could be a potential source of resistance functions for other enteric pathogens.

12: Bagra I, Krishnan V, Rao R, Agrawal A. Does Cannabis Use Influence Opioid Outcomes and Quality of Life Among Buprenorphine Maintained Patients? A Cross-sectional, Comparative Study. J Addict Med. 2018 Jul/Aug;12(4):315-320.

doi: 10.1097/ADM.0000000000000406. PubMed PMID: 29543612.

OBJECTIVES: Use of various psychoactive substances can influence outcomes of patients on opioid agonist treatment (OAT). While use of alcohol and cocaine has shown to adversely affect OAT results, associated cannabis use shows mixed results. This study aimed to assess the pattern of cannabis use among opioid-dependent patients maintained on buprenorphine. Additionally, the study compared the dose of buprenorphine, opioid-related craving and withdrawals, productivity, and also quality of life between those with and without recent (past 90-day) cannabis use.
METHODS: We collected data on demographic and drug use details in 100 randomly selected adult male patients attending a community drug treatment clinic, who were stabilized on buprenorphine for more than 3 months. Other measures included scores on World Health Organization (WHO)-Alcohol, Smoking and Substance Involvement Screening Tool and WHO-Quality of Life-Brief (WHOQOL-Bref) version.
RESULTS: The average duration of maintenance treatment with buprenorphine was 96 months, with excellent compliance for buprenorphine (86.92±9.58 days in 90 days). Thirty-five per cent had used cannabis in past 90 days, with lifetime use of cannabis in 77%. Participants using cannabis currently were on lower doses of buprenorphine (mean dose per day: 7.9mg vs 8.9mg; P=0.04). Yet, there was no significant difference in the rates of opioid use or opioid withdrawals and craving between the 2 groups. Compliance to OAT, number of days of employment, daily earning, and WHOQOL-Bref scores in all domains were comparable between those with and without cannabis use. Duration of cannabis use, current use of alcohol, and dose of buprenorphine predicted current cannabis use in multivariable logistic regression analysis.
CONCLUSIONS: Cannabis use does not negatively influence opioid outcomes among patients receiving buprenorphine maintenance treatment. There is no difference in productivity and quality of life between individuals maintained on buprenorphine with and without current cannabis use.

13: Balaji V, Kapil A, Shastri J, Pragasam AK, Gole G, Choudhari S, Kang G, John J. Longitudinal Typhoid Fever Trends in India from 2000 to 2015. Am J Trop Med Hyg. 2018 Sep;99(3_Suppl):34-40. doi: 10.4269/ajtmh.18-0139. Epub 2018 Jul 24. PubMed PMID: 30047367; PubMed Central PMCID: PMC6128365.

A very high incidence of typhoid was described in studies conducted in urban locations on the Indian subcontinent at the end of the twentieth century. Despite their availability, licensed immunogenic conjugate typhoid vaccines have not been introduced in the national immunization program, in part, because of a lack of understanding of where and for whom prevention is most necessary. Uncertainty regarding the burden of disease is based on the lack of reliable, recent estimates of culture-confirmed typhoid and an observed trend of low isolations of Salmonella Typhi and fewer complications at large referral hospitals in India. In this article, we examine the trends of S. Typhi isolation at three large tertiary care centers across India over 15 years and describe trends of recognized risk factors for typhoid from published literature. There appears to be a decline in the isolation of S. Typhi in blood cultures, which is more apparent in the past 5 years. These trends are temporally related to economic improvement, female literacy, and the use of antibiotics such as cephalosporins and azithromycin. The analysis of trends of culture-confirmed typhoid may not accurately capture the typhoid incidence trends if antibiotic use confounds the burden of disease presenting to larger facilities. Emerging antimicrobial resistance may result in a resurgence of disease if the underlying incidence and transmission of typhoid are not adequately addressed through public health approaches.

14: Balhara YPS, Mahapatra A, Sharma P, Bhargava R. Problematic internet use among students in South-East Asia: Current state of evidence. Indian J Public Health. 2018 Jul-Sep;62(3):197-210. doi: 10.4103/ijph.IJPH_288_17. Review. PubMed PMID: 30232969.

Problematic Internet use (PIU) among students has become a significant mental

health concern. Our goals were to review the existing studies on problematic Internet from Southeast Asian Region and examine: the prevalence for PIU among students; explore for sociodemographic and clinical correlates; and assess the physical, mental, and psychosocial impact of PIU in this population. All studies conducted among population of the Southeast Asia, involving students (school students to postgraduate students) of any age which explored etiological factors and/or the prevalence or any other factor associated with PIU/Internet addiction were considered eligible for the present review. The electronic databases of PubMed and Google Scholar were systematically searched for the relevant published studies up to and including October 2016. Our search strategy yielded 549 articles, 295 of which were eligible for screening based on their publication in English language in a peer-reviewed journal. Of these, a total of 38 studies met the inclusion criteria and were included in the review. The prevalence of severe PIU/Internet addiction ranged from 0 to 47.4%, whereas the prevalence of Internet overuse/possible Internet addiction ranged from 7.4% to 46.4% among students from Southeast Asia. Physical impairments in the form of insomnia (26.8%), daytime sleepiness (20%), and eye strain (19%) were also reported among problem users. There is a need to conduct further research in this area to explore the protective and risk factors associated with it and also longitudinally assess the trajectories of the outcome.

15: Balhara YPS, Parmar A, Sarkar S. Use of Tramadol for Management of Opioid Use Disorders: Rationale and Recommendations. J Neurosci Rural Pract. 2018 Jul-Sep;9(3):397-403. doi: 10.4103/jnrp.jnrp_42_18. PubMed PMID: 30069098; PubMed Central PMCID: PMC6050785.

Opioids are one of the most common illicit psychoactive substances being used in India. In fact, opioid use disorders are the most common disorder presenting to the substance use disorder treatment centers across the country. Effective and evidence-based interventions are available for management of opioid use disorders. However, the treatment for opioid use disorders remains difficult to access for most of those in need in India. The current article presents the literature on the use of tramadol for the management of opioid use disorders. It also makes recommendations on the use of tramadol for the management of opioid use disorders. Tramadol offers a viable alternative to the existing options for the management of opioid use disorders. It has been found effective when used for this indication. It offers certain major advantages such as easy and wide availability and low abuse liability. It offers a good option to expand the treatment services for opioid use disorders across the country.

16: Balhara YPS. Behavioural addictions: Need to correct misnomers. Asian J Psychiatr. 2018 Aug;36:118. doi: 10.1016/j.ajp.2018.07.014. Epub 2018 Jul 24. PubMed PMID: 30064046.

17: Bansal D, Seth T, Kumar R, Saxena R, Mishra P, Xess I. Efficacy of Posaconazole Prophylaxis in Patients with Acute Myeloid Leukemia Undergoing Induction Chemotherapy: An Observational Study in Resource Limited Settings. Indian J Hematol Blood Transfus. 2018 Jul;34(3):460-465. doi: 10.1007/s12288-018-0916-2. Epub 2018 Jan 13. PubMed PMID: 30127553; PubMed Central PMCID: PMC6081345.

Large randomized controlled trials have shown significant decrease in incidence of invasive fungal infection in acute myeloid leukemia patients with Posaconazole prophylaxis. However, very less is known about value of Posaconazole prophylaxis in resource limited settings. This observational cohort study evaluated the incidence of fungal infection in patients with hematological malignancies undergoing induction chemotherapy with Posaconazole as antifungal prophylaxis and was compared with historical controls who received Fluconazole as fungal prophylaxis. The study was conducted from Oct 2013 to July 2015 in Department of Hematology of a tertiary care center. Fifty-three patients of acute myeloid leukemia on Posaconazole as fungal prophylaxis and 53 historical controls on Fluconazole as fungal prophylaxis were included for final analysis. Baseline

characteristics were well matched between groups. Patients on Fluconazole were more likely to experience breakthrough IFDs (28.3 and 11.3%; p = 0.028) than in patients receiving Posaconazole prophylaxis. No significant difference was observed in overall, attributable mortality or in shift to first line antifungal. Both Posaconazole and Fluconazole were well tolerated with no major adverse effects requiring discontinuation of the drug. Minor side effects were seen in 39 and 47% patients in study and control group respectively. Vomiting and nausea were the commonest side effects seen in both study and control group (26 vs. 34% and 38 vs. 40% of patients, respectively). The results of our study in patients with acute myeloid leukemia provide evidence that Posaconazole prophylaxis significantly decreases the incidence of fungal infection and is well tolerated.

18: Batabyal T, Muthukrishnan SP, Sharma R, Tayade P, Kaur S. Neural substrates of emotional interference: A quantitative EEG study. Neurosci Lett. 2018 Oct 15;685:1-6. doi: 10.1016/j.neulet.2018.07.019. Epub 2018 Jul 18. PubMed PMID: 30009875.

Emotional stimuli are known to capture attention and disrupt the executive functioning. However, the dynamic interplay of neural substrates of emotion and executive attentional network is widely unexplored. The present study attempts to elucidate the areas implicated during emotional interference condition. Fifteen right handed individuals [24.64 ± 2.63 years] performed two emotional interference tasks - Face Word Interference and Word Face Interference. Single trial EEG was recorded during baseline (eyes open) and during the tasks. The activity of the cortical sources was compared between the tasks and baseline for 66 gyri using sLORETA software. Eighteen gyri in Face Word Interference and fifty-four gyri in Word Face Interference have shown significantly decreased activity [$p < 0.05/66$] with respect to baseline respectively. Interestingly, in both the interference tasks, there was disengagement of fronto-parietal attentional networks (implicating the probable ability of emotional stimuli to disrupt cognition) and the areas associated with default mode network. Further, during baseline there was significant activity in premotor cortical areas, which may be due to active inhibition of motor movements associated with response.

19: Bhardwaj N, Khurana S, Kumar S, Sagar S, Gupta A, Mishra B, Soni KD, Mathur P. CD14+ Monocytic Cytokines: Impact on Outcome in Severely Injured Patients. Indian J Crit Care Med. 2018 Jul;22(7):528-532. doi: 10.4103/ijccm.IJCCM_442_17. PubMed PMID: 30111929; PubMed Central PMCID: PMC6069305.

Introduction: Trauma is one of the leading causes of mortality worldwide. Trauma patients, who presented to the hospital casualty department within 24 h of injury, further admitted to the Surgical Intensive Care Unit were enrolled in this study.
Materials and Methods: The aim was to study the peripheral blood monocyte activity to produce tumor necrosis factor (TNF-α), interleukin-1 (IL-1) β, IL-6, and IL-8 in severely injured patients after trauma.
Result: A total of 28 polytrauma patients were enrolled and observed that the levels of TNF-α, IL-1 β, IL-6, and IL-8 were significantly decreased and levels of IL-8 were increased in the fatal patients compared to the healthy controls.
Conclusion: After trauma, an immediate hyperactivation of circulating monocytes is rapidly followed by a substantial paralysis of cell function. Decreased activity of monocytes can be used to identify potential fatal immunological disruption. Since immunological disruption occurs before clinical symptoms; our study proposes an immunological prognostication score for trauma victims.

20: Bhatia D, Sinha A, Hari P, Sopory S, Saini S, Puraswani M, Saini H, Mitra DK, Bagga A. Rituximab modulates T- and B-lymphocyte subsets and urinary CD80 excretion in patients with steroid-dependent nephrotic syndrome. Pediatr Res. 2018 Oct;84(4):520-526. doi: 10.1038/s41390-018-0088-7. Epub 2018 Jul 9. PubMed PMID: 29983411.

BACKGROUND: Rituximab, a monoclonal antibody targeting B lymphocytes, effectively

sustains remission in steroid-dependent nephrotic syndrome (SDNS). We studied its effects on lymphocyte subsets and urinary CD80 excretion (uCD80) in patients with SDNS.
METHODS: Blood and urine samples were collected from 18 SDNS patients before rituximab, and after 1 month and 1 year or at first relapse. T and B lymphocytes and uCD80 were determined by flow cytometry and ELISA, respectively.
RESULTS: Treatment was associated with reduction in counts of Th17, Th2, and memory T cells, and increased T-regulatory (Treg) cells. The Th17/Treg ratio declined from baseline (median 0.6) to 1 month (0.2, P = 0.006) and increased during relapse (0.3, P = 0.016). Ratios of Th1/Th2 cells at baseline, 1 month after rituximab, and during relapse were 7.7, 14.0 (P = 0.0102), and 8.7, respectively. uCD80 decreased 1 month following rituximab (45.5 vs. 23.0 ng/g creatinine; P = 0.0039). B lymphocytes recovered earlier in relapsers (60.0 vs.183.0 days; P < 0.001). Memory B cells were higher during relapse than remission (29.7 vs.18.0 cells/μL; P = 0.029).
CONCLUSION: Rituximab-induced sustained remission and B-cell depletion was associated with reduced numbers of Th17 and Th2 lymphocytes, and increased Treg cells; these changes reversed during relapses. Recovery of B cells and memory B cells predicted the occurrence of a relapse.

21: Bhatnagar N, Sharma S, Gautam VK, Kumar A, Tiwari A. Characteristics, management, and outcomes of spontaneous osteonecrosis of the knee in Indian population. Int Orthop. 2018 Jul;42(7):1499-1508. doi: 10.1007/s00264-018-3878-y. Epub 2018 Mar 18. PubMed PMID: 29552689.

PURPOSE: Spontaneous osteonecrosis of the knee affects the medial femoral condyle in patients above 55 years of age. Many reports and studies are available from western countries. But there is a gross paucity of literature on spontaneous osteonecrosis of the knee (SPONK) in the Indian subcontinent, either it is under-reported or detected at a later stage. The aim of our study was to detect SPONK in Indian population and describe its characteristics, treatment, and outcome.
MATERIAL AND METHOD: A prospective study was conducted over a period of three years. All patients above 18 years with knee pain at rest and medial condyle tenderness without joint laxity were evaluated with plain radiographs and MRI. Further tests were done if radiological signs of osteonecrosis were present. Various parameters were recoded like Visual Analog Scale (VAS), Knee Society Score (KSS), and MRI Osteoarthritis Knee Score. Conservative treatment consisted of a combination of NSAIDs and bisphosphonates. Decompression with bone grafting was done if there was no improvement or deterioration at three month follow-up.
RESULTS: Ten patients were diagnosed with SPONK. The mean age was 50 years with male predominance (60%) with the involvement of medial femoral condyle (80%) or left knee (70%). Most cases were in Koshino stage 1. Mean VAS was 6.5 and mean KSS was 59. All clinical parameters showed improvement at one year.
DISCUSSION: A study with a bigger sample size and longer follow-up is needed to fill the lacunae of literature on this topic from the Indian subcontinent. In spite of the limitations, we did observe that in our population, males were more commonly affected than females, which is contrary to most studies on the subject. Also, the disease had an early age of onset (50 years) in Indian population as compared to Western and East Asian populations.
CONCLUSION: Combined therapy of NSAIDs and bisphosphonates shows excellent results over a period of one year. Joint-preserving surgeries are effective even in Koshino stage 3 SPONK.

22: Bhatt SP, Guleria R, Vikram NK, Gupta AK. Non-alcoholic fatty liver disease is an independent risk factor for inflammation in obstructive sleep apnea syndrome in obese Asian Indians. Sleep Breath. 2018 Jul 22. doi: 10.1007/s11325-018-1678-7. [Epub ahead of print] PubMed PMID: 30032465.

INTRODUCTION: Obstructive sleep apnea (OSA) has been estimated to affect 4-11% of the population and causes systemic inflammation which leads to metabolic syndrome

(MS). Non-alcoholic fatty liver disease (NAFLD) is also associated with MS whether NAFLD is an additional risk factor for the systemic inflammation that occurs in OSA is unclear.
OBJECTIVE: In this study, we aimed to analyze the association of OSA and NAFLD with MS and systemic inflammation in Asian Indians.
METHODS: Total 240 (132 males and 108 females) overweight/obese subjects [body mass index (BMI >23 kg/m2)] were recruited; of these, 124 subjects had OSA with NAFLD, 47 had OSA without NAFLD, 44 did not have OSA but had NAFLD and 25 had neither OSA nor without NAFLD. Severity of NAFLD was based on abdomen ultrasound and of OSA on overnight polysomnography. Clinical examinations, anthropometry, body composition, metabolic parameters, and inflammatory biomarkers were recorded.
RESULTS: Serum levels of leptin, macrophage migration inhibitory factor (MIF), interleukin-6 (IL-6), high sensitive C-reactive protein (Hs-CRP), and tumor necrosis factor alpha (TNF-α) were significantly higher, and adiponectin levels were significantly lower in OSA with NAFLD subjects. Prevalence of MS was significantly increased in OSA and NAFLD subjects (p=0.001). There was a strong association and correlation between leptin, IL-6, Hs-CRP, MIF, and TNF-α in OSA and NAFLD subjects. Multivariate logistic regression showed that OSA was positively associated with the NAFLD [odds ratio (OR), (95% confidence interval (CL) 3.12 (2.58-7.72), (P=0.002)].
CONCLUSION: NAFLD is an additional risk factor in OSA subject which contributes to systemic inflammation in Asian Indians.

23: Bhatt SP, Guleria R, Vikram NK, Vivekanandhan S, Singh Y, Gupta AK. Association of inflammatory genes in obstructive sleep apnea and non alcoholic fatty liver disease in Asian Indians residing in north India. PLoS One. 2018 Jul 12;13(7):e0199599. doi: 10.1371/journal.pone.0199599. eCollection 2018. Erratum in: PLoS One. 2018 Aug 23;13(8):e0203182. PubMed PMID: 30001365; PubMed Central PMCID: PMC6042717.

BACKGROUND: Previous studies have indicated that variants of the high sensitive C-reactive protein (CRP), Interleukin (IL)-6 and leptin receptor (LEPR) genes are associated with the presence of obstructive sleep apnea (OSA) but not in non-alcoholic fatty liver disease (NAFLD) in Asian Indians. The study was conducted to investigate the association of CRP rs1130864 (1444C/T), IL-6 rs1800795 (-174G/C) and LEPR rs1137101 (Q223R) genes with OSA and NAFLD in Asian Indians residing in North India.
METHODS: 240 overweight/ obese subjects [body mass index (BMI>23kg/m2)], 124 with OSA and with NAFLD (group 1), 47 with OSA without NAFLD (group 2), 44 without OSA and with NAFLD (group 3) and 25 without OSA and without NAFLD (group 4) were recruited in this study. The severity of NAFLD was based on abdomen liver ultrasound and of OSA on overnight polysomnography. Clinical details, anthropometry profile, body composition, biochemical parameters and inflammatory markers were measured. Polymerase chain reaction and restriction fragment length polymorphism of CRP, IL-6 and LEPR gene was performed. The associations of these polymorphisms with clinical, anthropometric and biochemical profiles were investigated. The genotypes were confirmed by DNA sequencing analysis.
RESULTS: The C, T and R alleles of IL-6, CRP and LEPR genes was more frequent in OSA and NAFLD subjects and significantly correlated with higher protein levels. The prevalence of variant genotypes C/T of CRP, G/C of IL-6 and Q/R of LEPR genes was significantly higher in OSA subjects as compared to non OSA subjects. Further, C/C genotype of IL-6 (G/C), T/T of CRP (C/T) and RR genotype of LEPR (Q/R) was associated with significantly higher BMI, fat mass (kg), % body fat, waist circumference, serum triglycerides, total cholesterol, alkaline phosphate, aspartate transaminase and fasting insulin levels in OSA and NAFLD subjects. Using a multivariate analysis, the combined effect of three polymorphisms of CRP, IL-6 and LEPR gene variants on OSA and NAFLD risk was evaluated. Odds ratio for OSA and NAFLD with the combination of the three gene polymorphisms increased to 2.84 (95% CI: 1.08-6.54; p = 0.04) even when adjusted for sex, age and BMI.
CONCLUSION: Polymorphisms of pro-inflammatory cytokine genes were associated with increased risk of OSA and NAFLD in Asian Indians.

24: Bhoi D, Acharya P, Talawar P, Malviya A. Continuous erector spinae plane local anesthetic infusion for perioperative analgesia in pediatric thoracic surgery. Saudi J Anaesth. 2018 Jul-Sep;12(3):502-503. doi: 10.4103/sja.SJA_243_18. PubMed PMID: 30100864; PubMed Central PMCID: PMC6044163.

25: Bindu B, Prabhakar H, Chavali S. Gas analyzer aberrancy: Due to disinfectant? J Anaesthesiol Clin Pharmacol. 2018 Jul-Sep;34(3):421-422. doi: 10.4103/joacp.JOACP_157_17. PubMed PMID: 30386041; PubMed Central PMCID: PMC6194825.

26: Bindu B, Mitra R, Singh GP, Phalak M. New Onset Persistent Refractory Hypertension after Medulloblastoma Excision in Children-An Indicator of Poor Prognosis: A Case Series. J Pediatr Neurosci. 2018 Jul-Sep;13(3):337-339. doi: 10.4103/JPN.JPN_127_17. PubMed PMID: 30271469; PubMed Central PMCID: PMC6144605.

Hypertension in the clinical setting of posterior fossa tumors is a known entity and occurs due to medullary compression by the tumor. Such hypertension usually responds to tumor excision. Postoperative hypertension occurring after posterior fossa tumor excision has been attributed to brain stem edema in a single report earlier, which resolved without any intervention. Here, we report two pediatric patients who developed new onset refractory, persistent postoperative hypertension after medulloblastoma excision, and discuss possible causes and the prognostic significance of this condition.

27: Bisht S, Chawla B, Dada R. Oxidative Stress and Polymorphism in MTHFR SNPs (677 and 1298) in Paternal Sperm DNA is Associated with an Increased Risk of Retinoblastoma in Their Children: A Case-Control Study. J Pediatr Genet. 2018 Sep;7(3):103-113. doi: 10.1055/s-0038-1667037. Epub 2018 Jul 11. PubMed PMID: 30105117; PubMed Central PMCID: PMC6087474.

Sperm DNA is considered as the most vulnerable to oxidative stress-induced damage that also impairs global sperm DNA methylation leading to sperm-associated pathologies. C677T and A1298C polymorphisms of the methylene tetrahydrofolate reductase (MTHFR) gene affect MTHFR enzyme activity. This study was planned as a case-control study to determine the MTHFR gene polymorphisms in the fathers of children affected with sporadic nonfamilial heritable retinoblastoma in an Indian population. MTHFR polymorphisms for single nucleotide polymorphisms 677 and 1298 were also determined in sporadic nonfamilial heritable retinoblastoma patients to estimate the risk for retinoblastoma development and to evaluate the role of MTHFR in retinoblastoma pathogenesis.

28: Biswas R, Gupta S, Haresh KP, Halder A, Rath GK. Giant cell glioblastoma with spinal and spinal leptomeningeal metastasis in a child: A rare presentation of a rare tumor. J Craniovertebr Junction Spine. 2018 Jul-Sep;9(3):202-204. doi: 10.4103/jcvjs.JCVJS_39_18. PubMed PMID: 30443141; PubMed Central PMCID: PMC6187891.

Giant cell glioblastoma (GCG) is a rare subtype of classic glioblastoma multiforme with favorable prognosis and little is known about its metastatic potential. We hereby present a unique case of GCG in a 7-year-old child who developed spinal and spinal leptomeningeal metastasis during adjuvant therapy. She succumbed to it in spite of salvage therapy.

29: Chakraborty D, Basu S, Ulaner GA, Alavi A, Kumar R. Diagnostic Role of Fluorodeoxyglucose PET in Breast Cancer: A History to Current Application. PET Clin. 2018 Jul;13(3):355-361. doi: 10.1016/j.cpet.2018.02.011. Review. PubMed PMID: 30100075.

Histologic subtype, receptor status, and other biologic factors greatly affect the avidity of breast malignancy on fluorodeoxyglucose (FDG) PET. FDG PET/computed tomography (CT) has demonstrated excellent value in the evaluation

of extra-axillary nodal and distant metastases. Patients with early-stage breast cancers do not benefit from FDG PET/CT; however, unsuspected distant metastases may be revealed by systemic staging of locally advanced breast cancers by FDG PET/CT, and this has substantial impact on patient management. FDG PET/CT has demonstrated value in the evaluation of treatment response and in detection of disease recurrence.

30: Chandna P, Srivastava N, Sharma A, Sharma V, Gupta N, Adlakha VK. Isolation of Scardovia wiggsiae using real-time polymerase chain reaction from the saliva of children with early childhood caries. J Indian Soc Pedod Prev Dent. 2018 Jul-Sep;36(3):290-295. doi: 10.4103/JISPPD.JISPPD_225_17. PubMed PMID: 30246752.

Aim: This study aimed to quantitatively assess the levels of Scardovia wiggsiae in caries-free and early childhood caries (ECC)- and severe ECC (SECC)-affected children using real-time polymerase chain reaction (RT-PCR).
Methods: Forty-five children aged <71 months were randomly recruited from the Outpatient Clinic at the Department of Pedodontics and Preventive Dentistry at Subharti Dental College and Hospital, Meerut, India. Fifteen children suffering from ECC, 15 with SECC, and 15 children without ECC were enrolled in the study. About 1-2 mL of unstimulated saliva was collected and subjected to microbial analysis using RT-PCR.
Results: The SECC group (n = 15) was found to have significantly higher mean relative 16s rRNA expression of S. wiggsiae (3.67) than both ECC (n = 15) and controls (n = 15) (1.69 and 0.85, respectively). S. wiggsiae was detected in 86.7% of the SECC and 60% ECC group and was detected negligibly in the control (caries free) group. The correlation of decayed, missing, or filled surface levels with 16s rRNA levels showed significant positive correlation with 16S rRNA in both ECC and SECC patients.
Conclusion: Salivary levels of S. wiggsiae were significantly associated with ECC in children. S. wiggsiae represents a new frontier in the microbial etiology of ECC. This may lead to the development of new antimicrobial agents targeted to this organism and improve the treatment of ECC.

31: Chaudhry R, Sreenath K, Agrawal SK, Valavane A. Legionella and Legionnaires' disease: Time to explore in India. Indian J Med Microbiol. 2018 Jul-Sep;36(3):324-333. doi: 10.4103/ijmm.IJMM_18_298. Review. PubMed PMID: 30429383.

Legionella pneumophila was first recognised as a fatal cause of pneumonia more than four decades ago, during the 1976-American Legion convention in Philadelphia, USA. Legionella spp. continue to cause disease outbreaks of public health significance, and at present, Legionnaires' disease (LD) has emerged as an important cause of community and hospital-acquired pneumonia. Parallel to this, the understanding of LD has also increased exponentially. However, the disease is likely to be underreported in many countries because of the dearth of common definitions, diagnostic tests and active surveillance systems. In this review, we outline the basic concepts of Legionella including clinical presentations, epidemiology, laboratory diagnosis and the status of LD in India. This article also summarises the progress of research related to Legionella in this country, identifying the research gaps and discussing priorities to explore this unexplored pathogen in India.

32: Chaudhuri R, Khanna K, Koundinya D, Pattnaik B, Vatsa D, Agrawal A, Ghosh B. Novel nuclear translocation of inositol polyphosphate 4-phosphatase is associated with cell cycle, proliferation and survival. Biochim Biophys Acta Mol Cell Res. 2018 Jul 30. pii: S0167-4889(18)30188-5. doi: 10.1016/j.bbamcr.2018.07.013. [Epub ahead of print] PubMed PMID: 30071275.

Inositol polyphosphate 4 phosphatase type I enzyme (INPP4A) has a well-documented function in the cytoplasm where it terminates the phosphatidylinositol 3-kinase (PI 3-K) pathway by acting as a negative regulator. In this study, we demonstrate for the first time that INPP4A shuttles between the cytoplasm and the nucleus.

Nuclear INPP4A is enzymatically active and in dynamic equilibrium between the nucleus and cytoplasm depending on the cell cycle stage, with highest amounts detected in the nucleus during the G0/G1 phase. Moreover, nuclear INPP4A is found to have direct proliferation suppressive activity. Cells constitutively overexpressing nuclear INPP4A exhibit massive apoptosis. In human tissues as well as cell lines, lower nuclear localization of INPP4A correlate with cancerous growth. Together, our findings suggest that nuclear compartmentalization of INPP4A may be a mechanism to regulate cell cycle progression, proliferation and apoptosis. Our results imply a role for nuclear-localized INPP4A in tumor suppression in humans.

33: Chaudhury A, Dendi VSR, Chaudhury M, Jain A, Kasarla MR, Panuganti K, Jain G, Ramanujam A, Rena B, Koyagura SR, Fogla S, Kumar S, Shekhawat NS, Maddur S. HSV1/2 Genital Infection in Mice Cause Reversible Delayed Gastrointestinal Transit: A Model for Enteric Myopathy. Front Med (Lausanne). 2018 Jul 17;5:176. doi: 10.3389/fmed.2018.00176. eCollection 2018. PubMed PMID: 30065927; PubMed Central PMCID: PMC6056620.

In an interesting investigation by Khoury-Hanold et al. (1), genital infection of mice with herpes simplex virus 1 (HSV1) were reported to cause multiple pelvic organ involvement and obstruction. A small subset of mice succumbed after the first week of HSV1 infection. The authors inferred that the mice died due to toxic megacolon. In a severe form of mechanical and/or functional obstruction involving gross dilation of the colon and profound toxemia, the presentation is called "toxic megacolon." The representative observations by Khoury-Hanold likely do not resemble toxic megacolon. The colon was only slightly dilated and benign appearing. Importantly, HSV1 infection affected the postjunctional mechanisms of smooth muscle relaxation like the sildenafil-response proteins, which may have been responsible for defective nitrergic neurotransmission and the delayed transit. Orally administered polyethylene glycol reversed the gastrointestinal "obstruction," suggesting a mild functional type of slowed luminal transit, resembling constipation, rather than toxic megacolon, which cannot be reversed by an osmotic laxative without perforating the gut. The authors suggest that the mice did not develop HSV1 encephalitis, the commonly known cause of mortality. The premature death of some of the mice could be related to the bladder outlet obstruction, whose backflow effects may alter renal function, electrolyte abnormalities and death. Muscle strip recordings of mechanical relaxation after electrical field stimulation of gastrointestinal, urinary bladder or cavernosal tissues shall help obtain objective quantitative evidence of whether HSV infection indeed cause pelvic multi-organ dysfunction and impairment of autonomic neurotransmission and postjunctional electromechanical relaxation mechanisms of these organs.

34: Chauhan M, Behera C, Madireddi S, Mandal S, Khanna SK. Sudden death due to an invasive mole in a young primigravida: Precipitous presentation masquerading the natural manner. Med Sci Law. 2018 Jul;58(3):189-193. doi: 10.1177/0025802418786120. Epub 2018 Jul 3. PubMed PMID: 29969941.

Pulmonary metastasis is a well-known complication of an invasive mole. However, sudden death due to haemoptysis resulting from a metastatic invasive mole is extremely rare. We report the sudden unexpected death of an 18-year-old primigravida following a molar pregnancy. The death event was complicated within a few days of presentation by a clinically unsuspected mole invading the lung vasculature with associated widespread metastatic calcifications in the liver and brain. Death was due to haemorrhagic shock as a result of massive haemoptysis resulting from the invasive mole metastasising to the pulmonary vasculature. This was substantiated with a post-mortem computed tomography and gross and histopathological findings at autopsy. This case highlights the need for a high index of suspicion about potentially life-threatening pulmonary metastasis in women with trophoblastic diseases.

35: Chauhan S, Sen S, Sharma A, Kashyap S, Tandon R, Pushker N, Vanathi M,

Chauhan SS. Loss of pRB in Conjunctival Squamous Cell Carcinoma: A Predictor of Poor Prognosis. Appl Immunohistochem Mol Morphol. 2018 Jul;26(6):e70-e76. doi: 10.1097/PAI.0000000000000592. PubMed PMID: 29489511.

Conjunctival squamous cell carcinoma (SCC) is the most common tumor of conjunctival epithelium. It is associated with risk of permanent visual impairment and has the capability to recur, metastasize, and cause death. Deregulation of cell cycle control has been reported in a number of malignancies. The aim of the present study was to assess expression of G1/S cell cycle regulatory proteins [retinoblastoma protein (pRb)/P16/cyclin D1] in conjunctival SCC. Forty-four prospective cases of conjunctival SCC from a tertiary eye care referral center in northern India were included in this study. American Joint Committee on Cancer (AJCC) staging was performed and patients were followed up for 46±3.2 months. pRb loss was seen in 87% and overexpression of p16 and cyclin D1 in 36% and 66%, respectively. Kaplan-Meier analysis revealed reduced disease-free survival in patients with pRb loss (P=0.006). On univariate analysis, pRb loss (P=0.02), orbital invasion (P=0.03), and AJCC stage ≥T3 (P=0.03) emerged as significant high-risk features. On multivariate analysis pRb loss emerged as the most significant poor prognostic indicator in conjunctival SCC cases. Our findings suggest pRb loss to be a useful indicator of aggressive behavior and is recommended for identifying high-risk conjunctival SCC patients.

36: Chawla A, Kumar V. Evaluating the efficacy of different techniques and irrigation solutions for removal of calcium hydroxide from the root canal system: A scanning electron microscope study. J Conserv Dent. 2018 Jul-Aug;21(4):394-400. doi: 10.4103/JCD.JCD_246_17. PubMed PMID: 30122820; PubMed Central PMCID: PMC6080173.

Aim: The aim of this scanning electron microscope study was to compare the efficacy of two techniques (EndoVac and EndoActivator) and two irrigating solutions (5.25% NaOCl in combination with 17% ethylenediaminetetraacetic acid vs. Savlon™) for removal of calcium hydroxide (CH) from the root canal walls.
Settings and Design: The study was carried out in the specialty of conservative dentistry and endodontics.
Materials and Methods: Forty single-canal human teeth were used. The specimens were de-coronated to obtain a standardized root length of 15 mm using a diamond disk. The canals were instrumented till F3 ProTaper and CH intracanal medicament placed in the root canal. One week later, teeth were randomly divided into one control group and six experimental groups according to different irrigation protocols with different techniques.
Statistical Analysis: Kruskal-Wallis test was conducted to analyze the effect of different treatment measures with respect to three regions of tooth.
Results: The results indicated that there was no statistically significant difference between the two irrigation solutions and two techniques.
Conclusion: To achieve the best adaptation of filling material after root canal treatment, it is crucial to remove intracanal medication from the root canal walls. However, none of the irrigation regimens and different techniques were able to completely remove the CH from the root canal wall.

37: Chawla R, Tripathy K, Meena S, Behera AK. Subretinal Hypopyon in Presumed Tubercular Uveitis: A Report of Two Cases. Middle East Afr J Ophthalmol. 2018 Jul-Dec;25(3-4):163-166. doi: 10.4103/meajo.MEAJO_187_17. PubMed PMID: 30765956; PubMed Central PMCID: PMC6348936.

Subretinal hypopyon is an uncommon entity which has been described in ocular infections and inflammations including endophthalmitis, acute retinal necrosis, and sympathetic ophthalmia. The authors report subretinal hypopyon in two cases of presumed tubercular uveitis which responded well to antitubercular therapy (ATT). The first case was a 47-year-old male with bilateral peripapillary chorioretinitis with a subretinal hypopyon. Tuberculosis was confirmed on biopsy of a cervical lymph node which revealed acid-fast bacilli. Case 2 was a 17-year-old male with unilateral involvement in the form of a choroidal granuloma

with disc edema and retinitis. In addition, a subretinal hypopyon was evident. Both these cases showed dramatic anatomical improvement with ATT. A novel finding of subretinal hypopyon is described in these cases of presumed ocular tuberculosis. It may be prudent to start empirical ATT early on detection of a subretinal hypopyon along with other manifestations compatible with tubercular etiology.

38: Chowdhury AR, Kumar KR, Sinha R. Major leak during controlled ventilation due to faulty exhaust valve missed during pre-use machine check. Indian J Anaesth. 2018 Jul;62(7):560-562. doi: 10.4103/ija.IJA_143_18. PubMed PMID: 30078863; PubMed Central PMCID: PMC6053888.

39: Chowdhury UK, Rizvi A, Narang R, Seth S, Kalaivani M, Hasija S, Kumari L. Mitral Valve Replacement Using Carpentier-Edwards Pericardial Bioprosthesis in Patients With Rheumatic Heart Disease Aged Below 40 Years: 17-Year Results. Heart Lung Circ. 2018 Jul;27(7):864-871. doi: 10.1016/j.hlc.2017.05.147. Epub 2017 Aug 1. PubMed PMID: 29029949.
BACKGROUND: This study was designed to evaluate patients aged less than 40 years implanted with tissue heart valves with respect to survival, thromboembolism, structural degeneration and quality of life.
METHODS: Between January, 2000 and December, 2016, 132 patients (51 males) with rheumatic heart disease underwent mitral valve replacement using Carpentier-Edwards, perimount, pericardial bioprostheses. The patients' ages ranged between 12 and 39 years (mean±SD 30.12±5.51 years).
RESULTS: The hospital and late mortality were 1.5% and 1.5% respectively. The total cumulative follow-up period was 1330.98 patient-years with a mean of 124.78±50.3 months (range, 1-204 months). The actuarial survival and actuarial event-free survival at 204 months was 96.9% (±0.01%) and 93.4%(±0.03%) respectively. There was one episode of thromboembolism (0.32 events per 100 patient years). Six (4.7%) patients underwent redo mitral valve replacement for severe bioprosthetic degeneration with stiffening and calcification using a Medtronic mechanical prosthesis (Medtronic Open Pivot, MN, USA).
CONCLUSIONS: We conclude that Carpentier-Edwards perimount pericardial prosthesis provides satisfactory clinical performance in a young population with a low risk of degeneration and other valve-related events.

40: Dabas Y, Xess I, Bakshi S, Mahapatra M, Seth R. Emergence of Azole-Resistant Aspergillus fumigatus from Immunocompromised Hosts in India. Antimicrob Agents Chemother. 2018 Jul 27;62(8). pii: e02264-17. doi: 10.1128/AAC.02264-17. Print 2018 Aug. PubMed PMID: 29891597; PubMed Central PMCID: PMC6105863.

This prospective study shows that the rate of azole-resistant Aspergillus fumigatus (ARAF) in an immunocompromised Indian patient population with invasive aspergillosis (IA) is low, 6/706 (0.8%). This low rate supports the continued use of voriconazole as the first line of treatment. However, the ARAF isolates from India in this study exhibited three kinds of unreported cyp51A mutations, of which two were at hot spots, G54R and P216L, while one was at codon Y431C.

41: Dadhwal V, Sharma A, Khoiwal K, Nakra T. Episiotomy scar endometriosis. Med J Armed Forces India. 2018 Jul;74(3):297-299. doi: 10.1016/j.mjafi.2017.06.004. Epub 2017 Aug 20. PubMed PMID: 30093779; PubMed Central PMCID: PMC6081211.

42: Dalal V, Kumar R, Kumar S, Sharma A, Kumar L, Sharma JB, Roy KK, Singh N, Vanamail P. Biomarker potential of IL-6 and VEGF-A in ascitic fluid of epithelial ovarian cancer patients. Clin Chim Acta. 2018 Jul;482:27-32. doi: 10.1016/j.cca.2018.03.019. Epub 2018 Mar 20. PubMed PMID: 29572186.

BACKGROUND: Ovarian cancer is represented with significantly higher mortality

rate predominately due to asymptomatic behaviour during initial disease course and at diagnosis majority patients already progressed to advanced stage. Acellular fraction of ascites in epithelial ovarian cancer (EOC) has been suggested to promote growth of tumor cells by providing ambient micro-environment for their proliferation. This acellular fraction contains multiple growth factors including IL-6 and VEGF-A, which were exploited to establish their bio-marker significance in EOC patients.
METHODS: IL-6 and VEGF-A levels in ascitic fluid of 30 EOC patients and 15 controls were measured using high sensitivity sandwich enzyme linked immune sorbent (ELISA) assay. Their levels were correlated with clinico-pathological characteristics and bio-marker potential was assessed.
RESULTS AND CONCLUSION: EOC patients showed significantly higher levels for IL-6 (median-5636 pg/ml) and VEGF-A (median-4556 pg/ml) in ascitic fluid compared to controls. Levels of IL-6 and VEGF-A significantly correlated with clinico-pathological parameters. ROC curves of IL-6 and VEGF-A showed absolute combination of sensitivity and specificity. Kaplan Meier analysis demonstrated that higher levels of IL-6 and VEGF-A were significantly associated with shorter progression free survival. Thus, this study revealed that IL-6 and VEGF-A have great potential to be used as superior bio-markers for progression free survival in future after validation in larger patients' cohort.

43: Dar HY, Lone Y, Koiri RK, Mishra PK, Srivastava RK. Microcystin-leucine arginine (MC-LR) induces bone loss and impairs bone micro-architecture by modulating host immunity in mice: Implications for bone health. Environ Pollut. 2018 Jul;238:792-802. doi: 10.1016/j.envpol.2018.03.059. Epub 2018 Apr 4. PubMed PMID: 29626823.

Osteoporosis or enhanced bone loss is one of the most commonly occurring bone conditions in the world, responsible for higher incidence of fractures leading to increased morbidity and mortality in adults. Bone loss is affected by various environmental factors including diet, age, drugs, toxins etc. Microcystins are toxins produced by cyanobacteria with microcystin-LR being the most abundantly found around the world effecting both human and animal health. The present study demonstrates that MC-LR treatment induces bone loss and impairs both trabecular and cortical bone microarchitecture along with decreasing the mineral density and heterogeneity of bones in mice. This effect of MC-LR was found due to its immunomodulatory effects on the host immune system, wherein MC-LR skews both T cell (CD4+ and CD8+ T cells) and B cell populations in various lymphoid tissues. MC-LR further was found to significantly enhance the levels of osteoclastogenic cytokines (IL-6, IL-17 and TNF-α) along with simultaneously decreasing the levels of anti-osteoclastogenic cytokines (IL-10 and IFN-γ). Taken together, our study for the first time establishes a direct link between MC-LR intake and enhanced bone loss thereby giving a strong impetus to the naïve field of "osteo-toxicology", to delineate the effects of various toxins (including cyanotoxins) on bone health.

44: Das B, Ghosh TS, Kedia S, Rampal R, Saxena S, Bag S, Mitra R, Dayal M, Mehta O, Surendranath A, Travis SPL, Tripathi P, Nair GB, Ahuja V. Analysis of the Gut Microbiome of Rural and Urban Healthy Indians Living in Sea Level and High Altitude Areas. Sci Rep. 2018 Jul 4;8(1):10104. doi: 10.1038/s41598-018-28550-3. PubMed PMID: 29973712; PubMed Central PMCID: PMC6031670.

The diversity and basic functional attributes of the gut microbiome of healthy Indians is not well understood. This study investigated the gut microbiome of three Indian communities: individuals residing in rural and urban (n = 49) sea level Ballabhgarh areas and in rural high altitude areas of Leh, Ladakh in North India (n = 35). Our study revealed that the gut microbiome of Indian communities is dominated by Firmicutes followed by Bacteroidetes, Actinobateria and Proteobacteria. Although, 54 core bacterial genera were detected across the three distinct communities, the gut bacterial composition displayed specific signatures and was observed to be influenced by the topographical location and dietary intake of the individuals. The gut microbiome of individuals living in Leh was

observed to be significantly similar with a high representation of Bacteroidetes and low abundance of Proteobacteria. In contrast, the gut microbiome of individuals living in Ballabhgarh areas harbored higher number of Firmicutes and Proteobacteria and is enriched with microbial xenobiotic degradation pathways. The rural community residing in sea level Ballabhgarh areas has unique microbiome characterized not only by a higher diversity, but also a higher degree of interindividual homogeneity.

45: Das CJ, Razik A, Sharma S. Positron emission tomography in prostate cancer: An update on state of the art. Indian J Urol. 2018 Jul-Sep;34(3):172-179. doi: 10.4103/iju.IJU_320_17. Review. PubMed PMID: 30034126; PubMed Central PMCID: PMC6034413.

Prostate cancer (PCa), one of the most common cancers in males, is a topic of active interest in imaging research. Positron emission tomography/computed tomography (PET/CT) and PET/magnetic resonance imaging (PET/MRI) have enabled the combination of morphologic and functional imaging with the promise of providing better information in guiding therapy. 18F-fluorodeoxyglucose, the workhorse radiopharmaceutical in PET imaging, has not found preference in PCa since these tumors show poor glucose uptake and can be obscured by the normal urinary excretion of the radiotracer. Hence, the last two decades have seen the development of multiple newer radiotracers and better optimization of the technical aspects of PET imaging. The combination of functional imaging and MRI holds great promise. We searched PubMed, Scopus, and Google Scholar for peer-reviewed literature concerning the advances and newer developments in the imaging of PCa between the years 2005 and 2017. This review aims at summarizing current evidence on the role of PET imaging in PCa and its impact on the diagnosis, staging, prognostication, response assessment, and restaging of this malignancy.

46: Das CJ, Razik A, Sharma S. Magnetic Resonance Imaging-Transrectal Ultrasound Fusion Biopsy of the Prostate-An Update. Semin Roentgenol. 2018 Jul;53(3):219-226. doi: 10.1053/j.ro.2018.04.003. Epub 2018 Apr 5. PubMed PMID: 30031415.

47: Das CJ, Soneja M, Tayal S, Chahal A, Srivastava S, Kumar A, Baruah U. Role of radiological imaging and interventions in management of Budd-Chiari syndrome. Clin Radiol. 2018 Jul;73(7):610-624. doi: 10.1016/j.crad.2018.02.003. Epub 2018 Mar 15. Review. PubMed PMID: 29549997.

Budd-Chiari syndrome (BCS) is a clinical condition resulting from impaired hepatic venous drainage, in which there is obstruction to the hepatic venous outflow at any level from the small hepatic veins to the junction of the inferior vena cava and the right atrium leading to hepatic congestion. The diagnosis of BCS is based on imaging, which can be gathered from non-invasive investigations such as ultrasonography coupled with venous Doppler, triphasic computed tomography (CT) and magnetic resonance imaging (MRI). Apart from diagnosis, various interventional radiology procedures aid in the successful management of this syndrome. In this article, we present various imaging features of BCS along with various interventional procedures that are used to treat this diverse condition.

48: Das P, Rampal R, Udinia S, Kumar T, Pilli S, Wari N, Ahmed IK, Kedia S, Gupta SD, Kumar D, Ahuja V. Selective M1 macrophage polarization in granuloma-positive and granuloma-negative Crohn's disease, in comparison to intestinal tuberculosis. Intest Res. 2018 Jul;16(3):426-435. doi: 10.5217/ir.2018.16.3.426. Epub 2018 Jul 27. PubMed PMID: 30090042; PubMed Central PMCID: PMC6077298.

Background/Aims: Classical M1 macrophage activation exhibits an inflammatory phenotype while alternative M2 macrophage activation exhibits an anti-inflammatory phenotype. We aimed to determine whether there are discriminant patterns of macrophage polarization in Crohn's disease (CD) and intestinal

tuberculosis (iTB).
Methods: Colonic mucosal biopsies from 29 patients with iTB, 50 with CD, and 19 controls were examined. Dual colored immunohistochemistry was performed for iNOS/CD68 (an M1φ marker) and CD163/CD68 (an M2φ marker), and the ratio of M1φ to M2φ was assessed. To establish the innate nature of macrophage polarization, we analyzed the extent of mitochondrial depolarization, a key marker of inflammatory responses, in monocyte-derived macrophages obtained from CD and iTB patients, following interferon-γ treatment.
Results: M1φ polarization was more prominent in CD biopsies (P=0.002) than in iTB (P=0.2) and control biopsies. In granuloma-positive biopsies, including those in CD, M1φ predominance was significant (P=0.001). In iTB, the densities of M1φ did not differ between granuloma-positive and granuloma-negative biopsies (P=0.1). Interestingly, higher M1φ polarization in CD biopsies correlated with high inflammatory response exhibited by peripheral blood-derived monocytes from these patients.
Conclusions: Proinflammatory M1φ polarization was more common in colonic mucosa of CD patients, especially in the presence of mucosal granulomas. Further characterization of the innate immune system could help in clarifying the pathology of iTB and CD.

49: Das P, Rawat R, Verma AK, Singh G, Vallonthaiel AG, Yadav R, Gahlot GPS, Dinda AK, Ahuja V, Datta Gupta S, Agarwal SK, Makharia GK. Immunohistochemical Expression of Antitissue Transglutaminase 2 in Tissue Injuries: An Interpretation Beyond Celiac Disease. Appl Immunohistochem Mol Morphol. 2018 Jul;26(6):425-430. doi: 10.1097/PAI.0000000000000430. PubMed PMID: 27753658.

Tissue transglutaminase 2 enzyme plays a diverse role in intracellular and extracellular functioning. Aberrant expression of anti-TG2 antibody has recently been proposed for extraintestinal identification of celiac disease (CeD), but its utility is questionable. To examine whether anti-TG2 immunohistochemical (IHC) staining can be of diagnostic value in identifying extraintestinal involvement in CeD, tissue blocks of patients with IgA nephropathies (IgAN), minimal change disease, membranous glomerulonephritis, membrano-proliferative glomerulonephritis, normal kidney, intestinal biopsies from CeD, tropical sprue, nonspecific duodenitis, and inflammatory bowel disease; liver biopsies from patients with chronic hepatitis B and C, acute liver failure (ALF), and CeD-associated liver diseases were retrieved and subjected to IHC staining for anti-tissue transglutaminase 2 enzyme. H-score was calculated by multiplying the area of positivity and stain intensity. Anti-TG2 stain H-scores were almost similar in IgAN and non-IgANs (H-score 6.31±3 vs. 7.03±2.7); however, H-scores in both of these groups were significantly higher than in normal renal parenchyma (1.6±1.5). Only 6.2% patients with IgAN with anti-TG2 immunostain positivity showed a positive anti-tTG antibody serology and villous abnormalities, suggestive of CeD. Intestinal biopsies from patients with CeD, tropical sprue, nonspecific duodenitis, and inflammatory bowel disease also showed high anti-TG2 H-scores, with no statistically significant differences. Liver biopsies from patients with both ALF, as well as chronic liver diseases showed high anti-TG2 H-scores; with highest stain expression in ALF. In conclusion, IHC expression of anti-TG2 stain correlates with both acute and chronic tissue injuries, irrespective of etiology and organ involvement. It is not a reliable marker for diagnosis of CeD.

50: Dash D, Saluja A, Singh RK, Bhatia R, Tripathi M. Guillain-Barre Syndrome: A Rare Presentation of Borderline Tuberculoid Leprosy with Type 1 Lepra Reaction. J Neurosci Rural Pract. 2018 Jul-Sep;9(3):423-425. doi: 10.4103/jnrp.jnrp_510_17. PubMed PMID: 30069105; PubMed Central PMCID: PMC6050757.

Guillain-Barre syndrome (GBS) is an autoimmune polyradiculoneuropathy usually preceded by respiratory tract or gastrointestinal infection. The pathogenesis in GBS is based on molecular mimicry mechanism. Hansen's disease is common in India and is the most common infectious cause of neuropathy. We describe a 42-year-old man who was being treated for borderline tuberculoid leprosy and developed Type 1

lepra reaction followed by GBS and responded to plasmapheresis. Lepra reaction may lead to exposure of neural antigens, resulting in autoimmune mechanism and demyelination of peripheral nerves.

51: Deshpande S, Patil S, Singh N. Enhancing Gene-Knockdown Efficiency of Poly(N-isopropylacrylamide) Nanogels. ACS Omega. 2018 Jul 31;3(7):8042-8049. doi: 10.1021/acsomega.8b00738. Epub 2018 Jul 18. PubMed PMID: 30087933; PubMed Central PMCID: PMC6072245.

Polo-like-kinase 1 (PLK1), which is a serine-threonine protein kinase overexpressed in cancer cells, is known to regulate tumor growth and have recently gathered attention as a target gene for RNA interference because of the poor bioavailability and nonspecificity of the available inhibitors. However, the lower transfection efficiency of siRNA and its poor stability in biological mileu necessitate the need of efficient siRNA delivery systems. Here, we report efficacious polymeric nanoparticles for the delivery of PLK1 siRNA in mammalian cancer cells. N-Isopropylacrylamide (NIPAm) and N-isopropylmethacrylamide-co-NIPAm nanogels were synthesized and modified using poly-ε-lysine. Furthermore, their ability to induce gene silencing was investigated by flow cytometry and real-time polymerase chain reaction, and the silencing efficiency observed was related to the polymer composition and its effect on the gene loading and protection ability and the endosomal escape capability. This study attempts to leverage the understanding of the cell-material interaction, thus, addressing the bottlenecks of siRNA delivery for enhancing the efficacy of the poly(N-isopropylacrylamide)-based delivery vehicle.

52: Dhaked S, Sharma N, Chopra KK, Khanna A, Kumar R. Treatment seeking pathways in pediatric tuberculosis patients attending DOTS centers in urban areas of Delhi. Indian J Tuberc. 2018 Oct;65(4):308-314. doi: 10.1016/j.ijtb.2018.06.007. Epub 2018 Jul 30. PubMed PMID: 30522618.

BACKGROUND: The treatment seeking pathways prior to initiation of Direct Observed Treatment Short-course Therapy (DOTS), provides the extent of patient and health system delays among pediatric tuberculosis (TB) patients.
OBJECTIVES: The study attempted to understand the treatment seeking pathways of pediatric TB patients under revised national tuberculosis control program (RNTCP).
STUDY DESIGN AND SETTING: It was a prospective observational study carried out from January 2015 to December 2015. A predesigned, pretested and semi-structured questionnaire was used to interview 141 caregivers of pediatric patients (0-14 years) at two chest clinics selected purposively.
RESULTS: Thirteen different treatment seeking pathways were identified and fever was the commonest symptom (41.8%) for seeking care from 1st health facility. Median time taken from onset of symptoms to first consultation varied from 1 to 144 weeks. More than half of the study subjects were first taken to a private practitioner (64.5%) followed by a pharmacist (19.1%) and trust in provider was the commonest reason for choosing the first care-provider in 52 (41.1%), followed by easy access or convenience in 49 (34.8%).
CONCLUSION: A significant delay was found in treatment initiation of patients with extra pulmonary tuberculosis (EPTB), those belonging to lower socio-economic class families, low literacy level of parents, who went to private facility first and availed more than three health facilities before diagnosis.

53: Dhar P, Kaushal P, Kumar P. Antioxidant supplementation upregulates calbindin expression in cerebellar Purkinje cells of rat pups subjected to post natal exposure to sodium arsenite. Brain Res. 2018 Jul 1;1690:23-30. doi: 10.1016/j.brainres.2018.04.003. Epub 2018 Apr 6. PubMed PMID: 29630858.

Optimal cytoplasmic calcium (Ca2+) levels have been associated with adequate cell functioning and neuronal survival. Altered intracellular Ca2+ levels following impaired Ca2+ homeostasis could induce neuronal degeneration or even cell death. There are reports of arsenite induced oxidative stress and the associated

disturbances in intracellular calcium homeostasis. The present study focused on determining the strategies that would modulate tissue redox status and calcium binding protein (CaBP) (Calbindin D28k-CB) expression affected adversely by sodium arsenite (NaAsO2) exposure (postnatal) of rat pups. NaAsO2 alone or along with antioxidants (AOXs) (alpha lipoic acid or curcumin) was administered by intraperitoneal (i.p.) route from postnatal day (PND) 1-21 (covering rapid brain growth period - RBGP) to experimental groups and animals receiving sterile water by the same route served as the controls. At the end of the experimental period, the animals were subjected to euthanasia and the cerebellar tissue obtained therefrom was processed for immunohistochemical localization and western blot analysis of CB protein. CB was diffusely expressed in cell body as well as dendritic processes of Purkinje cells (PCs) along the PC Layer (PCL) in all cerebellar folia of the control and the experimental animals. The multilayered pattern of CB +ve cells along with their downregulated expression and low packing density was significantly evident in the arsenic (iAs) alone exposed group as against the controls and AOX supplemented groups. The observations are suggestive of AOX induced restoration of CaBP expression in rat cerebellum following early postnatal exposure to NaAsO2.

54: Dhiman A, Haldar S, Mishra SK, Sharma N, Bansal A, Ahmad Y, Kumar A, Sharma TK, Tyagi JS. Generation and application of DNA aptamers against HspX for accurate diagnosis of tuberculous meningitis. Tuberculosis (Edinb). 2018 Sep;112:27-36. doi: 10.1016/j.tube.2018.07.004. Epub 2018 Jul 10. PubMed PMID: 30205966.

Tuberculous meningitis (TBM) is the most severe manifestation of tuberculosis and its diagnosis remains a challenge even today due to the lack of an adequate test. HspX antigen of Mycobacterium tuberculosis was previously established as a reliable diagnostic biomarker for TBM in an ELISA test format using anti-HspX polyclonal antibodies. Towards overcoming the limitations of batch-to-batch variation and challenges of scalability in antibody generation, we utilized Systematic Evolution of Ligands by EXponential enrichment (SELEX) to develop high affinity DNA aptamers against HspX as an alternative diagnostic reagent. Post-SELEX optimization of the best-performing aptamer candidate, H63, established its derivative H63 SL-2 M6 to be superior to its parent. Aptamer H63 SL-2 M6 displayed a specific and high affinity interaction with HspX (Kd ~9.0×10-8 M). In an Aptamer Linked Immobilized Sorbent Assay (ALISA), H63 SL-2 M6 significantly differentiated between cerebrospinal fluid specimens from TBM and non-TBM subjects (n = 87, ***p < 0.0001) with ~100% sensitivity and ~91% specificity. Notably, ALISA exhibited comparable performance with previously reported antibody-based ELISA and qPCR. Altogether, our findings establish the utility of HspX aptamer for the reliable diagnosis of TBM and pave the way for developing an aptamer-based point-of-care test for TBM.

55: Eachempati KK, Malhotra R, Pichai S, Reddy AVG, Podhili Subramani AK, Gautam D, Bollavaram VR, Sheth NP. Results of trabecular metal augments in Paprosky IIIA and IIIB defects. Bone Joint J. 2018 Jul;100-B(7):903-908. doi: 10.1302/0301-620X.100B7.BJJ-2017-1604.R1. PubMed PMID: 29954197.

Aims: The advent of trabecular metal (TM) augments has revolutionized the management of severe bone defects during acetabular reconstruction. The purpose of this study was to evaluate patients undergoing revision total hip arthroplasty (THA) with the use of TM augments for reconstruction of Paprosky IIIA and IIIB defects.
Patients and Methods: A retrospective study was conducted at four centres between August 2008 and January 2015. Patients treated with TM augments and TM shell for a Paprosky grade IIIA or IIIB defect, in the absence of pelvic discontinuity, and who underwent revision hip arthroplasty with the use of TM augments were included in the study. A total of 41 patients with minimum follow-up of two years were included and evaluated using intention-to-treat analysis.
Results: There were 36 (87.8%) patients with a Paprosky IIIA defect and five (12.2%) patients with a Paprosky IIIB defect. The mean age was 56.7 years (28 to

94). There were 21 (51.2%) women and 20 (48.8%) men. The mean follow-up was 39.4 months (12 to 96). One (2%) patient died after eight years. No failures were noted in the series. The mean survivorship was 100% at the time of latest follow-up.
Conclusion: The results of this multicentre study showed encouraging short- and mid-term results for the use of TM augments in the management of Paprosky grade IIIA and IIIB defects. Cite this article: Bone Joint J 2018;100-B:903-8.

56: Gaba S, Wahal N, Gautam D, Pandit H, Kumar V, Malhotra R. Early Results of Oxford Mobile Bearing Medial Unicompartmental Knee Replacement (UKR) with the Microplasty Instrumentation: An Indian Experience. Arch Bone Jt Surg. 2018 Jul;6(4):301-311. PubMed PMID: 30175178; PubMed Central PMCID: PMC6110431.

Background: Oxford medial unicompartmental knee replacement (UKR) is indicated in patients with anteromedial osteoarthritis (AMOA) of the knee. Microplasty (MP) instrumentation was introduced in 2012 as an improvement over phase 3 instrumentation. Advantages of this instrumentation include conservative tibial cut, decreased tibial re-cut rate and improved component alignment. We report the results of UKR with the new instrumentation in a consecutive series with a minimum follow-up of 2 years.
Methods: A prospective study of 115 cemented medial Oxford UKRs implanted in 89 patients was done. Post-operative alignment of the tibial and femoral components was analysed. Patient reported outcome measures were recorded using Oxford Knee Score (OKS) and the American Knee Society Score (KSS). Tegner Activity Scale (TAS) was used to record the activity level.
Results: 115 consecutive medial Oxford UKRs were studied. All patients were followed up annually in this prospective ethically approved study. The mean follow-up was 36 months and the minimum follow-up was 25 months. No patient died and none were lost to follow-up. At the final follow-up, the average OKS of the cohort was 39.5 (SD: 5.7). 91.2 % of the patients had good or excellent OKS with only 3.5 % reporting poor OKS. The overall limb alignment was 4.80 varus (0 - 140 varus). Tibia was recut in 5.2 % of cases. Median bearing size was 3 (range: 3 to 6). There was one case of bearing dislocation and one case of aseptic tibial loosening.
Conclusion: This is the first study to report results of MP instrumentation at a minimum follow-up of 2 years. Our study indicates that the new instrumentation results in reliable and accurate implantation of femoral and tibial components in majority of the cases, with a decrease in number of alignment outliers, and also a reduced rate of bearing dislocation.

57: Ganger A, Gupta N, Tomar AS, Vanathi M, Tandon R. Infective keratitis in Indian patients with corneal dystrophies. Trop Doct. 2018 Jul;48(3):199-206. doi: 10.1177/0049475517736709. Epub 2017 Oct 17. PubMed PMID: 29041837.

All eight patients seen with various types of corneal dystrophy, a rare hereditary corneal disease, presented with infective keratitis. Unilateral microbial invasion was seen in all patients and the visual acuity of the affected eyes was <6/60 at presentation. We highlight our impression that microbial invasion can occur with all types of epithelial and stromal corneal dystrophy, including macular corneal dystrophy. Regular follow-up to maintain a healthy ocular surface is recommended to avert blindness in such patients.

58: Garg B, Mehta N. Current status of 3D printing in spine surgery. J Clin Orthop Trauma. 2018 Jul-Sep;9(3):218-225. doi: 10.1016/j.jcot.2018.08.006. Epub 2018 Aug 7. Review. PubMed PMID: 30202152; PubMed Central PMCID: PMC6128322.

Three-dimensional printing (3DP) is one of the latest tools in the armamentarium of the modern spine surgeon. The yearning to be more precise and reliable whilst operating on the spine has led to an interest in this technology which has claimed to achieve these goals. 3D printing has been used pre-operatively for surgical planning and for resident or patient education. It has also found its way to the operation theatre where it is used to fabricate customized surgical

tools or patient-specific implants. Several authors have highlighted significant benefits when 3D printing is used for specific indications in spine surgery. Novel applications of this technology in spine surgery have also been described and though still in a nascent stage, these are important for this technology to sustain itself in the future. However, major limitations have also come to light with this technology in use. This article seeks to review the current status and applications of 3D printing in spinal surgery and its major drawbacks while briefly describing the essentials of the technology. It is imperative that the modern spine surgeon knows about this important innovation and when and how it can be applied to improve surgical outcomes.

59: Gautam H, Agrawal SK, Verma SK, Singh UB. Cervical tuberculous lymphadenitis: Clinical profile and diagnostic modalities. Int J Mycobacteriol. 2018 Jul-Sep;7(3):212-216. doi: 10.4103/ijmy.ijmy_99_18. PubMed PMID: 30198498.

Background: Tuberculosis is a major global health problem. Tuberculous lymphadenopathy is a most common form of extrapulmonary tuberculosis (EPTB), constitutes 35% of all cases of EPTB. Due to the paucibacillary nature of specimens, smear microscopy and culture offer low sensitivity.
Methods: The aim of the present study was to find the clinicodemographic profiles and comparing the performance of Xpert MTB/RIF, conventional polymerase chain reaction (PCR), mycobacteria growth indicator tube (MGIT) 960, histopathological examination, and clinical follow-up of patients in diagnosing of smear-negative tuberculous lymphadenopathy.
Results: A total of 140 clinically suspected cervical tuberculous lymphadenitis cases were enrolled in this study. MGIT-960 culture, conventional PCR, and Xpert MTB/RIF were performed. Most of the patients presented with unilateral (87.14%), single (81.42%), matted (87.85%) lymph nodes, 3 cm-6 cm (52.14%), commonly in the right side (68.02%), and associated lung lesion was found in 12.86% of cases. The detection rates of Mycobacterium tuberculosis complex (MTBC) by Xpert MTB/RIF, conventional PCR, and MGIT were 25.71%, 20.71%, and 17.85%, respectively. Both the tests: Xpert MTB/RIF and PCR, PCR and MGIT, Xpert MTB/RIF and MGIT were positive in 15.71%, 15.71%, and 11.42% of cases, respectively. Most of the patients (74.1%) were cured with 6 months of antitubercular drugs.
Conclusion: Clinicians often face the diagnostic dilemmas presented in the study. Individual modalities of the diagnosis are available, but all have drawbacks with varied sensitivity and specificity. Combining the available clinical, radiological, and microbiological modality to reach early diagnosis can go a long way to avoid misdiagnosis and unnecessary delay in treatment, especially in cases, without the pulmonary involvement and fulfilling the aim of National Tuberculosis Control Programme for EPTB cases.

60: Goel N, Kumar V, Arora S, Ghosh B. Massive choroidal granuloma as the presenting feature of disseminated tuberculosis in immunocompetent patients. Clin Exp Optom. 2018 Jul;101(4):607-610. doi: 10.1111/cxo.12576. Epub 2017 Jul 12. PubMed PMID: 28702946.

61: Goel V, Kumar N, Saxena V, Chaturvedi H. Catheter Fracture of Subclavian Venous Chemoport Device at Costoclavicular Junction: Pinch-off Syndrome. Indian J Surg Oncol. 2018 Dec;9(4):595-597. doi: 10.1007/s13193-018-0802-2. Epub 2018 Jul 30. PubMed PMID: 30538396; PubMed Central PMCID: PMC6265163.

Chemoport is most commonly used venous access devices for instillation of chemotherapeutic drugs in cancer care. Mechanical complications like catheter fracture can lead to serious morbidity, albeit occurring rarely. We present a case of a 35-year-old lady, a case of carcinoma breast, who had spontaneous fracture of chemoport access device in subclavian vein at the level of clavicle after four successful cycles of chemotherapy. The fracture was suspected on chest x-ray and was subsequently confirmed on contrast linogram. The patient was successfully managed with endovascular interventional technique without suffering any ill effects. It is a rare presentation of pinch-off syndrome.

62: Gogia A, Deo SV, Shukla NK, Mathur S, Sharma DN, Tiwari A. Clinicopathological profile of breast cancer: An institutional experience. Indian J Cancer. 2018 Jul-Sep;55(3):210-213. doi: 10.4103/ijc.IJC_73_18. PubMed PMID: 30693880.

INTRODUCTION: This study was undertaken to evaluate the clinicopathological characteristics of patients with breast cancer at our institute, a tertiary-care cancer center in northern India.
MATERIALS AND METHODS: This retrospective study included all patients with breast cancer registered at our institute from January 1st, 2014 to December 31st, 2016. We retrieved data (demographic, baseline clinical characteristics, pathology, and treatment details) from prospectively maintained clinical case records. Patients with incomplete case records or missing baseline information were excluded.
RESULTS: We included 550 patients with breast cancer. The median age was 48 years (23-85). The median clinical tumor size was 5.0 cm. The TNM (AJCC-7th edition) stage distribution was stage I, 22 (4%); stage II, 182 (33%); stage III, 247 (44.9%); and stage IV, 99 (18%). Locally advanced breast cancer constituted 40% of the cases. Bone (48 [48.5%]) was the most common site for metastasis followed by lung. Infiltrating ductal carcinoma (528 [96%]) was the most common histologic subtype. Majority of patients, 325 (59%), were positive for estrogen receptor/progesterone receptor whereas 160 (29%) patients were HER2/neu positive. Triple negative breast cancer (TNBC) constituted 28% (154) of patients. In the nonmetastatic subgroup, 343 (76%) patients underwent modified radical mastectomy. Neoadjuvant chemotherapy (NACT) was given in 120 (26.6%) patients, of these 23 (19%) achieved pathological complete remission. Sequential anthracyline and taxane were used as NACT/adjuvant chemotherapy in most cases. Of the eligible patients, 48 (30%) received anti-HER2/neu therapy.
CONCLUSION: This is one of the largest comprehensive data from a single center in India. Majority of our patients are younger in age and have advanced disease. TNBC and HER2/neu positive breast cancer are more common in our population.

63: Gogia A, Das CK, Kumar L, Sharma A, Tiwari A, Sharma MC, Mallick S. Diffuse large B-cell lymphoma: An institutional analysis. South Asian J Cancer. 2018 Jul-Sep;7(3):200-202. doi: 10.4103/sajc.sajc_65_18. PubMed PMID: 30112341; PubMed Central PMCID: PMC6069326.

Introduction: Diffuse large B-cell lymphoma (DLBCL) is the most common subtype of non-Hodgkin's lymphoma. We conducted a retrospective study to analyze the clinicopathological characteristics, cell of origin, response to therapy, and the outcome of patients with DLBCL.
Materials and Methods: This was a retrospective study which included all patients with DLBCL registered at our center, between May 1, 2013, and July 31, 2015. The data regarding demography, clinical presentation, histopathology, stage, prognostic index, treatment, and treatment-related outcome were collected from prospectively maintained clinical case records of the patients.
Results: In the study, we included 267 patients. The median age is 49 (20-81) years with male: female ratio of 2:1. B symptoms were seen in 124 (45%) of patients. Early Stages (I and II) were seen in 130 (52%) patients, while advanced Stages (III and 1V) were seen in 119 (48%) patients. Bulky disease (>7.5 cm) was seen in 30% of cases, and bone marrow was involved in 12%. Extranodal involvement is present in 35% of cases. Cell of origin data was available in 160 (60%) of cases, of which 88 (55%) were germinal center and 72 (45%) were activated B cell in origin. The distribution according to the international prognostic index (IPI) was as follows: low risk 40%, intermediate risk 45%, and high risk in 15%. Rituximab was used in 45% of cases. The overall response rate was 84% with a complete response (CR) rate of 70.5%. The CR rates were better with RCHOP compared with CHOP (77% vs. 61.5%, P = 0.001) and good-risk IPI (83.3% vs. 65.2%, P < 0.001) compared with intermediate- and high-risk IPI. Median follow-up period was 24 months, and 2-year event-free survival (EFS) was 70%. The presence of B symptoms, high IPI, failure to attain CR, poor PS, and nonrituximab-based chemotherapy were significantly associated with lower EFS.
Conclusions: This is the first study from India, which investigated the impact of

chemotherapy with or without rituximab in context of cell of origin. Adding rituximab to CHOP showed better response rate and EFS irrespective of cell of origin.

64: Gogia A, Das CK, Kumar L, Sharma A, Sharma MC, Mallick S. Profile of non-Hodgkin lymphoma: An Indian perspective. South Asian J Cancer. 2018 Jul-Sep;7(3):162. doi: 10.4103/sajc.sajc_60_18. PubMed PMID: 30112329; PubMed Central PMCID: PMC6069337.

65: Gogia V, Venkatesh P, Garg SP, Takkar B, Sheemar A. Patterns of uveitis in patients with proven systemic (pulmonary and extrapulmonary) tuberculosis. Int Ophthalmol. 2018 Jul 18. doi: 10.1007/s10792-018-0989-9. [Epub ahead of print] PubMed PMID: 30022332.

PURPOSE: To report patterns of uveitis in patients with systemic tuberculosis.
METHODS: Records of patients presenting at uvea clinic of a tertiary eye care centre were evaluated retrospectively, and 47 cases with proven systemic tuberculosis were analyzed for patterns of uveitis. Tuberculosis had been proven with a combination of radio imaging and detection of acid fast bacilli in body fluids. All patients had been reviewed by a specialist as applicable before diagnosing tuberculosis. These patients had undergone a thorough ocular workup. Pattern of uveitis was the primary outcome measure.
RESULTS: Mean age was 35.34 ± 15.56 years. Lung was the commonest systemic focus, seen in nearly 75% of the cases. Anterior uveitis was the most common presentation (48.9%), followed by posterior (25.5%), panuveitis (10.6%) and intermediate uveitis (10.6%). Multifocal serpiginoid choroidopathy (MSC) was seen in only one patient, while granulomatous choroiditis was the commonest type of posterior uveitis.
CONCLUSIONS: Anterior uveitis is the most frequent type of uveitis seen in patients with proven systemic tuberculosis. Rarity of MSC in such patients indicates possibility of etiologies other than tuberculosis in causing MSC.

66: Gowda NC, Ray A, Soneja M, Khanna A, Sinha S. Evaluation of Xpert(®)Mycobacterium tuberculosis/rifampin in sputum-smear negative and sputum-scarce patients with pulmonary tuberculosis using bronchoalveolar lavage fluid. Lung India. 2018 Jul-Aug;35(4):295-300. doi: 10.4103/lungindia.lungindia_412_17. PubMed PMID: 29970767; PubMed Central PMCID: PMC6034363.

Context: Sputum smear-negative and sputum-scarce pulmonary tuberculosis (PTB) is a diagnostic challenge. Xpert® Mycobacterium tuberculosis/rifampin (MTB/RIF) provides a rapid diagnosis on high-quality biological specimen obtained by bronchoscopy.
Aims: The aim of this study is to evaluate Xpert® MTB/RIF on bronchoalveolar lavage (BAL) fluid in sputum smear-negative and sputum-scarce PTB patients.
Settings: Tertiary care hospital in India.
Design: This was prospective observational study.
Materials and Methods: Between January 2015 and November 2016, we prospectively recruited sputum-smear negative and sputum-scarce patients under evaluation for PTB and performed BAL. Sensitivity, specificity, positive, and negative predictive values were calculated for the diagnosis of PTB on BAL fluid for acid-fast bacilli smear and Xpert® MTB/RIF using liquid culture as the reference standard and compared to the final diagnosis based on composite reference standard. Sensitivity, specificity, and predictive values were calculated with 95% class intervals. McNemar's test was used for comparison of sensitivities.
Results: Of the 60 patients included, 52 (88.3%) had a final diagnosis of PTB and 16 (26.7%) were culture confirmed. Xpert® MTB/RIF had a sensitivity and specificity of 81% (54%-96%) and 73% (56%-85%) in culture confirmed cases; 46% (32%-60%) and 100% (63%-100%) for the final diagnosis; 32% (17%-51%) and 100% (54%-100%) in culture negative cases, respectively. Culture had a sensitivity of 32% (20%-47%) for the final diagnosis.
Conclusions: In sputum smear-negative and sputum-scarce patients with

clinico-radiological features of PTB Xpert® MTB/RIF has good sensitivity for diagnosis on BAL fluid. It is useful even when cultures are negative.

67: Goyal A, Ganie MA. Idiopathic Hyperprolactinemia Presenting as Polycystic Ovary Syndrome in Identical Twin Sisters: A Case Report and Literature Review. Cureus. 2018 Jul 19;10(7):e3004. doi: 10.7759/cureus.3004. PubMed PMID: 30250766; PubMed Central PMCID: PMC6145756.

This case report describes 15-year-old identical twin sisters, who presented to us with features of polycystic ovary syndrome (PCOS). A biochemical workup revealed hyperinsulinemia and androgen excess with elevated prolactin levels. The possible etiologies for hyperprolactinemia were excluded with a detailed evaluation and it was labeled as idiopathic. Considering the fact that androgen excess could be caused by either insulin resistance or hyperprolactinemia, we decided to treat one sister with insulin sensitizer metformin and other with dopamine agonist cabergoline. While cabergoline treatment resulted in normalization of prolactin levels and androgen excess, no significant biochemical or clinical improvement occurred with metformin treatment. Hyperprolactinemia was therefore considered to be the cause of androgen excess in both and cabergoline therapy initiated in the other sister as well. Through the report, we conclude that diagnosis of PCOS should be made only after exclusion of alternative causes like hyperprolactinemia and detailed evaluation should be sought for any significant, unexplained prolactin elevation. Although rare, hyperprolactinemia can lead to androgen excess by increasing adrenal androgen secretion, which improves with dopamine agonist therapy.

68: Guda NM, Muddana V, Whitcomb DC, Levy P, Garg P, Cote G, Uc A, Varadarajulu S, Vege SS, Chari ST, Forsmark CE, Yadav D, Reddy DN, Tenner S, Johnson CD, Akisik F, Saluja AK, Lerch MM, Mallery JS, Freeman ML. Recurrent Acute Pancreatitis: International State-of-the-Science Conference With Recommendations. Pancreas. 2018 Jul;47(6):653-666. doi: 10.1097/MPA.0000000000001053. PubMed PMID: 29894415.
Recurrent acute pancreatitis (RAP) is a clinically significant problem globally. The etiology remains unclear in approximately 10% to 15% of patients despite a thorough workup. Data on natural history and efficacy of treatments are limited. We aimed to establish criteria for diagnosis, evaluate the causative factors, and arrive at a consensus on the appropriate workup and management of patients with RAP. The organizing committee was formed, and a set of questions was developed based on the current evidence, controversies, and topics that needed further research. After a vetting process, these topics were assigned to a group of experts from around the world with special interest in RAP. Data were presented as part of a workshop on RAP organized as a part of the annual meeting of the America Pancreatic Association. Pretest and Posttest questions were administered, and the responses were tabulated by the current Grades of Recommendation Assessment, Development and Evaluation system. The consensus guidelines were established in the format of a diagnostic algorithm. Several deficiencies were identified with respect to data on etiology, treatment efficacies, and areas that need immediate research.

69: Guha S, Harikrishnan S, Ray S, Sethi R, Ramakrishnan S, Banerjee S, Bahl VK, Goswami KC, Banerjee AK, Shanmugasundaram S, Kerkar PG, Seth S, Yadav R, Kapoor A, Mahajan AU, Mohanan PP, Mishra S, Deb PK, Narasimhan C, Pancholia AK, Sinha A, Pradhan A, Alagesan R, Roy A, Vora A, Saxena A, Dasbiswas A, Srinivas BC, Chattopadhyay BP, Singh BP, Balachandar J, Balakrishnan KR, Pinto B, Manjunath CN, Lanjewar CP, Jain D, Sarma D, Paul GJ, Zachariah GA, Chopra HK, Vijayalakshmi IB, Tharakan JA, Dalal JJ, Sawhney JPS, Saha J, Christopher J, Talwar KK, Chandra KS, Venugopal K, Ganguly K, Hiremath MS, Hot M, Das MK, Bardolui N, Deshpande NV, Yadava OP, Bhardwaj P, Vishwakarma P, Rajput RK, Gupta R, Somasundaram S, Routray SN, Iyengar SS, Sanjay G, Tewari S, G S, Kumar S, Mookerjee S, Nair T, Mishra T, Samal UC, Kaul U, Chopra VK, Narain VS, Raj V, Lokhandwala Y. CSI position statement on management of heart failure in India. Indian Heart J. 2018 Jul;70 Suppl 1:S1-S72. doi: 10.1016/j.ihj.2018.05.003. Epub 2018 Jun 8. Review. Erratum

in: Indian Heart J. 2018 Nov - Dec;70(6):952-953. PubMed PMID: 30122238; PubMed Central PMCID: PMC6097178.

70: Guleria P, Mallick SR, Ramteke P, Jain D. Cytomorphological clues for a correct diagnosis of anaplastic lymphoma kinase-positive large B-cell lymphoma. Cytopathology. 2018 Jul 14. doi: 10.1111/cyt.12614. [Epub ahead of print] PubMed PMID: 30007099.

71: Gupta A, Dhua A, Agarwala S, Bhatnagar V. Pelviureteric Junction Obstruction with Crossing Lower Polar Vessel: Indicators of Preoperative Diagnosis. J Indian Assoc Pediatr Surg. 2018 Jul-Sep;23(3):123-126. doi: 10.4103/jiaps.JIAPS_207_17. PubMed PMID: 30050259; PubMed Central PMCID: PMC6042171.

Introduction: A crossing lower polar vessel (CLPV) is found in 11%-20% of children of pelviureteric junction obstruction (PUJO). Preoperative imaging (Doppler or magnetic resonance angiography (MRA)) may help but does not form a part of routine diagnostic workup. An attempt has been made here to evaluate clinical and imaging features (ultrasound and renal dynamic scan [RDS]) in children of PUJO with CLPV and define variables that could provide a diagnostic clue to its presence.
Materials and Methods: Records of children having PUJO with CLPV over 10 years (2006-2015) were reviewed retrospectively. Their demographic profile, clinical presentation, imaging features, management, and outcomes were evaluated.
Results: Of 372 children with PUJO, 21 (5.6%) had a CLPV. Median age at presentation was 7 years (range 4 months-11 years). Presenting features included pain (66.6%), urinary tract infection (14.3%), antenatally diagnosed fetal hydronephrosis (14.3%) and lump (4.8%). All had an obstructive drainage on RDS and mean split renal function (SRF) of the affected kidney was 32.5% ± 15.65%. The majority had mild-moderate hydronephrosis with intrarenal pelvis. None of the ultrasound images suggested the presence of a CLPV. Diagnosis of a CLPV was made intraoperatively in all. Dismembered pyeloplasty anterior to the vessel was done in the majority (80.9%). Mean SRF on postoperative RDS improved to 36.6% ±17.76% with nonobstructive drainage. All were asymptomatic at a mean follow-up of 34.5 ± 17.5 months (range 2-56 months).
Conclusions: Pain is the predominant presenting feature in these patients who present at an older age. Despite older age at presentation, these patients have well-preserved renal function and mild hydronephrosis. No specific RDS or ultrasound findings can predict the presence of a CLPV. As the incidence of CLPV is <10% and management is essentially same as PUJO with intrinsic obstruction, preoperative Doppler or MRA are extraneous.

72: Gupta D. A memory indelibly etched in mind: Dr Sanjiv Bhatia (February 22, 1958 - May 24, 2018). Neurol India. 2018 Jul-Aug;66(4):1227-1229. doi: 10.4103/0028-3886.236981. PubMed PMID: 30038139.

73: Gupta H, Ghasi RG, Kataria H, Jain V, Shankar V, Daripa RK, Upadhyay AD. Popliteal neurovascular bundle is safe during inside-out repair of medial meniscus without a safety incision. Knee Surg Sports Traumatol Arthrosc. 2018 Jul 17. doi: 10.1007/s00167-018-5060-x. [Epub ahead of print] PubMed PMID: 30019073.

PURPOSE: There is a theoretical risk of injury to neurovascular structures during inside-out meniscal repair without a safety incision, although there are limited studies assessing this risk. This simulation study on archival MRI films was performed to assess the risk for the popliteal neurovascular bundle and the peroneal nerve during passage of needles for inside-out meniscus repair without a "safety incision", thereby defining a "safe zone" of the menisci that can be safely repaired using this technique.
METHODS: Archival MRI scans (n = 50) were retrieved and axial sections through the menisci were used for simulation. The needle passage was simulated for different points on the posterior horn and body of lateral and medial menisci at "half-hour" intervals using clock method (15° intervals) with three different portals and two different needle cannulas, resulting in six different scenarios

of needle passage for each point on the meniscus. The distance of the needle in each scenario was measured from popliteal vessels (n = 50) and peroneal nerve (n = 10). The value "mean-3SD" was calculated for positive means and "Mean + 3SD" was calculated if the mean was negative. An additional 2 mm was defined as "safe distance". Thus, simulation models in which the mean - 3SD was less than 2 mm (or mean + 3SD was greater than - 2 mm for negative means) were labelled as "unsafe".
RESULTS: Needle passage through medial meniscus at and medial to 1 o'clock position for a right knee (or 11 o'clock position for a left knee) was safe, irrespective of the portal and needle type. For the lateral meniscus, only the equatorial region was found to be safe with this method.
CONCLUSIONS: The popliteal neurovascular bundle is safe during the inside-out medial meniscal repair without a safety incision. For the terminal-most part of the posterior horn, the AM portal and the straight cannula should be avoided. However, this method without safety incision cannot be recommended for lateral meniscus because of the risk to the popliteal vessels and the peroneal nerve. Instead, the inside-out method with a safety incision, or an all-inside method should be used for lateral meniscus.
LEVEL OF EVIDENCE: III.

74: Gupta L, Khandelwal D, Dutta D, Kalra S, Lal PR, Gupta Y. The Twin White Herrings: Salt and Sugar. Indian J Endocrinol Metab. 2018 Jul-Aug;22(4):542-551. doi: 10.4103/ijem.IJEM_117_18. Review. PubMed PMID: 30148105; PubMed Central PMCID: PMC6085961.

India has the dubious distinction of being a hotspot for both diabetes and hypertension. Increased salt and sugar consumption is believed to fuel these two epidemics. This review is an in-depth analysis of current medical literature on salt and sugar being the two white troublemakers of modern society. The PubMed, Medline, and Embase search for articles published in January 2018, using the terms "salt" [MeSH Terms] OR "sodium chloride" [All Fields] OR "sugar" [All Fields]. India is world's highest consumer of sugar with one of the highest salt consumption per day. Increased salt intake is associated with increased risk of hypertension, left ventricular hypertrophy and fibrosis, cardiovascular events, renal stones, proteinuria, and renal failure. Increased sugar intake is directly linked to increased risk of obesity, fatty liver disease, and metabolic syndrome. Also, increased sugar intake may be indirectly related to the increased risk of type 2 diabetes. Both salt and sugar intake is directly linked to increased systemic and hypothalamic inflammation, endothelial dysfunction, microangiopathy, cardiovascular remodelling, cancers, and death. High fructose corn is especially damaging. There is no safe limit of sugar consumption, as the human body can produce its own glucose. Being nature's gift to mankind, there is no harm in moderate consumption of salt and sugar, however, modest reduction in the consumption of both can substantially reduce the burden of non-communicable diseases. Public health interventions to facilitate this behavioural change must be instituted and encouraged.

75: Gupta N, Jorwal P. Treatment Outcomes Associated with Multidrug-resistant Tuberculosis. J Glob Infect Dis. 2018 Jul-Sep;10(3):125-128. doi: 10.4103/jgid.jgid_96_17. PubMed PMID: 30166810; PubMed Central PMCID: PMC6100341.

Background: Developing countries like India are heavily burdened with multidrug resistant tuberculosis (MDR-TB).
Materials and Methods: A retrospective study was carried out at the directly observed treatment short course chemotherapy plus site in our tertiary care center (All India Institute of Medical Sciences, New Delhi) where records of all patients enrolled between 2009 and 2013 were reviewed. The aim of this study was to calculate the frequency of predefined outcomes in these patients receiving standardized treatment for MDR-TB.
Results: Out of a total of 819 patients, the frequency of outcomes in these patients was as follows: Cured (n = 415, 52%), default (n = 199, 24%), death (n = 130, 16%), switched to category V (n = 27, 3%), transferred out (n = 12, 1%), treatment failure (n = 13, 1%), and treatment completed (n = 23, 3%).

Conclusion: The modest cure rate in concordance with other Indian studies highlights the need for continuing efforts to fight the menace of MDR-TB.

76: Gupta N, Mittal A, Kutty SV, Kumar A, Wig N. Technical and Alarm signs for referral in adult patients with acute febrile illness: A study from a tertiary care hospital in North India. J Family Med Prim Care. 2018 Jul-Aug;7(4):832-835. doi: 10.4103/jfmpc.jfmpc_138_18. PubMed PMID: 30234063; PubMed Central PMCID: PMC6132017.

Context: There is a huge burden of patients with acute febrile illness (AFI) during the post-monsoon season in India. It is very important to have a functioning triage system, whereby patients with high likelihood of developing a severe illness are referred to higher levels of care.
Aim: The objective of this study was to identify the alarm signs which would help in triaging of those patients with AFI without any specific diagnosis.
Methods: This was a retrospective review of records, whereby clinical and laboratory parameters of patients with AFI admitted in our tertiary care center between July 2016 and October 2016 were reviewed.
Statistical Analysis Used: Appropriate tests of significance were applied using SPSS 21(Chicago, IL, USA) to find statistically significant differences between those who required mechanical ventilation, intensive care, ionotropic support, or higher intravenous antibiotics and those who recovered with minimal supportive care.
Results: Presence of comorbidities, dyspnea, altered sensorium, features of myocarditis, hypotension, leukocytosis (>11,000/μL), and acute kidney injury were significantly associated with requirement of higher levels of care, while presence of arthralgia, serositis, and leucopenia indicated a higher likelihood of recovery with minimal support.
Conclusion: This article highlights the possibility of identification of simple alarm signs in patients with AFI which would indicate the need for higher levels of care.

77: Gupta R, Kaur G, Kumar L, Rani L, Mathur N, Sharma A, Dahiya M, Shekhar V, Khan S, Mookerjee A, Sharma OD. Nucleic acid based risk assessment and staging for clinical practice in multiple myeloma. Ann Hematol. 2018 Dec;97(12):2447-2454. doi: 10.1007/s00277-018-3457-8. Epub 2018 Jul 28. PubMed PMID: 30056581.

The recently introduced Revised International Staging System (R-ISS) for multiple myeloma (MM) integrates albumin, β2 microglobulin, lactate dehydrogenase (LDH) with high-risk cytogenetic aberrations (CA), i.e., t(4;14) and t(14;16) and del17p using fluorescent in situ hybridization (FISH). We evaluated utility of nucleic acid-based tests of multiplex ligation-based probe amplification (MLPA) and quantitative real-time polymerase chain reaction (qRT-PCR) to define the CA and the R-ISS categories as per this approach were evaluated for their ability to predict outcome in terms of response, progression-free (PFS), and overall survival (OS). In this study (n = 180), 17 (9.4%), 118 (65.6%), and 45 (25%) patients were assigned to R-ISS1, R-ISS2, and R-ISS3 categories with statistically significant differences in median PFS ($p = 0.02$) and OS ($p < 0.001$).On univariate analysis, serum creatinine, LDH, 17p deletion, chromosome 1q gain, and response after first induction therapy were associated with statistically significant differences ($p < 0.05$) in PFS and in addition, age > 65 years and use of triplet therapy with OS. On multivariate analysis, only serum creatinine, LDH, and response after first induction therapy retained significance for predicting PFS and in addition, use of triplet therapy retained significance for the OS. The proposed nucleic acid-based algorithm using qRT-PCR and MLPA for R-ISS is resource-effective in terms of small quantities of sample required; feasibility of batch processing and reduced overall cost for the total number of regions evaluated and retained the prognostic significance of R-ISS, making it suitable for clinical practice for molecular characterization of MM.

78: Gupta S, Rawat S, Arora V, Kottarath SK, Dinda AK, Vaishnav PK, Nayak B,

Mohanty S. An improvised one-step sucrose cushion ultracentrifugation method for exosome isolation from culture supernatants of mesenchymal stem cells. Stem Cell Res Ther. 2018 Jul 4;9(1):180. doi: 10.1186/s13287-018-0923-0. PubMed PMID: 29973270; PubMed Central PMCID: PMC6033286.

BACKGROUND: Exosomes are nanovesicles (30-120 nm) of endosomal origin. These exosomes contain various functional proteins and RNAs that could be used for therapeutic purposes. Currently, having a standard method for exosome isolation retaining its biological properties with increased yield and purity is a major challenge. The most commonly used method is differential ultracentrifugation but it has its own disadvantages, which include high time consumption, low yield due to disruption of exosome integrity, and high protein contaminants. In this study, we have identified an improved method addressing these problems for exosome isolation using ultracentrifugation since it is cost-effective and used worldwide.
METHOD: We have compared differential ultracentrifugation with the modified method called one-step sucrose cushion ultracentrifugation for exosome isolation. The conditioned serum-free media from human mesenchymal stem cells cultured for 48 h was collected for exosome isolation. The cellular debris was removed by centrifugation at 300g for 10 min, followed by centrifugation at 10,000g for 30 min to remove microvesicles. Equal volumes of pre-processed conditioned media were used for exosome isolation by direct ultracentrifugation and one-step sucrose cushion ultracentrifugation. The exosomes isolated using these methods were characterized for their size, morphology, concentration, and surface marker protein expression.
RESULT: It was observed that the recovery of exosomes with cup-shaped morphology from one-step sucrose cushion ultracentrifugation was comparatively high as estimated by nanoparticle tracking analysis and electron microscopy. These results were confirmed by Western blotting and flow cytometry.
CONCLUSION: We conclude that this one-step sucrose cushion ultracentrifugation method provides an effective and reproducible potential standard method which could be used for various starting materials for isolating exosomes. We believe that this method will have a wide application in the field of extracellular vesicle research where exosome isolation with high yield and purity is an imperative step. Schematic representation of comparison of UC and SUC exosome isolation methods for tissue-specific human mesenchymal stem cells. The SUC isolation method yields a greater number of cup-shaped exosomes with a relatively homogenous population for mass-scale production of exosomes for downstream analysis.
ABBREVIATIONS: SUC One-step sucrose cushion ultracentrifugation, UC Direct ultracentrifugation.

79: Gupta S, Upadhayay D, Sharma U, Jagannathan NR, Gupta YK. Citalopram attenuated neurobehavioral, biochemical, and metabolic alterations in transient middle cerebral artery occlusion model of stroke in male Wistar rats. J Neurosci Res. 2018 Jul;96(7):1277-1293. doi: 10.1002/jnr.24226. Epub 2018 Apr 15. PubMed PMID: 29656429.

Oxidative stress and inflammation are implicated as cardinal mechanisms of neuronal death following stroke. In the present study citalopram (Cit) was investigated in a 2 h middle cerebral artery occlusion (MCAo) model of stroke in male Wistar rats. Pretreatment, posttreatment (Post Cit) and pre plus posttreatment (Pre + Post Cit) with Cit were evaluated for its neuroprotective effect. In pretreatment protocol, effect of Cit at three doses (2, 4, and 8 mg/kg) administered i.p., 1 h prior to MCAo was evaluated using neurological deficit score (NDS), motor deficit paradigms, and cerebral infarction 24 h post-MCAo. In posttreatment and pre plus posttreatment protocol, the effective dose of Cit (4 mg/kg) was administered i.p., 0.5 h post-reperfusion (Post Cit) only, and 1 h prior to MCAo and again at 0.5 h post-reperfusion (Pre + Post Cit), respectively. These two groups were assessed for NDS and cerebral infarction. Though NDS was significantly reduced in both Post Cit and Pre + Post Cit groups, significant reduction in cerebral infarction was evident only in Pre + Post Cit

group. Infarct volume assessed by magnetic resonance imaging was significantly attenuated in Pre+Post Cit group (10.6±1.1%) compared to MCAo control group (18.5±3.0%). Further, Pre+Post Cit treatment significantly altered 17 metabolites along with attenuation of malondialdehyde, reduced glutathione, matrix metalloproteinases, and apoptotic markers as compared to MCAo control. These results support the neuroprotective effect of Cit, mediated through amelioration of oxidative stress, inflammation, apoptosis, and altered metabolic profile.

80: Gupta S, Rout G, Patel AH, Mahanta M, Kalra N, Sahu P, Sethia R, Agarwal A, Ranjan G, Kedia S, Acharya SK, Nayak B, Shalimar. Efficacy of generic oral directly acting agents in patients with hepatitis C virus infection. J Viral Hepat. 2018 Jul;25(7):771-778. doi: 10.1111/jvh.12870. Epub 2018 Mar 22. PubMed PMID: 29377464.

Novel direct-acting antivirals (DAAs) are now the standard of care for the management of hepatitis C virus (HCV) infection. Branded DAAs are associated with high sustained virological response at 12 weeks post-completion of therapy (SVR12), but are costly. We aimed to assess the efficacy of generic oral DAAs in a real-life clinical scenario. Consecutive patients with known HCV infection who were treated with generic-oral DAA regimens (May 2015 to January 2017) were included. Demographic details, prior therapy and SVR12 were documented. Four hundred and ninety patients (mean age: 38.9 ± 12.7 years) were treated with generic DAAs in the study time period. Their clinical presentations included chronic hepatitis (CHC) in 339 (69.2%) of cases, compensated cirrhosis in 120 (24.48%) cases and decompensated cirrhosis in 31 (6.32%) cases. Genotype 3 was most common (n = 372, 75.9%) followed by genotype 1 (n = 97, 19.8%). Treatment naïve and treatment-experienced (defined as having previous treatment with peginterferon and ribavirin) were 432 (88.2%) and 58 (11.8%), respectively. Generic DAA treatment regimens included sofosbuvir in combination with ribavirin (n = 175), daclatasvir alone (n = 149), ribavirin and peginterferon (n = 80), ledipasvir alone (n = 43), daclatasvir and ribavirin (n = 37), and ledipasvir and ribavirin (n = 6). Overall SVR12 was 95.9% (470/490) for all treatment regimens. SVR12 for treatment naïve and experienced patients was 97.0% (419/432) and 87.9% (51/58), respectively, P = .005. High SVR12 was observed with various regimens, irrespective of genotype and underlying liver disease status. There were no differences in SVR12 with 12 or 24 weeks therapy. No major adverse event occurred requiring treatment stoppage. Generic oral DAAs are associated with high SVR rates in patients with HCV infection in a real-life clinical scenario.

81: Gupta V, Sharma VK. Ashy dermatosis, lichen planus pigmentosus and pigmented cosmetic dermatitis: Are we splitting the hair? Indian J Dermatol Venereol Leprol. 2018 Jul-Aug;84(4):470-474. doi: 10.4103/ijdvl.IJDVL_549_17. PubMed PMID: 29667610.

82: Gutman T, Hanson CS, Bernays S, Craig JC, Sinha A, Dart A, Eddy AA, Gipson DS, Bockenhauer D, Yap HK, Groothoff J, Zappitelli M, Webb NJA, Alexander SI, Goldstein SL, Furth S, Samuel S, Blydt-Hansen T, Dionne J, Michael M, Wenderfer SE, Winkelmayer WC, Currier H, McTaggart S, Walker A, Ralph AF, Ju A, James LJ, Carter S, Tong A. Child and Parental Perspectives on Communication and Decision Making in Pediatric CKD: A Focus Group Study. Am J Kidney Dis. 2018 Oct;72(4):547-559. doi: 10.1053/j.ajkd.2018.05.005. Epub 2018 Jul 3. PubMed PMID: 29980375.

BACKGROUND & OBJECTIVES: Effective communication and shared decision making improve quality of care and patient outcomes but can be particularly challenging in pediatric chronic disease because children depend on their parents and clinicians to manage complex health care and developmental needs. We aimed to describe the perspectives of children with chronic kidney disease (CKD) and their parents with regard to communication and decision making.
STUDY DESIGN: Qualitative study.
SETTING & PARTICIPANTS: Children with CKD (n=34) and parents (n=62) from 6

centers across 6 cities in Australia, Canada, and the United States participated in 16 focus groups.
ANALYTICAL APPROACH: Transcripts were analyzed thematically.
RESULTS: We identified 4 themes: (1) disempowered by knowledge imbalance (unprepared and ill-informed, suspicion of censorship, and inadequacy as technicians), (2) recognizing own expertise (intuition and instinct unique to parental bond, emerging wisdom and confidence, identifying opportunities for control and inclusion, and empowering participation in children), (3) striving to assert own priorities (negotiating broader life impacts, choosing to defer decisional burden, overprotected and overruled, and struggling to voice own preferences), and (4) managing child's involvement (respecting child's expertise, attributing "risky" behaviors to rebellion, and protecting children from illness burden).
LIMITATIONS: Only English-speaking participants were recruited, which may limit the transferability of the findings. We collected data from child and parent perspectives; however, clinician perspectives may provide further understanding of the difficulties of communication and decision making in pediatrics.
CONCLUSIONS: Parents value partnership with clinicians and consider long-term and quality-of-life implications of their child's illness. Children with CKD want more involvement in treatment decision making but are limited by vulnerability, fear, and uncertainty. There is a need to support the child to better enable him or her to become a partner in decision making and prepare him or her for adulthood. Collaborative and informed decision making that addresses the priorities and concerns of both children and parents is needed.

83: Haldar P, Kant S, Yadav V, Majhi J, Malhotra S, Kaur R, Kumar R, Singh AK, Archana S, Lohia A, Rath R, Ahamed F. Effect of intravenous iron sucrose on hemoglobin level, when administered in a standard-dose, to anemic pregnant women in rural Northern India. J Family Med Prim Care. 2018 Jul-Aug;7(4):762-768. doi: 10.4103/jfmpc.jfmpc_303_17. PubMed PMID: 30234050; PubMed Central PMCID: PMC6132002.

Introduction: To combat anemia among pregnant women, in Haryana, Northern India, administration of intravenous iron sucrose (IVIS) was initiated in 2014 as a public-health measure. We assessed the effect of IVIS on hemoglobin (Hb) levels among the pregnant anemic women.
Methods: Pregnant women identified as moderately or severely anemic (Hb <10.0 g/dL) in the second or third trimester during routine antenatal care were prescribed IVIS in a standard-dose of 400 mg given as 100 mg on alternate days. Neither dose calculation, nor allowance for iron-store, was included in this study. We analyzed the data collected between June 2014 and December 2015, at the two primary-health-centers, on Hb level (by HemoCue method) before start of the therapy (baseline), and 4-week or more after the last infusion (endline).
Results: A total of 990 women received IVIS. Both baseline and endline Hg-levels were available for 763 (77%), who were included in the analysis. At baseline, the proportion of moderate and severe anemia was 87.94% and 12.06%, respectively. Mean (standard deviation)-Hb increased from 7.85 g/dL (0.80) at baseline, to 9.62 g/dL (1.30) at endline, with a mean increase of 1.76 g/dL (95% confidence interval 1.67, 1.85). The mean increase in Hb-level for pregnant women who had severe and moderate anemia at baseline was 2.54 g/dL and 1.65 g/dL, respectively. Overall, 15.33% of women achieved normal Hb-level by the time of endline measurement. No serious adverse reactions were reported during the observation period.
Conclusion: Mean increase in Hb-level was 1.76 mg/dL. Severely anemic pregnant women had larger increase in Hb-level when compared with pregnant women with moderate anemia.

84: Hari S, Paul SB, Vidyasagar R, Dhamija E, Adarsh AD, Thulkar S, Mathur S, Sreenivas V, Sharma S, Srivastava A, Seenu V, Prashad R. Breast mass characterization using shear wave elastography and ultrasound. Diagn Interv Imaging. 2018 Nov;99(11):699-707. doi: 10.1016/j.diii.2018.06.002. Epub 2018 Jul 10. PubMed PMID: 30006125.

PURPOSE: To evaluate the role of SWE in characterizing breast masses and ascertain whether additional use of SWE to ultrasound for evaluating BI-RADS 3 and 4a masses could help reduce long-term follow-up and unnecessary biopsies of these suspicious breast masses.
MATERIALS AND METHODS: This prospective, cross-sectional study was performed between June 2013 and November 2014. All enrolled patients underwent clinical breast examination, ultrasound, SWE and ultrasound-guided core biopsy of the breast mass. Breast Imaging Reporting and Data System (BI-RAD) categories were assigned to breast masses. For qualitative and quantitative variables of SWE, cut-off values for differentiation between benign and malignant breast masses were estimated. Modified BIRADS' (up/downgrading of BIRADS category) was done for BI-RADS 3/4a masses by combining individual SWE parameters and ultrasound findings. Sensitivity, specificity, positive and negative predictive value of modified BI-RADS' and ultrasound BI-RADS were compared.
RESULTS: A total of 119 women (mean age, 42.3±13.6 [SD] years; range: 13-87 years) with a single breast mass each were enrolled. Histopathologically, 57/119 (48%) breast masses were benign and 62 (52%) were malignant. On ultrasound, 42 breast masses were BI-RADS3 and 77 were BI-RADS 4 (4a, n=10; 4b, n=24; 4c, n=43) leading to 96.8% sensitivity and 70.2% specificity. On SWE, benign breast masses were oval/round, homogenous/reasonably homogenous, blue/green with lower elasticity values and malignant breast masses were irregular, inhomogeneous, red/orange with high elasticity values. On modified BI-RADS' using E-color and E-mean/E-max, specificity improved to 78.9% and 75.4% respectively.
CONCLUSION: Addition of SWE to ultrasound improves characterization of BI-RADS 3 and 4a masses. E-max, E-mean and E-color are the most useful SWE parameters to differentiate between malignant and benign breast masses.

85: Holloway KA, Kotwani A, Batmanabane G, Santoso B, Ratanawijitrasin S, Henry D. Promoting quality use of medicines in South-East Asia: reports from country situational analyses. BMC Health Serv Res. 2018 Jul 5;18(1):526. doi: 10.1186/s12913-018-3333-1. PubMed PMID: 29976180; PubMed Central PMCID: PMC6034320.

BACKGROUND: Irrational use of medicines is widespread in the South-East Asia Region (SEAR), where policy implementation to encourage quality use of medicines (QUM) is often low. The aim was to determine whether public-sector QUM is better in SEAR countries implementing essential medicines (EM) policies than in those not implementing them.
METHODS: Data on six QUM indicators and 25 EM policies were extracted from situational analysis reports of 20 country (2-week) visits made during 2010-2015. The average difference (as percent) for the QUM indicators between countries implementing versus not implementing specific policies was calculated. Policies associated with better (>1%) QUM were included in regression of a composite QUM score versus total number of policies implemented.
RESULTS: Twenty-two policies were associated with better (>1%) QUM. Twelve policies were associated with 3.6-9.5% significantly better use ($p<0.05$), namely: standard treatment guidelines; formulary; a government unit to promote QUM; continuing health worker education on prescribing by government; limiting over-the-counter (OTC) availability of systemic antibiotics; disallowing public-sector prescriber revenue from medicines sales; not charging fees at the point of care; monitoring advertisements of OTC medicines; public education on QUM; and a good drug supply system. There was significant correlation between the number of policies implemented out of 22 and the composite QUM score ($r=0.71$, $r2=0.50$, $p<0.05$).
CONCLUSIONS: Country situational analyses allowed rapid data collection that showed EM policies are associated with better QUM. SEAR countries should implement all such policies.

86: Jain D. Tru-cut/core Biopsy versus FNAC: Pulmonary Tumors. J Cytol. 2018 Jul-Sep;35(3):183-186. doi: 10.4103/JOC.JOC_73_18. PubMed PMID: 30089951; PubMed Central PMCID: PMC6060582.

Primary lung epithelial malignancies are the most common neoplasms among all pulmonary tumors. Lung cancer (LC) is the leading cause of cancer-related mortality for which a histologic or cytologic confirmation of malignancy is required before treatment. Specimen management is an important task for pathologists in the field of LC. Biopsy and fine needle aspiration are comparable. It is desirable to have both for diagnosis and mutation testing to maximize their use for patient care.

87: Jain D, Sukumar S, Mohan A, Iyer VK. Programmed death-ligand 1 immunoexpression in matched biopsy and liquid-based cytology samples of advanced stage non-small cell lung carcinomas. Cytopathology. 2018 Dec;29(6):550-557. doi: 10.1111/cyt.12605. Epub 2018 Jul 30. PubMed PMID: 29938855.

OBJECTIVE: Programmed death-ligand 1 (PD-L1) immunohistochemistry (IHC) is essential in patients of advanced non-small-cell lung cancer to determine eligibility for immunotherapy. PD-L1 IHC assays have been clinically validated only on formalin-fixed paraffin-embedded tissue; however, lung cancer is frequently diagnosed on cytology. PD-L1 immunocytochemistry (ICC) has shown high concordance of immunoexpression between cytology samples and paired small biopsies. Feasibility of liquid-based cytology (LBC) smears for PD-L1 ICC has not been analysed previously.
METHODS: PD-L1 ICC and IHC (clone SP263) were performed on paired LBC smears and small biopsies, respectively, in patients with advanced non-small-cell lung cancer. Cases with fewer than 100 viable tumour cells on LBC smear/biopsy were excluded from analysis. PD-L1 was interpreted positive when 25% or more tumour cells showed membranous and/or cytoplasmic protein expression of any intensity greater than background staining.
RESULTS: A total of 26 patients, harbouring adenocarcinomas (50%) and squamous cell carcinomas (50%), had available bronchial brushings/washings processed as LBC smears and concurrently obtained endobronchial biopsies. PD-L1 IHC was interpreted positive in 46% (12/26) biopsies. PD-L1 ICC was interpreted positive in 35% (9/26) LBC smears, all of which were IHC-positive. No IHC-negative case was positive on cytology. The overall concordance between LBC smears and small biopsies was 88.4%.
CONCLUSION: PD-L1 ICC can be performed on LBC processed smears, with certain challenges in interpretation inherent to LBC smears and their processing methods. Nevertheless, they represent a potential resource for ICC, especially when alternate histology material is not available. Future studies are required to validate the predictive value of PD-L1 ICC on LBC smears.

88: Jain S, Mahey R, Malhotra N, Kalaivani M, Sangeeta P, Bhatt A, Singh N, Kriplani A. Effect of Intrauterine Perfusion of Granulocyte Colony-stimulating Factor on Endometrial parameters and In Vitro Fertilization Outcome in Women Undergoing In Vitro Fertilization/Intracytoplasmic Sperm Injection Cycles: A Randomized Controlled Trial. J Hum Reprod Sci. 2018 Jul-Sep;11(3):254-260. doi: 10.4103/jhrs.JHRS_20_18. PubMed PMID: 30568355; PubMed Central PMCID: PMC6262668.

Context: Studies have found intrauterine perfusion of granulocyte colony-stimulating factor (G-CSF) to improve endometrial thickness and implantation rates in women undergoing in vitro fertilization (IVF).
Aims: To study the effect of intrauterine perfusion of G-CSF on endometrial parameters and IVF outcomes in patients undergoing fresh embryo transfers.
Settings and Design: This was a randomized double-blinded placebo-controlled trial conducted at assisted reproduction unit of a tertiary care center.
Subjects and Methods: One hundred and fifty patients undergoing IVF/intracytoplasmic sperm injection (ICSI) treatment and fresh embryo transfers were randomized to intervention and placebo groups. Patients in the intervention group received intrauterine perfusion of 300 μg (0.5 ml) of G-CSF on the day of ovulation trigger. Patients in placebo group received intrauterine perfusion of 0.5 ml normal saline on the day of ovulation trigger. The primary outcome measure was clinical pregnancy rate. The secondary outcome measures were change in

endometrial thickness, volume, and vascularity on the day of embryo transfer; biochemical pregnancy rate, implantation rate, ongoing pregnancy rate, and live birth rate. Statistical analysis was carried out using STATA 12.0 (StataCorp LP, College Station, Texas, USA).
Results: Endometrial vascularity in the intervention group was significantly higher on the day of embryo transfer compared to the placebo group. Clinical pregnancy rate was 27.6% in the intervention group compared to 18.9% in the placebo group and the difference was not statistically significant (P = 0.207). There was no statistically significant difference between biochemical pregnancy rate, implantation rate, ongoing pregnancy rate, live birth rate and endometrial parameters between the two groups.
Conclusions: Routine use of G-CSF in unselected IVF cycles may not lead to increase in positive IVF outcomes. More trials with larger sample sizes are required before approving or refuting the role of routine G-CSF in increasing IVF success rates. (CTRI/2017/10/010310).

89: Jain S, Gupta S, Kumar V. Ultra-widefield imaging in Coats'-type retinitis pigmentosa. Indian J Ophthalmol. 2018 Jul;66(7):997-998. doi: 10.4103/ijo.IJO_1109_17. PubMed PMID: 29941749; PubMed Central PMCID: PMC6032719.

90: Jain V, Chaturvedi A, Pandia MP, Bithal PK. Perioperative Course of Transsphenoidal Pituitary Surgery through Endoscopic versus Microscopic Approach: Interim Concerns for Neurosurgical Anesthesiology. J Neurosci Rural Pract. 2018 Jul-Sep;9(3):336-343. doi: 10.4103/jnrp.jnrp_22_18. PubMed PMID: 30069088; PubMed Central PMCID: PMC6050790.

Background: Endonasal endoscopic approach for transsphenoidal excision of pituitary adenoma has undergone remarkable evolution in the last two decades. It is considered less invasive and less stressful, with results comparable to the previous "gold standard" technique of microscopic transsphenoidal excision of pituitary adenoma. The aim of this study was to compare the various perioperative anesthetic and surgical factors which differ in the two approaches (endoscopic vs. microscopic) for pituitary adenoma excision, during the period when surgeons increasingly started using endoscope at our center.
Materials and Methods: Data of 307 patients from January 2011 to December 2013 were reviewed in this retrospective study. Various parameters were divided and compared on the basis of the type of approach for pituitary tumor resection vis-à-vis microscope-assisted sublabial transsphenoidal (MSLTS) resection or microscope-assisted transnasal transsphenoidal (MTNTS) resection or endoscope-assisted endonasal transsphenoidal (ETSS) resection.
Results: Demographic variables (except age); tumor type, dimensions, and invasiveness; patients' comorbidities; postoperative nausea/vomiting, electrolyte imbalance, respiratory, and cardiovascular problems were comparable among three groups. Duration of surgery and anesthesia were shortest for MTNTS group and longest for ETSS group (P < 0.001). Blood loss was higher in ETSS technique (median 300 mL) and least in MTNTS (median 100 mL), and the difference was significant across all three groups (P = 0.0003). Postoperative cerebrospinal fluid rhinorrhea was 17% in the MSLTS group compared to 6.5% in MTNTS and 7.9% in ETSS (P = 0.047).
Conclusion: ETSS with the expected advantage of being less invasive offers a better chance for complete resection of adenoma. Neuroanesthesiologist must be prepared for longer surgical time and more blood loss as compared to previous microscopic approach, at least till the surgeons expertise in this newer technique.

91: Joaquim AF, Tedeschi H, Chandra PS. Controversies in the surgical management of congenital craniocervical junction disorders - A critical review. Neurol India. 2018 Jul-Aug;66(4):1003-1015. doi: 10.4103/0028-3886.237025. Review. PubMed PMID: 30038084.

Introduction: Congenital disorders of the craniovertebral junction (CVJ) include a wide range of conditions, such as Chiari malformation (CM), basilar

Invagination (BI), and atlantoaxial dislocation (AAD). The objective of this paper is to critically review the literature related to the management of congenital CVJ disorders focusing on: the significant developments in the past (from anterior open ventral decompression to modern CVJ realignment); the diagnosis of CVJ instability; the role of atlantoaxial fixation without posterior fossa decompression in patients with tonsillar herniation and no evidence of CVJ instability; use of C1-2 inter-articular spacers and use of C1-2 interarticular spacers with intra-operative manipulations to correct BI with AAD along with its deformity.
Materials and Methods: We performed a review of articles showing up on PubMed database without time restriction. Articles were included according to the purpose of our review and selected by two authors (AFJ and PSC).
Results: CVJ instability may be inferred when there is atlantoaxial abnormal motion seen on dynamic studies, facet joint subluxation or severe symptomatic CVJ kyphosis; routine fixation of patients with CM without clear CCJ instability, while based on an interesting hypothesis, still requires further studies; use of C1-2 inter-articular spacers for re-establishing CVJ alignment is probably the most effective surgery for posterior CVJ realignment and reduction of AAD and BI, potentially avoiding the need for an open or endoscopic anterior odontoidectomy (AO); current development of deformity correcting surgeries and the measurement of joint indices to plan surgery have provided new strategies for treatment.
Conclusion: We present a critical review of important new concepts involved in the surgical treatment of CVJ congenital disease.

92: Jogdand R, Mooventhan A, Manjunath NK. Effect of mud pack to eyes on psychological variables in healthy volunteers: a pilot randomized controlled trial. J Complement Integr Med. 2018 Jul 18. pii: /j/jcim.ahead-of-print/jcim-2016-0085/jcim-2016-0085.xml. doi: 10.1515/jcim-2016-0085. [Epub ahead of print] PubMed PMID: 30020886.

Background Mud pack is one of the fundamental therapeutic procedures used in naturopathy to treat various diseases. There is a lack of scientific evidence for the use of mud-pack application in psychological variables. The present study aims at evaluating the effect of mud pack to eyes on psychological variables in healthy volunteers. Materials and methods Sixty healthy individuals with the age varied from 18 to 21 years were recruited and randomly divided into either mud-pack group (n=30) or wet-pack group (n=30). Mud-pack group received mud pack to eyes and wet-pack group received wet pack to eyes for a duration of 30 min/session (a total of 15 sessions). Psychological assessments like Mindful Attention Awareness Scale (MAAS), Perservative Thinking Questionnaire (PTQ) and Positive and Negative Affect Scale (PANAS) were taken before and after the intervention. Statistical analysis was performed using statistical package for the social sciences, version 16. Results Result of this study showed a significant reduction in PTQ score and PANAS negative score in both mud-pack and wet-pack groups. But, a significant increase in MAAS score was observed only in the mud-pack group, unlike wet-pack group. However, there was no significant difference found in between group analysis. Conclusions Result suggests that though both mud pack and wet pack to eyes reduced the scores of PTQ and negative affects, only mud pack to eyes increased the state of mindfulness in healthy individuals.

93: Jose A, Nagori SA, Chattopadhyay PK, Roychoudhury A. Greater Occipital Nerve Decompression for Occipital Neuralgia. J Craniofac Surg. 2018 Jul;29(5):e518-e521. doi: 10.1097/SCS.0000000000004549. PubMed PMID: 29762321.

The aim of the study was to evaluate the effectiveness of greater occipital nerve decompression for the management of occipital neuralgia. Eleven patients of medical refractory occipital neuralgia were enrolled in the study. Local anaesthetic blocks were used for confirming diagnosis. All of them underwent surgical decompression of greater occipital nerve at the level of semispinalis capitis and trapezial tunnel. A pre and postoperative questionnaire was used to compare the severity of pain and number of pain episodes/month. Mean pain

episodes reported by patients before surgery were 17.1±5.63 episodes per month. This reduced to 4.1±3.51 episodes per month (P<0.0036) postsurgery. The mean intensity of pain also reduced from a preoperative 7.18±1.33 to a postoperative of 1.73±1.95 (P<0.0033). Three patients reported complete elimination of pain after surgery while 6 patients reported significant relief of their symptoms. Only 2 patients failed to notice any significant improvement. The mean follow-up period was 12.45±1.29 months. Surgical decompression of greater occipital nerve is a simple and viable treatment modality for the management of occipital neuralgia.

94: Joshi M, Choudhary N, Kumar S, Bagaria D, Kumar A, Priyadarshini P. Diaphragmatic Herniation of Ruptured Right Lobe of Liver with Hypertrophied Left Lobe. Bull Emerg Trauma. 2018 Jul;6(3):267-268. doi: 10.29252/beat-060315. PubMed PMID: 30090826; PubMed Central PMCID: PMC6078480.

95: Kapil U, Khandelwal R, Ramakrishnan L, Khenduja P, Gupta A, Sareen N, Pandey RM, Sati HC, Belwal RS. Prevalence of metabolic syndrome and associated risk factors among geriatric population living in a high altitude region of rural Uttarakhand, India. J Family Med Prim Care. 2018 Jul-Aug;7(4):709-716. doi: 10.4103/jfmpc.jfmpc_261_17. PubMed PMID: 30234042; PubMed Central PMCID: PMC6131997.

Introduction: Metabolic syndrome (MetS) is responsible for 2.5-fold increase in cardiovascular mortality and a 5-fold higher risk of developing diabetes.
Materials and Methods: A community-based cross-sectional study was conducted during 2015-2016 in District Nainital. A list of all villages was developed. From this list, thirty villages were identified using population proportionate to size sampling method. From each village, thirty geriatric subjects (GSs) were selected. The study population included 979 GSs aged 60 years and above. The data were collected on anthropometry, blood pressure, blood glucose, and lipid profile from all the enrolled subjects. The prevalence of MetS was estimated using International Diabetes Federation criteria. Univariate and multivariate analysis was done to identify factors associated with MetS.
Results: The prevalence of MetS was found to be 28.6%. Step-wise multivariate logistic regression analysis found that female gender, higher income, and body mass index ≥25 were significant and independent risk factors of MetS amongst GP.
Conclusion: There is a need for screening of GP living in high altitude region so that efforts can be initiated to prevent complications of MetS.

96: Kapil U, Joshi S. Markers of Maternal and Neonatal Cobalamin Status and Risk Assessment of Neurodevelopmental Disorders in Infants. Indian J Pediatr. 2018 Jul;85(7):491-492. doi: 10.1007/s12098-018-2683-3. Epub 2018 May 3. Review. PubMed PMID: 29721671.

97: Karthikeyan G, Guilherme L. Acute rheumatic fever. Lancet. 2018 Jul 14;392(10142):161-174. doi: 10.1016/S0140-6736(18)30999-1. Epub 2018 Jun 29. Review. Erratum in: Lancet. 2018 Sep 8;392(10150):820. PubMed PMID: 30025809.
Acute rheumatic fever is caused by an autoimmune response to throat infection with Streptococcus pyogenes. Cardiac involvement during acute rheumatic fever can result in rheumatic heart disease, which can cause heart failure and premature mortality. Poverty and household overcrowding are associated with an increased prevalence of acute rheumatic fever and rheumatic heart disease, both of which remain a public health problem in many low-income countries. Control efforts are hampered by the scarcity of accurate data on disease burden, and effective approaches to diagnosis, prevention, and treatment. The diagnosis of acute rheumatic fever is entirely clinical, without any laboratory gold standard, and no treatments have been shown to reduce progression to rheumatic heart disease. Prevention mainly relies on the prompt recognition and treatment of streptococcal pharyngitis, and avoidance of recurrent infection using long-term antibiotics. But evidence for the effectiveness of either approach is not strong. High-quality research is urgently needed to guide efforts to reduce acute rheumatic fever incidence and prevent progression to rheumatic heart disease.

98: Kashyap S, Kumar U, Pandey AK, Kanjilal M, Chattopadhyay P, Yadav C, Thelma BK. Functional characterisation of ADP ribosylation factor-like protein 15 in rheumatoid arthritis synovial fibroblasts. Clin Exp Rheumatol. 2018 Jul-Aug;36(4):581-588. Epub 2018 Feb 14. PubMed PMID: 29465355.

OBJECTIVES: ARL15 is a novel susceptibility gene identified in a recent GWAS in a north Indian rheumatoid arthritis (RA) cohort. However, the role of ARL15 or ARF family genes in RA aetiology remains unknown. Therefore, we aimed to i) establish the expression of ARL15 in rheumatoid arthritis synovial fibroblasts (RASF) and ii) its functional characterisation by assessing its effects on major inflammatory cytokines and interacting partners using a knockdown approach.
METHODS: RASF were cultured from synovial tissue obtained from RA patients (n=5) and osteoarthritis (OA) patients (n=3) serving as controls. Expression of ARL15, ARF1 and ARF6 in RASF was checked by semi-quantitative PCR and western blots; and altered expression of ARL15, if any, by induction of RASF with TNF using real-time PCR. The effect of ARL15 on the expression of adiponectin, adiponectin receptor I, IL6 and GAPDH and on cell mobility by invasion and migration assays were assessed by siRNA mediated gene knockdown.
RESULTS: Expression of ARL15, ARF1 and ARF6 was confirmed in RASF and OASF samples but ARL15 expression remained unaltered on TNF induction. Notably, ARL15 knockdown resulted in downregulation of IL6 and GAPDH, upregulation of adiponectin and adiponectin receptor I genes; and significant reduction in migration and invasion of RASF. Genemania showed significant interactions of ARL15 with genes responsible for insulin resistance and phospholipase D.
CONCLUSIONS: This first report on ARL15 expression in RASF and its likely role in inflammation and metabolic syndromes through a TNF independent pathway, encourages hypothesis-free studies to identify additional pathways underlying RA disease biology.

99: Katiyar A, Singh H, Azad KK. Identification of Missing Carbon Fixation Enzymes as Potential Drug Targets in Mycobacterium Tuberculosis. J Integr Bioinform. 2018 Jul 3;15(3). pii: /j/jib.2018.15.issue-3/jib-2017-0041/jib-2017-0041.xml. doi: 10.1515/jib-2017-0041. PubMed PMID: 30218604; PubMed Central PMCID: PMC6340126.

Metabolic adaptation to the host environment has been recognized as an essential mechanism of pathogenicity and the growth of Mycobacterium tuberculosis (Mtb) in the lungs for decades. The Mtb uses CO2 as a source of carbon during the dormant or non-replicative state. However, there is a lack of biochemical knowledge of its metabolic networks. In this study, we investigated the CO2 fixation pathways (such as ko00710 and ko00720) most likely involved in the energy production and conversion of CO2 in Mtb. Extensive pathway evaluation of 23 completely sequenced strains of Mtb confirmed the existence of a complete list of genes encoding the relevant enzymes of the reductive tricarboxylic acid (rTCA) cycle. This provides the evidence that an rTCA cycle may function to fix CO2 in this bacterium. We also proposed that as CO2 is plentiful in the lungs, inhibition of CO2 fixation pathways (by targeting the relevant CO2 fixation enzymes) could be used in the expansion of new drugs against the dormant Mtb. In support of the suggested hypothesis, the CO2 fixation enzymes were confirmed as a potential drug target by analyzing a number of attributes necessary to be a good bacterial target.

100: Katwa U, Kabra SK. Advances in Management of Asthma. Indian J Pediatr. 2018 Sep;85(9):746-747. doi: 10.1007/s12098-018-2748-3. Epub 2018 Jul 28. PubMed PMID: 30056497.

101: Kaur M, Titiyal JS, Surve A, Falera R, Verma M. Effect of Lens Fragmentation Patterns on Phacoemulsification Parameters and Postoperative Inflammation in Femtosecond Laser-Assisted Cataract Surgery. Curr Eye Res. 2018 Oct;43(10):1228-1232. doi: 10.1080/02713683.2018.1485951. Epub 2018 Jul 6. PubMed PMID: 29874114.

PURPOSE: To evaluate intraoperative and postoperative outcomes with "chop" or "matrix" lens fragmentation patterns in femtosecond laser-assisted cataract surgery.
METHODS: Prospective comparative study of 66 eyes with grade III-IV nuclear sclerosis was conducted at an apex tertiary care ophthalmic center. Cases were randomly allocated to undergo femtosecond laser pretreatment using matrix pattern (group I; n = 33) or chop pattern (group II; n = 33) of lens fragmentation (LenSx laser platform), followed by phacoemulsification. The primary outcome measures were intraoperative phacoemulsification parameters and postoperative anterior chamber (AC) flare. Secondary outcome measures were intraoperative complications, postoperative central macular thickness, visual acuity, and endothelial cell counts. Follow-up was performed on postoperative day (POD) 1 and 30.
RESULTS: Phacoemulsification parameters including cumulative dissipated energy ($p = 0.008$), ultrasonic time ($p = 0.001$), aspiration time ($p < 0.001$), and total duration ($p = 0.001$) were significantly less in group I. The AC flare was 9.8 ± 4.6 in group I and 15.4 ± 6.0 in group II ($p < 0.001$) on POD 1, and the difference persisted at 1 month. A highly significant positive correlation was observed between the total duration of phacoemulsification and AC flare ($p < 0.001$). No case developed cystoid macular edema. The postoperative specular counts were significantly less in group II on POD 1 ($p = 0.036$) and POD 30 ($p = 0.02$). There was no difference in visual acuity between the two groups, and intraoperative complications were not observed in any case.
CONCLUSION: A decrease in phacoemulsification time and energy is observed after femtosecond laser pretreatment with the matrix pattern of lens fragmentation as compared to the chop pattern. The endothelial cell loss and postoperative inflammation is significantly less with the matrix pattern, and the inflammation correlates with the duration of phacoemulsification.

102: Khandpur S, Gupta V, Das D, Sharma A. Is there a correlation of serum and tissue T helper-1 and -2 cytokine profiles with psoriasis activity and severity? A cross-sectional study. Indian J Dermatol Venereol Leprol. 2018 Jul-Aug;84(4):414-418. doi: 10.4103/ijdvl.IJDVL_471_17. PubMed PMID: 29491194.

Background: Previous studies correlating Th1 and Th2 cytokine profiles with psoriasis activity provided inconsistent results. Correlation of tissue cytokine levels with psoriasis severity has not been studied till now.
Objective: To compare serum and tissue Th1 and Th2 cytokine profiles of patients with active and stable psoriasis as well as healthy controls, and to correlate them with psoriasis severity.
Methodology: This was a cross-sectional study involving adult patients with 'active' psoriasis (untreated progressive chronic plaque psoriasis, guttate psoriasis, and erythrodermic psoriasis), 'stable' psoriasis (stable plaque psoriasis or those with completely resolved lesions) and healthy subjects with non-inflammatory skin lesions as controls. Mean levels of Th1 and Th2 cytokines in serum [interleukin 2 (IL-2), interferon-gamma (IFN-γ), IL-4, IL-10] and tissue mRNA expression (IFN-γ, IL-4) were compared among these three groups.
Results: There were 30 patients each in active and stable psoriasis groups, and 15 in the control group. Mean serum IL-2, IFN-γ, and IL-10 levels of patients with psoriasis patients were significantly higher than the controls ($P < 0.001$ for both active and stable psoriasis), whereas mean serum IL-4 level of patients was significantly lower than the controls ($P < 0.001$). However, there was no statistically significant difference of serum cytokine levels between active and stable psoriasis groups. Mean quantitative tissue mRNA expression of IFN-γ and IL-4 of patients with active and stable psoriasis were significantly lower than the controls ($P < 0.001$ and <0.01, respectively), but were not significantly different between active and stable psoriasis groups. Serum and tissue cytokines showed weak correlation with psoriasis area and severity index.
Limitations: Small sample size and heterogenous nature of patients with psoriasis in terms of disease activity, morphology and treatment are limitations of this study.
Conclusions: There is no significant change in the serum or tissue levels of Th1 and Th2 cytokines with activity or severity of psoriasis.

103: Khanna K, Dhua AK, Bhatnagar V. Antenatally Diagnosed Surgical Conditions: Fetus As Our Patient. Indian J Pediatr. 2018 Dec;85(12):1101-1109. doi: 10.1007/s12098-018-2732-y. Epub 2018 Jul 3. Review. PubMed PMID: 29968133.

In today's era of improved antenatal care and screening modalities (3D high-resolution fetal ultrasound, fetal magnetic resonance imaging, fetal echocardiography, maternal serum markers and fetal blood sampling), an early diagnosis of surgical fetal abnormalities is routinely possible. A thorough knowledge about the incidence of such defects, the means of detection and evaluation, the scope of fetal intervention, postnatal management and long-term outcomes of common surgical conditions diagnosed antenatally is essential. This knowledge would not only help in proper patient care and management but also to ensure appropriate counselling of the expectant parents. This article highlights the fetal anomalies which are amenable to some form of fetal intervention from a pediatric surgical perspective as also those which can be treated after birth.

104: Khanna P, Pandey RK, Chandralekha C, Sharma A, Pangasa N. Comparison between Critical-Care Pain Observation Tool and physiologic indicators for pain assessment in the critically ill, mechanically ventilated adult patients. Saudi J Anaesth. 2018 Jul-Sep;12(3):384-388. doi: 10.4103/sja.SJA_642_17. PubMed PMID: 30100835; PubMed Central PMCID: PMC6044155.

Background and Objectives: Pain assessment of nonverbal, critically ill patients continues to present a challenge in Intensive Care Unit (ICU). The Critical-Care Pain Observation Tool (CPOT) rates critically ill patients' pain based on clinical observation. In the present study, the accuracy of CPOT was compared with physiological indicators of pain in mechanically ventilated, critically ill patients.
Methods: This quantitative prospective observational study was conducted to assess pain in the critically ill, mechanically ventilated patients in comparison to physiologic indicators such as blood pressure and heart rate. A repeated measures design was chosen, and a sample size of 180 was taken from 60 patients with sepsis, acute exacerbations of chronic obstructive pulmonary disease, community-acquired pneumonia, and postsurgical patients in the ICU. The two painful procedures chosen were tracheal suction and patient positioning. The data were collected at rest, at tracheal suctioning, 20 min later at positioning of the patient, and final reading 20 min later. Three testing periods, each including 4 assessments for a total of 12 pain assessments with sixty patients, were completed during each patient's ICU course. A total of six assessments were done with the patient at rest and three each with pain stimulus of tracheal suctioning and patient positioning.
Results: There was a significant increase in both hemodynamic variables (systolic blood pressure and diastolic blood pressure) during painful procedures except for the heart rate during positioning. The correlation between the CPOT and Ramsay scale was negative and significant.
Conclusions: The present study provides evidence that the CPOT has good psychometric properties. It might prove useful for pain assessment in uncommunicative critically ill patients.

105: Kinra P, Gahlot GPS, Yadav R, Baloda V, Makharia GK, Gupta SD, Das P. Histological assessment & use of immunohistochemical markers for detection of dysplasia in Barrett's esophageal mucosa. Pathol Res Pract. 2018 Jul;214(7):993-999. doi: 10.1016/j.prp.2018.05.006. Epub 2018 May 16. PubMed PMID: 29764708.

BACKGROUND: Histological assessment of dysplasia in Barrett's esophagus (BE) has high inter-observer variability. Hence, use of ancillary markers for early detection of dysplasia in BE is an important clinical question.
METHODS: In this retrospective study consecutive cases of BE (n = 59), over a period of 4 years were included. Hematoxylin and eosin stained sections were reviewed independently by 3 senior qualified pathologists, who graded the

dysplasia according to the Vienna Classification system and inter-observer agreement was analysed using the Kappa statistics. Subsequently Alpha-Methyl Acyl-CoA Racemase (AMACR), p53, CyclinD1, β-catenin, H2AX and M30 immunohistochemical (IHC) stains were examined on the following disease categories: BE with no dysplasia [NFD] (45), BE with indefinite for dysplasia (IFD) (4), low grade dysplasia (LGD) (3), high grade dysplasia (HGD) (2) and in adenocarcinomas (5). H score was calculated by adding up products of different grades of stain distribution and stain intensities (range of scores 0-300). RESULTS: Among the 3 pathologists, overall agreement was poor (k 0.06; 95% CI -0.089 to 0.145), with highest disagreement noted for differentiating the LGD and IFDs (k=0.21). After revising the histological criteria, the kappa improved to 0.53. Among the IHC stains performed, p53, β-catenin, H2AX and M30 stains were significantly useful to differentiate between IFD and LGD (P values: 0.04, 0.004, 0.05 & 0.04, respectively). AMACR and β-catenin stains though were up-regulated in HGD/adenocarcinomas than in other categories, their expression were not statistically different between the IFD and LGDs.
CONCLUSIONS: A detail histological scoring system may bring uniformity in histological interpretation of dysplasia in BE. Using a combined panel of IHC stains seems helpful in detection of dysplasia in BE, especially to differentiate the IFD and LGD changes in BE.

106: Kishor K, Sharma A, Singh K, Ranjan R, Pandey H, Kumar R, Kamal VK, Mishra P, Mahapatra M, Saxena R. Influence of tissue factor polymorphisms (603A>G and 5466A>G) on plasma tissue factor levels and their impact on deep vein thrombosis risk in young Indian population. J Thromb Thrombolysis. 2018 Jul;46(1):88-94. doi: 10.1007/s11239-018-1666-6. PubMed PMID: 29789989.

Deep vein thrombosis (DVT) is multifactorial disorder and well known to cause substantial morbidity and mortality. There is sparse data in the Asian population, particularly India regarding association of tissue factor (TF) gene single nucleotide polymorphisms (SNPs) with plasma TF levels in DVT. So, we analyzed the distribution of SNPs (603A>G and 5466A>G) in India, to evaluate their effect on TF levels in DVT patients. Plasma level and SNPs (603A>G and 5466A>G) of TF gene were screened in subjects (100 DVT patients and 100 controls). Patients had significantly higher TF levels than controls (patients: 84.95±17.16 pg/ml, controls: 70.55±15.87 pg/ml, p<0.001). G allele of 603A>G polymorphism was significantly higher in patients than controls (patients: 40.5% controls: 27.5%, p=0.004). Subjects with AG and GG genotype had significantly higher TF levels than AA genotype (p=0.001). After multiple logistic regression analysis, risk of DVT was increased 1.398 fold (95% CI 0.738-2.651) and 4.41 fold (95% CI 1.404-13.884) with AG and GG genotype respectively. Allelic and genotypic frequencies of 5466A>G polymorphism was neither associated with TF levels nor with DVT. We found high TF level in patients with TF 603A>G polymorphism, which is an important predisposing factor in increasing risk of DVT in young Indians. Furthermore, GG genotype of 603A>G polymorphism augments the risk of thrombosis by 4.4 fold, thus highlighting the significance of this polymorphism in the development of DVT. So, we suggest that inclusion of 603A>G polymorphism in prothrombotic work-up may be helpful in making the treatment strategy in DVT patients.

107: Krishna Gour SS, Agrawal M, Sawarkar D. Letter to the Editor. Altered intracranial venous physiology. J Neurosurg Pediatr. 2018 Oct;22(4):464-466. doi: 10.3171/2018.5.PEDS18288. Epub 2018 Jul 20. PubMed PMID: 30028272.

108: Krishnan A. Public health leadership in India: Reflections from my journey. Indian J Public Health. 2018 Jul-Sep;62(3):171-174. doi: 10.4103/ijph.IJPH_93_18. PubMed PMID: 30232964.

Public Health discipline has evolved and currently focuses on addressing social determinants of health and working multi-sectorally to promote health. Public Health Leadershipis the practice of mobilizing people, organizations, and communities to effectively tackle tough public health challenges. Leadership is a

core competency of public health.Leaders are people with Vision, Influence, Values and Passion to achieve personal and organizational mission.Leadership is not a personal trait but is learnable skill. Leadership is a journey where one goes from being a member of a single team to lead health sector in working with other sectors. A leader moves from carrying out assigned tasks at the beginning of journey to providing a vision to motivate others to achieve their life goals. A true leader grooms leaders to establish a legacy of leadership. Ten lessons from my life would be: Believe in yourself; Seize the opportunities; present a vision of future; get out of comfort zone; expand capacity rather than define limits; strengthen communication and people to people skills; build a team; consider everyone as a potential collaborator; focus on deliverables and on relationships. We should start Public Health leadership course and develop core modules for teaching of leadership to post graduates in all medical schools.

109: Krishnan S, Katiyar V, Phalak M, Sharma R. Streptococcus mutans with Collagen-Binding Protein: From Oral Cavity to Brain. World Neurosurg. 2018 Jul;115:486. doi: 10.1016/j.wneu.2018.03.156. PubMed PMID: 29958377.

110: Kuijpers T, Spencer FA, Siemieniuk RAC, Vandvik PO, Otto CM, Lytvyn L, Mir H, Jin AY, Manja V, Karthikeyan G, Hoendermis E, Martin J, Carballo S, O'Donnell M, Vartdal T, Baxter C, Patrick-Lake B, Scott J, Agoritsas T, Guyatt G. Patent foramen ovale closure, antiplatelet therapy or anticoagulation therapy alone for management of cryptogenic stroke? A clinical practice guideline. BMJ. 2018 Jul 25;362:k2515. doi: 10.1136/bmj.k2515. PubMed PMID: 30045912; PubMed Central PMCID: PMC6058599.

Conflict of interest statement: Competing interests: All authors have completed the BMJ Rapid Recommendations interests disclosure form, and a detailed description of all disclosures is reported in appendix 2 on bmj.com. No authors had relevant financial interests. They declared the following intellectual interests: Elke Hoendermis is co-author of national recommendations on PFO closure and stroke on behalf of the working group of the Netherlands Society of Cardiology. Fred Spencer has published systematic review and meta-analysis on this topic. No panel member had any other intellectual conflict to disclose. As with all BMJ Rapid Recommendations, the executive team and The BMJ judged that no panel member had any financial conflict of interest. Professional and academic interests are minimised as much as possible, while maintaining necessary expertise on the panel to make fully informed decisions.

111: Kumar L, Ganesan P. Induction therapy for multiple myeloma: more is not necessarily better! Br J Haematol. 2018 Jul;182(1):7-8. doi: 10.1111/bjh.15242. Epub 2018 Apr 20. PubMed PMID: 29676443.

112: Kumar R. What's inside? Indian J Urol. 2018 Jul-Sep;34(3):168-169. doi: 10.4103/iju.IJU_195_18. PubMed PMID: 30034124; PubMed Central PMCID: PMC6034418.

113: Kumar R. Editorial comment. Indian J Urol. 2018 Jul-Sep;34(3):166-167. doi: 10.4103/iju.IJU_191_18. PubMed PMID: 30034123; PubMed Central PMCID: PMC6034420.

114: Kumar R, Khan R, Gupta N, Seth T, Sharma A, Kalaivani M, Sharma A. Identifying the biomarker potential of telomerase activity and shelterin complex molecule, telomeric repeat binding factor 2 (TERF2), in multiple myeloma. Leuk Lymphoma. 2018 Jul;59(7):1677-1689. doi: 10.1080/10428194.2017.1387915. Epub 2017 Oct 18. PubMed PMID: 29043869.

Telomere length (TL) is maintained by telomere capping protein complex called shelterin complex. We studied the possible involvement and biomarker potential of shelterin complex molecules in naive multiple myeloma (MM) patients and controls. TL, relative telomerase activity (RTA), real-time PCR and Western blotting were performed in bonemarrow sample of 70 study subjects (patients=50; controls=20). Significantly lowered mean TL, increased RTA and higher mRNA expression of shelterin molecules were observed in patients, while PIN2/TERF1

interacting telomerase inhibitor 1 (PINX1) showed lower mRNA expression. Significantly increased protein expression of telomeric repeat binding factor 2 (TERF2), protection of telomeres 1, adrenocortical dysplasia homolog, Tankyrase 1 and telomere reverse transcriptase were observed in MM patients. Significant correlation was observed among genes and of genes with clinical parameters. In conclusion, our findings showed alteration of these molecules at mRNA and protein levels suggested their involvement in disease progression. Optimal sensitivity and specificity of TERF2 and RTA on receiver operating characteristics curve analysis and univariate analysis demonstrated their biomarkers potential in better prediction of disease course.

115: Kumar S, Singh MB, Kumar A, Shukla G, Padma Srivastava MV, Goyal V, V Y V. Are epilepsy patients bypassing primary care? A cross-sectional study from India. Seizure. 2018 Aug;60:149-154. doi: 10.1016/j.seizure.2018.07.001. Epub 2018 Jul 4. PubMed PMID: 29990708.

PURPOSE: Lack of epilepsy primary and secondary care and an arbitrary referral system causes many epilepsy patients to seek tertiary care even when they may not need it. This causes overcrowding, increased waiting times and also compromises the quality of tertiary care. We conducted this study to identify what proportion of epilepsy patients presenting to tertiary care actually needed it.
METHODS: To test appropriateness of candidacy for tertiary care, we formulated Modified NICE criteria (MNC) based on NICE criteria. Modified NICE criteria were used to dichotomize participants into two groups: a) those who needed tertiary care and b) those who did not need tertiary care. We also looked at agreement between MNC and original NICE criteria.
RESULTS: Four hundred and twenty two patients were recruited. According to the MNC, 240 patients (57%) qualified for tertiary care while 182 (43%) did not. The agreement between MNC and original NICE criteria was 86.7%, kappa 0.73(95% CI 0.66-0.79, $p < 0.001$). The most frequently cited reason for seeking tertiary care was 'Unsatisfactory response to treatment', although; many of these patients were actually non-adherent to treatment. Amongst variables that predicted non-eligibility for tertiary care, the most important was not having been referred.
CONCLUSION: Many epilepsy patients seeking tertiary care do not need it. Access and quality of epilepsy care can be improved if there is a rational and need-based distribution of patients between primary, secondary and tertiary care. Referral systems also need to be developed and used to transition patients from one level of care to another.

116: Kumar V, Gadkar A. Multimodal imaging of Bietti's crystalline dystrophy. Indian J Ophthalmol. 2018 Jul;66(7):1024-1026. doi: 10.4103/ijo.IJO_39_18. PubMed PMID: 29941763; PubMed Central PMCID: PMC6032734.

Bietti's crystalline dystrophy (BCD) is a rare autosomal recessive retinal dystrophy characterized by deposition of crystals in the retina. The purpose of this article is to describe retinal abnormalities in BCD using multimodal imaging. An 18-year-old girl presented with decrease of vision and nyctalopia. She was assessed with color fundus picture, red-free photographs, short-wave autofluorescence, spectral-domain optical coherence tomography (OCT) and en face OCT and was diagnosed to have BCD based on typical presentation. Retinal crystals were better visualized on en face OCT as compared to conventional B scan OCT.

117: Madaan P, Gulati S, Chakrabarty B, Sapra S, Sagar R, Mohammad A, Pandey RM, Tripathi M. Clinical spectrum of psychogenic non epileptic seizures in children; an observational study. Seizure. 2018 Jul;59:60-66. doi: 10.1016/j.seizure.2018.04.024. Epub 2018 Apr 27. PubMed PMID: 29754012.

PURPOSE: The current study was designed to analyze the clinical spectrum of Psychogenic non-epileptic seizures (PNES) in children.
METHODS: Children aged 6-16years with clinically suspected PNES, confirmed by short-term VEEG (STVEEG{video electroencephalogram}) and induction were

classified as per Seneviratne classification. Stressors, associated co morbidities, Verbal IQ (Intelligence Quotient) and behavioral abnormalities were assessed using HTP(House tree person) test, DSM IV (Diagnostic and statistical manual of mental disorders) TR criteria, MISIC (Malin intelligence scale for Indian children) and CBCL (Child behaviour checklist).
RESULTS: Eighty children with PNES {45 boys; mean age: 10.5 (±1.6) years} were enrolled. Median delay in diagnosis was 5 months {IQR(interquartile range)- 0.5 to 48 months}) and 45% patients were already on AEDs (antiepileptic drugs). Commonest semiology was dialeptic (42.5%), followed by mixed (28.8%), motor (15%) and nonepileptic aura (13.8%). Family stressors were the commonest followed by school related issues. The most common psychiatric comorbidity was adjustment disorder. Somatic complaints were observed in 50% children.
CONCLUSIONS: Dialeptic PNES is commonest in children. In resource constrained settings, STVEEG along with induction is a reliable method to diagnose PNES. A comprehensive assessment protocol (including assessment of stressors) is needed for holistic management of pediatric PNES.

118: Madhusudhan KS, Srivastava DN, Sharma S, Sharma S. Interventional Radiology in India. AJR Am J Roentgenol. 2018 Oct;211(4):730-735. doi: 10.2214/AJR.18.19777. Epub 2018 Jul 31. PubMed PMID: 30063369.

OBJECTIVE: The purpose of this article is to review the status of interventional radiology (IR) in India.
CONCLUSION: After a few initial challenges, the specialty of interventional radiology (IR) is well established in most cities in India, where various quality procedures are now regularly performed. The national IR society, the Indian Society of Vascular and Interventional Radiology, is still new, but its collaboration with other international societies will help its progress. Education and training in IR are fast evolving in India, and as more radiologists choose IR as their career, IR is bound to progress.

119: Madhusudhan KS, Vyas S, Sharma S, Srivastava DN, Gupta AK. Portal vein abnormalities: an imaging review. Clin Imaging. 2018 Nov - Dec;52:70-78. doi: 10.1016/j.clinimag.2018.07.002. Epub 2018 Jul 6. Review. PubMed PMID: 30005206.

The portal vein is the main vascular channel of the liver and is affected by many pathologies. Imaging plays an important role in the detection and characterization of these abnormalities, guiding the surgeon and the interventional radiologist in planning further management. We discuss the imaging appearances of various abnormalities affecting the portal vein and the imaging modalities used in their diagnosis. We also briefly discuss the radiological interventions done in some of these cases.

120: Mahal P, Nishanth KN, Mahapatra A, Sarkar S, Balhara YPS. Trihexyphenidyl Misuse in Delusional Disorder. J Neurosci Rural Pract. 2018 Jul-Sep;9(3):428-430. doi: 10.4103/jnrp.jnrp_569_17. PubMed PMID: 30069107; PubMed Central PMCID: PMC6050776.

Trihexyphenidyl is an anticholinergic medication that is routinely used for the management of extrapyramidal symptoms in patients who receive antipsychotic medications. Trihexyphenidyl has been reported to be abused by some patients, who start to take it in increasing doses and tend to report a sensation of relaxation or pleasure with this medication. Hence, whether trihexyphenidyl should be considered a psychoactive substance and whether nonprescription misuse of this medication should be considered under the purview of substance use disorders need further clarity. We present here two cases of trihexyphenidyl misuse which developed in the context of persistent delusional disorders and highlight the challenges in diagnosis in such a situation.

121: Malgulwar PB, Nambirajan A, Pathak P, Rajeshwari M, Suri V, Sarkar C, Singh M, Sharma MC. Epithelial-to-mesenchymal transition-related transcription factors are up-regulated in ependymomas and correlate with a poor prognosis. Hum Pathol.

2018 Dec;82:149-157. doi: 10.1016/j.humpath.2018.07.018. Epub 2018 Jul 29. PubMed PMID: 30067950.

Epithelial-to-mesenchymal transition (EMT) plays an important role in invasion and metastasis of various cancers including gliomas. EMT has also been linked to cancer stem cells and resistance to chemotherapy. An initial in-silico data mining in a published ependymoma (EPN) patient series (GSE21687) revealed up-regulation of EMT transcription factors in tumor samples. Furthermore, quantitative real-time polymerase chain reaction-based gene expression analysis of EMT transcription factors in 96 EPNs showed significant up-regulation of SNAI1, SNAI2, ZEB1, and TWIST1 as compared with normal brain, associated with up-regulation of CDH2/N-cadherin and down-regulation of CDH1/E-cadherin. Although this was observed in varying degrees in all clinicopathological-molecular subgroups of EPNs, it was most evident in supratentorial EPNs harboring fusions of RELA (v-rel avian reticuloendotheliosis viral oncogene homolog A) gene and in posterior fossa EPNs. Immunohistochemistry performed in 60 of the above cases corroborated with gene expression patterns, and immunopositivity for Snail, Slug, Zeb1, and Twist1 was observed in 80%, 80%, 81%, and 63% of all EPNs. Immunopositivity for N-cadherin and E-cadherin was observed in 76.6% and 2% of the cases, respectively. Univariate Cox regression analysis showed that low expression of CDH1/E-cadherin ($P = .002$) and high expression levels of CDH2/N-cadherin ($P < .001$), SNAI1/Snail ($P = .023$), SNAI2/Slug ($P < .001$), and ZEB1 ($P < .001$) were associated with shorter progression-free survival. Here, we report for the first time the existence of EMT-like phenotype in EPNs. These factors could represent new prognostic and therapeutic targets in EPN.

122: Malhotra S, Vashist P, Gupta N, Kalaivani M, Rath R, Gupta SK. Prevalence and causes of visual impairment among adults aged 15-49 years in a rural area of north India - A population-based study. Indian J Ophthalmol. 2018 Jul;66(7):951-956. doi: 10.4103/ijo.IJO_1333_17. PubMed PMID: 29941738; PubMed Central PMCID: PMC6032730.

Purpose: Very few studies have been conducted in India and other parts of the world on visual impairment among individuals aged 15-49 years. This study was conducted to determine the prevalence, causes, and associated factors of visual impairment among adults aged 15-49 years in a rural population of Jhajjar district, Haryana, north India.
Methods: A population-based cross-sectional study was conducted in two blocks of Jhajjar district. A total of 34 villages were selected using probability proportionate to size sampling method. Adults aged 15-49 years were selected using compact segment cluster sampling approach. As part of the house-to-house survey, presenting visual acuity using screening chart corresponding to five "E" 6/12 optotypes was measured along with collection of other demographic details. The optometrists performed detailed eye assessment including repeat measurement of visual acuity using retro-illuminated conventional logMAR tumbling "E" charts, torch light examination, and non-cycloplegic refraction at a clinic site within the village to ascertain visual impairment and its cause.
Results: Of 5,470 enumerated adults, 5,117 (94%) completed all study procedures. The age- and sex-adjusted prevalence of visual impairment was found to be 1.85% [95% confidence interval (CI): 1.48, 2.23] and blindness was 0.09% (95% CI: 0.01, 0.18). The age- and sex-adjusted prevalence of unilateral visual impairment was 1.11% (95% CI: 0.81, 1.41). Uncorrected refractive errors (84%) contributed maximum to visual impairment in this age group. The visual impairment in study participants was found to be associated with age and educational status.
Conclusion: At the community level, uncorrected refractive errors contribute largely to visual impairment in the age group of 15-49 years.

123: Mandula PP, Malik R, Khanna G. Protein Losing Enteropathy in Hennekam Syndrome. Indian J Pediatr. 2018 Jul;85(7):587-588. doi: 10.1007/s12098-017-2602-z. Epub 2018 Jan 12. PubMed PMID: 29327272.

124: Mathur P, Veeraraghavan B, Devanga Ragupathi NK, Inbanathan FY, Khurana S, Bhardwaj N, Kumar S, Sagar S, Gupta A. Multiple mutations in lipid-A modification pathway & novel fosA variants in colistin-resistant Klebsiella pneumoniae. Future Sci OA. 2018 Jul 4;4(7):FSO319. doi: 10.4155/fsoa-2018-0011. eCollection 2018 Jul. PubMed PMID: 30112189; PubMed Central PMCID: PMC6088269.

Aim: To investigate antimicrobial resistance mechanisms in a cluster of colistin-resistant Klebsiella pneumoniae.
Methods: Antimicrobial susceptibility was tested by disk diffusion and broth microdilution. Whole-genome sequencing and genome analysis were performed.
Results: The eight colistin-resistant K. pneumoniae isolates belonged to three different clones (ST11, 14 and 231). The eptA and arnT genes from lipid modification pathway had novel (R157S in arnT and Q319R in eptA) and rare mutations (V39L, R152H, S260L and A279G in eptA). Several substitutions were also identified in mgrB, pmrB, phoP and phoQ genes. The mcr genes were absent in all isolates. Isolates had variants from existing classes of fosA gene.
Conclusion: Complex combination of mutations might have led to colistin resistance, which suggests that continuous surveillance of molecular mechanisms is required.

125: Mawar S, Koul P, Das S, Gupta S. Association of Physical Problems and Depression with Elder Abuse in an Urban Community of North India. Indian J Community Med. 2018 Jul-Sep;43(3):165-169. doi: 10.4103/ijcm.IJCM_249_17. PubMed PMID: 30294081; PubMed Central PMCID: PMC6166498.

Context: Elder abuse is a serious problem that has adverse consequence on health. Still, research on elder abuse is sparse in India.
Aims: This study aimed to find the nature, prevalence, and factors such as depression and physical problems associated with elder abuse in an urban North Indian community.
Materials and Methods: A cross-sectional study was conducted with 222 elders with 97 males, aged 60 years or older residing in an urban community of Delhi. Elders were assessed for abuse by modified Vulnerability to Abuse Screening Scale questionnaire, Geriatric Depression Scale, and self-reported questions on health problems.
Results: Mean age of the study population was 66.3 ± 4.2 years. The overall prevalence of any type of elder abuse was 24.3%. Psychological abuse was the most common type (22.9%) followed by financial abuse (5.8%), physical abuse (1.4%), and anti-constitutional abuse (nil). Among the abused, nearly 20% experienced more than one type of abuse. Thirty-seven women (30%) and 17 men (18%) reported elder abuse. Low income (<Rs. 10,000/month), female gender, and visual and hearing problems were risk factors for elder abuse while socially active and good health were protective against abuse. Depression and alcohol consumption were associated with elder abuse.
Conclusion: Elder abuse is common in urban North India and is underreported. Appropriate interventions are required to ameliorate the problem.

126: Mazzeo AT, Gupta DK. Intraoperative visual evoked potential monitoring for a safer endoscopic transsphenoidal surgery. Neurol India. 2018 Jul-Aug;66(4):955-957. doi: 10.4103/0028-3886.236996. PubMed PMID: 30038077.

127: Meel R, Dhiman R. Proposal for a new classification for ocular surface squamous neoplasia. Eye (Lond). 2018 Jul;32(7):1284-1285. doi: 10.1038/s41433-018-0058-7. Epub 2018 Feb 21. PubMed PMID: 29463863; PubMed Central PMCID: PMC6043581.

128: Mishra RC, Mishra S. Olfactory groove meningiomas: The surgical approaches and factors influencing prognosis. Neurol India. 2018 Jul-Aug;66(4):964-966. doi: 10.4103/0028-3886.236997. PubMed PMID: 30038081.

129: Misra A, Chauhan S, Tanwar P, Singh S, Sharma S, Rai S. Real-Time

Compensation in Flow Cytometry: A Real Need of Time. Indian J Hematol Blood Transfus. 2018 Jul;34(3):585-588. doi: 10.1007/s12288-018-0914-4. Epub 2018 Jan 10. PubMed PMID: 30127585; PubMed Central PMCID: PMC6081326.

130: Mohan S, Jarhyan P, Ghosh S, Venkateshmurthy NS, Gupta R, Rana R, Malhotra C, Rao MB, Kalra S, Tandon N, Srinath Reddy K, Prabhakaran D. UDAY: A comprehensive diabetes and hypertension prevention and management program in India. BMJ Open. 2018 Jul 10;8(6):e015919. doi: 10.1136/bmjopen-2017-015919. PubMed PMID: 29991625; PubMed Central PMCID: PMC6082491.

INTRODUCTION: Diabetes and hypertension are two leading non-communicable conditions, which are suboptimally managed in India. Thus, innovative comprehensive approaches that can concomitantly improve their detection, prevention and control are warranted.
METHODS AND ANALYSIS: UDAY, a 5-year initiative, aims to reduce the risk of diabetes and hypertension and improve management by implementing a comprehensive intervention programme in the two selected study sites, Sonipat and Visakhapatnam (Vizag). It has a pre-post evaluation design with representative cross-sectional surveys before and after intervention. Within these two sites, urban and rural subsites each with a total population of approximately 100 000 people each were selected and a baseline and postintervention assessment was conducted deploying five surveys [among general population (including body measurements or biosamples), patients, healthcare providers including physicians and pharmacists, health facilities], which will determine the knowledge levels about diabetes and hypertension, the proportion treated and controlled; the patient knowledge and self-management skills; healthcare providers' management practices; the level of access and barriers to obtaining care.The interventions will include: tailored health promotion for improving public knowledge; screening of adults aged ≥ 30 years for identifying those at high risk of diabetes and/or hypertension for linkage to the healthcare system; patient education using technology enabled community health workers, geographic information system (GIS) based mapping of the communities, healthcare provider training on management guidelines, community based diabetes registry and; advocacy to improve access to healthcare. The baseline surveys have been completed, the study areas mapped using GIS and the interventions are being implemented. UDAY is expected to increase over baseline the levels of: public knowledge about diabetes and hypertension; those treated and controlled; patient self-management skills; the use of guideline based management by providers and; access to healthcare, leading to improved health outcomes and inform development of a India relevant chronic care model.
ETHICS AND DISSEMINATION: Ethical clearance for conduct of the study was obtained from the Institutional Ethics Committee (IEC) of the Public Health Foundation of India. The findings will be targeted primarily at public health policymakers and advocates, but will be disseminated widely through other mechanisms including conference presentations and peer-reviewed publications, as well as to the participating communities.

131: Moscote-Salazar LR, Satyarthee GD, Matus JA, Maraby J, Calderon Miranda WG. Conservative Management of Chronic Subdural Hematoma with Tranexamic Acid. Asian J Neurosurg. 2018 Jul-Sep;13(3):951-952. doi: 10.4103/ajns.AJNS_298_16. PubMed PMID: 30283592; PubMed Central PMCID: PMC6159026.

132: Munawwar A, Gupta S, Sharma SK, Singh S. Seroprevalence of HSV-1 and 2 in HIV-infected males with and without GUD: Study from a tertiary care setting of India. J Lab Physicians. 2018 Jul-Sep;10(3):326-331. doi: 10.4103/JLP.JLP_7_18. PubMed PMID: 30078971; PubMed Central PMCID: PMC6052809.

BACKGROUND: Herpes simplex virus (HSV) infection is associated with an increased risk of both human immune deficiency virus (HIV) transmission and acquisition. However, in India, literature on HSV infections in in HIV-infected males has been scarce. The present study was carried out to assess the seroprevalence of these viruses in HIV-infected males, so as to provide a baseline data from India and report on HSV associated GUD prevalence in HIV infected males.

OBJECTIVE: The aim of the study was to estimate the seroprevalence of herpes simplex type 1 and 2 viruses in HIV-infected males with and without genital ulcers disease (GUD).
MATERIAL AND METHODS: It was a prospective study. We included a total of 351 male participants in this study. Among these 233 were HIV-infected and 118 HIV-uninfected males who served as controls. The seroprevalence was estimated, using HSV-1 and 2 type specific IgG and IgM antibodies by ELISA.
RESULTS: HIV-infected patients had a median age of 32 ± 6.97 years (interquartile range: 28-36). Of the 351 males, 25.92% (91/351) were infected with HSV-1 and HSV-2 both. The overall seroprevalence of HSV-1 singly infected, HSV-2 singly infected, and dual infection in HIV-infected males was 39.92%, 25.58%, and 37.33% whereas in HIV-uninfected group the corresponding figures were 71.18%, 5.08%, and 3.38%, respectively. Seven of 233 (3%) HIV-infected males were having incident HSV infection. GUD was reported in both HSV-1 and HSV-2 seropositive individuals.
CONCLUSIONS: Both HSV-1 and HSV-2 infections were found to be associated with GUD in HIV-infected patients. The prevalence of HIV-HSV co-infection among GUD patients is high.

133: Nadarajah J, Sebastian LJD, Jain N, Gaikwad SB, Jauhari P, Saini A. Endovascular Management of a Rare Case of Pediatric Vertebral Artery Mycotic Aneurysm: A Case Report. Pediatr Neurosurg. 2018;53(5):346-350. doi: 10.1159/000490063. Epub 2018 Jul 4. PubMed PMID: 29975956.

Pediatric posterior-circulation aneurysms are uncommon, difficult-to-treat lesions associated with significant morbidity and mortality. Infections and trauma are important risk factors in children. Here, we present a 10-year-old boy with a lower respiratory tract infection, rapidly progressive right-neck swelling, and weakness of the right upper limb. Imaging revealed a partially thrombosed right vertebral-artery pseudoaneurysm with multiple cavitory lung lesions. Subsequent laboratory work-up showed underlying primary immunodeficiency disorder (chronic granulomatous disease). The aneurysm was successfully managed by parent-artery occlusion. The child made a complete recovery without neurological sequelae.

134: Nair S, Vanathi M, Mahapatra M, Seth T, Kaur J, Velpandian T, Ravi A, Titiyal JS, Tandon R. Tear inflammatory mediators and protein in eyes of post allogenic hematopoeitic stem cell transplant patients. Ocul Surf. 2018 Jul;16(3):352-367. doi: 10.1016/j.jtos.2018.04.007. Epub 2018 May 1. PubMed PMID: 29723628.

AIM: To analyze tear cytokines levels and their correlation to ocular surface parameters in allogenic hematopoietic stem cell transplants (allo-HSCT) patients.
METHODS: Prospective longitudinal study of allo-HSCT patients and controls for ocular surface evaluation (OSDI, TBUT, Schirmer's test, staining scores), tear biochemical analysis for protein, cytokines [IL-10, IL-12, IL-2, IL-4, IL-6, IL-17, interferon (IFN)-gamma, tumor necrosis factor (TNF)-alpha, VEGF], MMPs [MMP 2, 9, 7, 13, 10 and chemokine (IL-8)], & VEGF on three consecutive follow up visits (at three monthly interval) was done.
RESULTS: Of 24 post allo-HSCT patients (19 males, 5 females) & 12 controls (mean age 34.3 + 5.8 years) enrolled, 20 patients [mean age 33.4 + 7.77 years; mean time of recruitment of 5.2 + 2.12 months following alloHSCT] who completed three consecutive follow up visits were included for analysis. Ocular GVHD (oGVHD) was seen in 8 patients (33.3%). Tears biochemical analysis showed elevated levels of interferon γ, IL 6, IL 8, IL 10, IL 12AP70, IL 17A, MMP 9 and VEGF in oGVHD eyes as compared to non-oGVHD & control eyes. Non-oGVHD eyes showed elevated tear MMP 7 and MMP 9 as compared to healthy controls. Tear protein levels were significantly decreased in oGVHD eyes and were equivocal in nonGVHD and control eyes. TBUT and ocular staining scores to correlate best with tear interleukins and MMPs.
CONCLUSION: Evaluation of levels of tear VEGF, total protein & MMP 9 can be of significance in identifying oGVHD in post alloHSCT patients.

135: Nakra T, Kakkar A, Agarwal S, Madan K, Sharma SC, Jain D. Endobronchial Smooth Muscle Tumors: A Series of Five Cases Highlighting Pitfalls in Diagnosis. J Pathol Transl Med. 2018 Jul;52(4):219-225. doi: 10.4132/jptm.2018.05.16. Epub 2018 Jul 11. PubMed PMID: 30021251; PubMed Central PMCID: PMC6056363.

Background: Primary endobronchial smooth muscle tumors (SMTs), which are extremely rare, include endobronchial leiomyomas and leiomyosarcomas. Clinically, SMTs present with signs and symptoms of bronchial obstruction, and lack specific radiological findings. Thus, histopathological examination is required for accurate diagnosis as well as for tumor grading. We examined the histomorphological and immunohistochemical features of endobronchial SMTs and highlighted pitfalls in diagnosis, particularly when using small biopsies.
Methods: Cases of primary endobronchial SMTs diagnosed at our Institute over the last 6 years (2012-2017) were retrieved from the departmental archives. Histopathological features and immunohistochemistry performed for establishing the diagnosis were reviewed.
Results: Five cases of SMTs occurring in endobronchial locations were identified. These included three cases of leiomyoma, and two cases of leiomyosarcoma. The age distribution of patients ranged from 13 to 65 years. Leiomyomas showed more consistent staining with smooth muscle markers (smooth muscle actin, desmin, and smooth muscle myosin heavy chain), while tumors of higher grade showed variable, focal staining, leading to erroneous diagnosis, especially on small biopsies.
Conclusions: The diagnosis of endobronchial SMTs relies on histopathological examination, for both confirmation of smooth muscle lineage and determination of the malignant potential of the lesion. Appropriate immunohistochemical panels including more than one marker of smooth muscle differentiation are extremely valuable for differential diagnosis from morphological mimics, which is necessary for instituting appropriate management.

136: Nambirajan A, Suri V, Kedia S, Goyal K, Malgulwar PB, Khanna G, Panda PK, Gulati S, Garg A, Sharma MC. Paediatric diffuse leptomeningeal tumor with glial and neuronal differentiation harbouring chromosome 1p/19q co-deletion and H3.3 K27M mutation: unusual molecular profile and its therapeutic implications. Brain Tumor Pathol. 2018 Jul;35(3):186-191. doi: 10.1007/s10014-018-0325-0. Epub 2018 Jul 20. PubMed PMID: 30030640.

Diffuse leptomeningeal glioneuronal tumor (DL-GNT) is a newly introduced tumor entity of uncertain prognosis characterised by a primary diffuse leptomeningeal growth pattern, oligodendroglial-like morphology and dual glial/neuronal differentiation. Predominantly occurring in children, these tumors present as chronic meningitis and mimic infectious/inflammatory diseases. They are surgically challenging tumors with a high incidence of delayed morbidity and mortality despite low-grade histology. Their molecular genetic profile is not fully elucidated and few reports have identified chromosome 1p and 19q deletions, and BRAF alterations. We present a rare instance of a DL-GNT in a 13-year-old female who presented with slowly progressive and sequential neurological deficits over a 12-month duration. Imaging showed leptomeningeal thickening and spinal lesions. Biopsy from the spinal mass showed histomorphological features characteristic of DL-GNT. Further molecular analysis revealed 1p and 19q co-deletion and H3K27M mutation, while no mutation were identified in IDH, TERT, or BRAF genes. Patient died 4 months after diagnosis. Only one previous case of DL-GNT has been reported to harbour H3K27M mutation. Although H3K27M mutations have been described in rare examples of low-grade glial and glioneuronal tumors, whether DL-GNTs with H3K27M represent a rare growth pattern of the aggressive H3K27M-mutant diffuse midline gliomas needs further clarification.

137: Nandakumar KP, Maitra S. Persistent left superior vena cava: What an anesthesiologist needs to know? J Anaesthesiol Clin Pharmacol. 2018 Jul-Sep;34(3):407-408. doi: 10.4103/joacp.JOACP_301_17. PubMed PMID: 30386032; PubMed Central PMCID: PMC6194840.

138: Nandakumar KP, Bhalla AP, Pandey RK, Baidya DK, Subramaniam R, Kashyap L. Comparison of Macintosh, McCoy, and Glidescope video laryngoscope for intubation in morbidly obese patients: Randomized controlled trial. Saudi J Anaesth. 2018 Jul-Sep;12(3):433-439. doi: 10.4103/sja.SJA_754_17. PubMed PMID: 30100843; PubMed Central PMCID: PMC6044164.

Objectives: The aim of the study was to compare time to intubation and glottic visualization between Macintosh, McCoy, and Glidescope video laryngoscope (GVL) in morbidly obese patients.
Methodology: Forty-five American Society of Anesthesiologists I-III morbidly obese patients were randomized into three groups of 15 each and time to intubation, Cormack-Lehane grading, and Intubation Difficulty Score (IDS) were compared.
Results: GVL took more time to intubate (TTI) compared to Macintosh and McCoy laryngoscope (P = 0.0001). Overall IDS were similar between the groups.
Conclusion: To conclude, GVL takes longer TTI with no added advantage in IDS and hemodynamic response to intubation in morbidly obese patients. McCoy is only as effective as Macintosh and hence Macintosh laryngoscope should be laryngoscope of choice due to its widespread availability and familiarity.

139: Narula J, Choudhury A, Sharma A. Pericardiocentesis can be nasty. Accidents do occur while "Rail-roading" Sheaths and pigtails! Ann Card Anaesth. 2018 Jul-Sep;21(3):290-292. doi: 10.4103/aca.ACA_115_17. PubMed PMID: 30052218; PubMed Central PMCID: PMC6078033.

Pericardiocentesis is a challenging procedure and complications may vary depending on the patient-specific risk factors and procedural indications. Cardiac chamber perforation and the subsequent insertion of pigtail catheter into the main pulmonary artery are an unreported mishap during attempted pericardiocentesis. This potentially life-threatening complication is completely preventable by identification of high-risk patients and appropriate use of available technologies. Adjunctive imaging decreases procedural risk for difficult-to-access pericardial fluid collections and must be used to prevent inadvertent morbidities.

140: Nath S, Bhoi D, Mohan VK, Talawar P. USG-guided continuous erector spinae block as a primary mode of perioperative analgesia in open posterolateral thoracotomy: A report of two cases. Saudi J Anaesth. 2018 Jul-Sep;12(3):471-474. doi: 10.4103/sja.SJA_755_17. PubMed PMID: 30100851; PubMed Central PMCID: PMC6044176.

The postoperative pain management in open thoracotomy is very crucial as the effective analgesia can prevent respiratory and thrombotic complications and lead to early mobilization and discharge. The thoracic epidural analgesia is the gold standard in such surgeries; however, there are few adverse effects such as hypotension, dural puncture, and contralateral block that always warrants safer alternative. Recently, with the advent of ultrasound, the regional anesthetic techniques are getting more popular to avoid such complications. Erector spinae plane (ESP) block is one of the novel techniques that has been described as a safe thoracic paravertebral block. We are reporting here the continuous ESP block as a primary mode of postoperative analgesia which was continued for 48 h. The intraoperative opioid requirement was very less, and the maximum NRS score in postoperative period was 4 at 12 h, which was well managed with multimodal analgesic regimen along with rescue doses of opioid.

141: Nayak M, Nag HL, Gaba S, Nag TC, Sharma S. Quantitative correlation of mechanoreceptors in tibial remnant of ruptured human anterior cruciate ligament with duration of injury and its significance: an immunohistochemistry-based observational study. J Orthop Traumatol. 2018 Jul 18;19(1):5. doi: 10.1186/s10195-018-0498-7. PubMed PMID: 30182142; PubMed Central PMCID: PMC6123315.

BACKGROUND: Proprioception is a specialized sensory modality encompassing the movement of the joint and its position in space. Reconstruction of the anterior cruciate ligament (ACL) does not always yield expected outcome, suggesting that successful reconstruction depends on not only the ultimate strength of the graft but also recovery of proprioception. Treatment delay is a significant concern in developing countries, e.g., in Asia. Thus, presence of mechanoreceptors is one of the factors having paramount importance for successful outcome. We conducted this study to identify mechanoreceptors via immunohistochemical staining and correlate their presence with duration of injury.
MATERIALS AND METHODS: A total of 38 injured native ACL stumps were harvested from patients undergoing ACL reconstruction and stained with neurofilament protein stain to detect functional mechanoreceptors.
RESULTS: Of the specimens, 44.7% stained positive for monoclonal antibody. No association was found between duration of injury and presence of mechanoreceptors ($p = 0.897$). No correlation was seen between age and side.
CONCLUSIONS: No correlation was found between duration of injury and presence of viable mechanoreceptors, hence it is beneficial to preserve the native ACL stump irrespective of the time interval between injury and surgery.
LEVEL OF EVIDENCE: III.

142: Nehate C, Moothedathu Raynold AA, Haridas V, Koul V. Comparative Assessment of Active Targeted Redox Sensitive Polymersomes Based on pPEGMA-S-S-PLA Diblock Copolymer with Marketed Nanoformulation. Biomacromolecules. 2018 Jul 9;19(7):2549-2566. doi: 10.1021/acs.biomac.8b00178. Epub 2018 Apr 18. PubMed PMID: 29648799.

In the present work, polymersomes based on self-assembled, folate-targeted, redox-responsive, ATRP-based amphiphilic diblock copolymer poly(polyethylene glycol)-S-S-polylactide with disulfide linkage were developed for efficient doxorubicin (DOX) delivery and compared with marketed DOXIL nanoformulation. The polymersomes formulation was optimized by quality by design approach providing monodisperse nanostructures of ~110 nm and enhanced DOX loading of ~20%. Polymersomes showed excellent stability as per the ICH guidelines over the extended storage period of 3 months. The in vitro drug release profile confirmed the redox sensitive behavior of polymersomes providing ~80% drug release in endosomal pH 5 with 10 mmol GSH as compared to ~20% release at pH 7.4. The targeted polymersomes achieved enhanced cellular internalization in folate receptor overexpressing cell lines, MDA-MB-231 and HeLa, providing ~24% higher tumor reduction than DOXIL in Ehrlich ascites tumor bearing Swiss albino mice.

143: Panda S, Rajeshwari M, Singh CA, Sharma SC, Sakthivel P. Radiation-Induced Sarcoma Originating in Recurrent Juvenile Nasopharyngeal Angiofibroma. Case Rep Oncol Med. 2018 Jul 15;2018:5695803. doi: 10.1155/2018/5695803. eCollection 2018. PubMed PMID: 30123593; PubMed Central PMCID: PMC6079622.

Juvenile nasopharyngeal angiofibroma is a benign disease affecting young males with a propensity to invade intracranially and into the orbit along preformed pathways. Complete surgical excision is the mainstay of management. Patients with multiple recurrences along with tumour extension into skull base and orbit can be considered for external beam radiation as either adjuvant or definitive treatment. Possibility of radiation-induced malignancy has been speculated by many authors, proof of which exists in only two studies so far. This report focuses on radiation-induced leiomyosarcoma in a patient with recurrent juvenile nasopharyngeal angiofibroma.

144: Pandey NN, Sharma A, Shaw M, Kumar S. Circumflex retroesophageal right aortic arch: rare differential of mediastinal widening. BMJ Case Rep. 2018 Jul 23;2018. pii: bcr-2018-226226. doi: 10.1136/bcr-2018-226226. PubMed PMID: 30037842.

145: Pandey NN, Sharma A, Jagia P. Imaging of anomalous pulmonary venous connections by multidetector CT angiography using third-generation dual source

CT scanner. Br J Radiol. 2018 Dec;91(1092):20180298. doi: 10.1259/bjr.20180298. Epub 2018 Jul 18. Review. PubMed PMID: 30004806; PubMed Central PMCID: PMC6319858.

Abnormal embryological development of the pulmonary veins can manifest as either partial or total anomalous drainage into the systemic venous circulation. Echocardiography does not provide adequate information in all cases as the optimal visualization of anomalous structures is limited by the availability of acoustic window; also it is highly operator dependent. However, multidetector CT angiography, with its multiplanar reformatting and volume rendering techniques, offers precise information about the three-dimensional anatomy and spatial relationships of the cardiovascular structures. With advent of dual source CT scanners and use of advanced dose reduction techniques, this information can be obtained in a short time with minimal radiation dose. In this pictorial essay, we present the multidetector CT imaging findings of the spectrum of total and partial anomalous pulmonary venous connections, using a third-generation dual source CT scanner.

146: Pandey S, Dash D. Cellular age in the manifestation of disease-relevant phenotypes in Huntington's disease. Mov Disord. 2018 Jul;33(7):1096. doi: 10.1002/mds.27425. PubMed PMID: 30153391.

147: Pangeni R, Mittal S, Arava S, Hadda V, Ramam M, Mohan A, Khilnani GC, Guleria R, Madan K. A 44-year-old man with hemoptysis. Lung India. 2018 Jul-Aug;35(4):343-347. doi: 10.4103/lungindia.lungindia_282_17. PubMed PMID: 29970778; PubMed Central PMCID: PMC6034369.

A 44-year-old man with background history of diffuse cutaneous systemic sclerosis and dilated cardiomyopathy receiving immunosuppressive medications, presented with a 2-month history of cough and streaky hemoptysis. Clinicoradiological features were consistent with an endotracheal mass. Subsequently, the patient developed nodular skin lesions and the tracheal mass increased in size causing central airway obstruction. This clinicopathologic conference discusses the clinical and radiological differential diagnoses of such a clinical presentation and their management options.

148: Panwar R. Letter to the Editor for "Low Versus Standard Urine Output Targets in Patients Undergoing Major Abdominal Surgery". Ann Surg. 2018 Jul;268(1):e22-e23. doi: 10.1097/SLA.0000000000002488. PubMed PMID: 28837446.

149: Parakh N, Baliyan V, Jain P, Sharma S, Kumar A. Bizarre Arterial Beading in a Child With Stroke. Pediatr Neurol. 2018 Sep;86:75-76. doi: 10.1016/j.pediatrneurol.2018.06.010. Epub 2018 Jul 4. PubMed PMID: 30082242.

150: Patekar M, Gogia A, Tiwari A, Kumar L, Sharma A, Mallick SR, Sharma MC, Thulkar S, Gupta R. Adult Burkitt lymphoma: An institutional experience with a uniform chemotherapy protocol. South Asian J Cancer. 2018 Jul-Sep;7(3):195-199. doi: 10.4103/sajc.sajc_230_17. PubMed PMID: 30112340; PubMed Central PMCID: PMC6069339.

Background: Burkitt lymphoma (BL) is treated with short, intensive, noncross resistant multidrug chemotherapy regimens. The management of this aggressive lymphoma is a challenge in our resource-limited setting, and the published data from India is scarce.
Aim: This retrospective study aims to evaluate the clinical features and treatment outcomes in adult patients with BL treated with uniform chemotherapy, cyclophosphamide, vincristine, doxorubicin, methotrexate, ifosfamide, etoposide, cytarabine (CODOX-M/IVAC) protocol (± Rituximab).
Materials and Methods: The hospital records between 2011 and 2017 were reviewed to identify adult patients (age ≥18 years) who were treated with CODOX-M/IVAC protocol (± Rituximab). The demographic and clinical details, treatment,

outcomes, and toxicity were recorded from the patient's prospectively maintained case records.
Results: Eighteen patients were included in this study. The median age was 38 years with male:female ratio 3.5:1. The majority of patients were high risk (14/18). All patients had extranodal site of involvement. The treatment completion rate was 83.3%. The overall response rate = 77.8% including complete response rate = 66.7%. Five patients (27%) had progressive disease on therapy. The estimated 2-year overall survival and event-free survival were 73% and 68.4%, respectively. The most common toxicity was myelosuppression (grade v3/4 neutropenia = 88.8%, grade 3/4 thrombocytopenia = 77.7%, and grade 3/4 anemia = 66.6%), febrile neutropenia was seen in 66.6% cases. Most common nonhematological toxicity was mucositis (grd3/4 = 33.3%). No toxic death was seen.
Conclusion: This one of the first retrospective analyses of treatment outcomes from India suggests that our patients are demographically and clinically similar to the western counterpart. The treatment completion rate is high despite significant toxicity. BL has a good outcome if treated adequately.

151: Patra S, Sethuraman G, Kumar R. Turban Tumor: A Classical Presentation of Brooke-Spiegler Syndrome. Indian Dermatol Online J. 2018 Jul-Aug;9(4):284-285. doi: 10.4103/idoj.IDOJ_320_17. PubMed PMID: 30050828; PubMed Central PMCID: PMC6042198.

152: Patra S, Nimitha P, Kaul S, Valakkada J, Verma KK, Ramam M, Bhari N. Primary cutaneous histoplasmosis in an immunocompetent patient presenting with severe pruritus. Indian J Dermatol Venereol Leprol. 2018 Jul-Aug;84(4):465-468. doi: 10.4103/ijdvl.IJDVL_695_17. PubMed PMID: 29620044.

153: Peshin SS, Gupta YK. Poisoning due to household products: A ten years retrospective analysis of telephone calls to the National Poisons Information Centre, All India Institute of Medical Sciences, New Delhi, India. J Forensic Leg Med. 2018 Aug;58:205-211. doi: 10.1016/j.jflm.2018.07.005. Epub 2018 Jul 10. PubMed PMID: 30015223.

Extensive use of different chemicals in various fields and their easy availability has led to an increased incidence of accidental and intentional poisoning in developing countries including India. A diverse range of household products commonly used for domestic purposes comprise pesticides, household cleaners, thermometer mercury, antiseptics, kerosene, paint thinners etc. Any of these products, if misused or mishandled can cause poisoning. In India, the National Poisons Centre (NPIC) at the All India Institute of Medical Sciences, New Delhi, provides information on management of poisoning to treating physicians. Analysis of data based on telephone calls received by the NPIC (April 2006-March 2016) has highlighted a high incidence of poisoning due to household products, followed by pharmaceuticals, agricultural pesticides and industrial chemicals. The objective of the present retrospective study was to determine the incidence of poisoning due to various household products as reported to the NPIC during the ten years period. The total number of calls received by the Centre was 16,420. There were 7114 calls (45.5%) due to household products with adults (>18yrs.) and children (<1-18yrs.) constituting 38.7% and 61.2% calls respectively. Males outnumbered females (M = 62.4%, F = 37.5%). The mode of poisoning was mainly unintentional (66.8%) followed by intentional mode (33.2%). The commonest route of exposure was oral (95.6%). Household pesticides were commonly implicated (43.7%) followed by household cleaners (21.8%), thermometer mercury (5.2%) naphthalene balls (5%), antiseptics (3%), kerosene (2%) and paint thinner (2%). Miscellaneous products comprising of camphor, silica gel, hair dye, nail polish remover, cosmetics, adhesives etc were also involved in poisoning (17.1%). The trend and pattern of poisoning varies in different parts of the country, because all calls on poisoning are not reported to the Centre. So the data as such may not be a true reflection of the scenario in India. However, the results do indicate an increasing incidence of poisoning due to household products especially in children. The probable reasons for high incidence could be careless storage, ignorance, non compliance with prescribed instructions for use

and negligible parental supervision in case of children. The results of the study highlight, an urgent need to identify high risk circumstances, common toxic products involved and implementation of prevention and awareness programmes, to achieve poisons control at home.

154: Phulware RH, Singh SK, Singh G, Barwad A. Microfilaria presenting as nephrotic syndrome in a young female. IDCases. 2018 Jul 6;13:e00424. doi: 10.1016/j.idcr.2018.e00424. eCollection 2018. PubMed PMID: 30101069; PubMed Central PMCID: PMC6077169.

155: Prasad GL, Sinha S, Krishna G. Rupture of spinal dermoid cyst with intracranial dissemination: Report of a case and review of the literature. Neurol India. 2018 Jul-Aug;66(4):1195-1199. doi: 10.4103/0028-3886.236984. PubMed PMID: 30038126.

156: Pujari A, Swamy DR, Singh R, Mukhija R, Chawla R, Kumar A. Ultrasonographic assessment of ophthalmic diseases in low-income countries. Trop Doct. 2018 Oct;48(4):294-297. doi: 10.1177/0049475518787379. Epub 2018 Jul 17. PubMed PMID: 30012083.

We undertook a study between December 2016 and February 2017 on 1637 of 2101 patients with clearly documented findings. These underwent ocular B-scan ultrasonography (USG). Their ages were in the range of 10 days to 92 years; among these patients, 921 (56.26%) were male and 224 (13.68%) were children. Among the adults, 669 (40.86%) patients had anterior segment and 636 (38.85%) had posterior segment pathology. In addition, there were 108 (6.59%) with orbital pathology. Our experience is that USG is an effective, quick, low-cost and non-invasive diagnostic tool for the diagnosis of various ocular and orbital conditions in high patient volume centres (including children and adults) especially where resources are limited.

157: Pujari A, Temkar S, Agarwal S, Garg G, Chawla R, Kumar A. Foveolar simple retinal pigment epithelial hamartoma. Indian J Ophthalmol. 2018 Jul;66(7):999-1000. doi: 10.4103/ijo.IJO_54_18. PubMed PMID: 29941750; PubMed Central PMCID: PMC6032753.

158: Radhakrishnan DM, Ramanujam B, Srivastava P, Dash D, Tripathi M. Effect of providing sudden unexpected death in epilepsy (SUDEP) information to persons with epilepsy (PWE) and their caregivers-Experience from a tertiary care hospital. Acta Neurol Scand. 2018 Nov;138(5):417-424. doi: 10.1111/ane.12994. Epub 2018 Jul 9. PubMed PMID: 29984404.

OBJECTIVE: The primary objective of present study was to observe the effect of providing SUDEP (Sudden Unexpected Death in Epilepsy) information on drug adherence in persons with epilepsy (PWE). We also looked at impact of disclosing SUDEP information on patient's quality of life and mood.
MATERIAL AND METHODS: This prospective study had a pretest/post-test design. A total of 231 consecutive PWE (>15 years) were enrolled. Of these 121 PWE received information about SUDEP in addition to standard epilepsy care. One hundred and ten PWE (control group) received routine standard epilepsy care but did not receive SUDEP information. Follow up assessment was done at 6 months. The primary outcome was a change in drug adherence (measured by Modified Morisky Medication Adherence Scale, MMAS) in PWE following disclosure of SUDEP information.
RESULTS: After 6 months, 116 PWE in the SUDEP information group and 106 in control group were available for follow up. A non-significant higher adherence was observed in the SUDEP information group as compared to the control group (Mean MMAS change 0.51 ± 1.66 vs 0.25 ± 1.26, P value = 0.194). No significant change was perceived in patient's anxiety and depression levels or quality of life in either group.
CONCLUSION: The present study suggests that providing information on SUDEP to PWE and their caregivers may increase drug adherence without adverse effect on

quality of life or mood. Well-designed studies with high methodological quality are required to determine the precise effect size associated with disclosure of SUDEP information on drug adherence in PWE.

159: Ramachandran R, Bhattacharjee S, Marada S, Rewari V. Ultrasonography and Seldinger's technique: Using the best of both worlds for difficult radial artery cannulation! J Anaesthesiol Clin Pharmacol. 2018 Jul-Sep;34(3):420-421. doi: 10.4103/joacp.JOACP_15_18. PubMed PMID: 30386040; PubMed Central PMCID: PMC6194826.

160: Rastogi S, Dhamija E, Barwad A, Aggarwal A, Sharma A, Panday R. Advanced Dermatofibrosarcoma Protuberans Treatment With Imatinib: Experience From a Dedicated Sarcoma Medical Oncology Clinic in India. J Glob Oncol. 2018 Jul;(4):1-7. doi: 10.1200/JGO.18.00007. PubMed PMID: 30085879; PubMed Central PMCID: PMC6223511.

Purpose Advanced dermatofibrosarcoma protuberans (DFSP) is an exceptionally uncommon disease with scarce literature, especially from developing countries. Molecular testing is unfortunately not available in India, and expert diagnosis by a sarcoma pathologist is available only in tertiary care centers. Materials and Methods We retrospectively analyzed consecutive patients with inoperable DFSP (on the basis of expert histopathology only) who presented to our sarcoma medical oncology clinic from January 2016 to July 2017. Results There were a total of seven patients, with median age of 35 years, predominantly males (85.7%). Fibrosarcomatous variant and metastatic disease were present in six (85.7%) patients. Partial response rates were 71.4%, and overall disease control was 85.7%. Median progression-free survival was 14 months. Conclusion DFSP diagnosis on the basis of expert histopathology in the absence of translocation can help out in targeted therapy-based treatment until translocation testing becomes available. The fibrosarcomatous variant has poor outcome, and further research is needed to help this group of patients.

161: Rawat C, Guin D, Talwar P, Grover S, Baghel R, Kushwaha S, Sharma S, Agarwal R, Bala K, Srivastava AK, Kukreti R. Clinical predictors of treatment outcome in North Indian patients on antiepileptic drug therapy: A prospective observational study. Neurol India. 2018 Jul-Aug;66(4):1052-1059. doi: 10.4103/0028-3886.237000. PubMed PMID: 30038093.

Background: Nearly 40%-50% of the individuals fail to respond to first line antiepileptic drug (AED) monotherapy and 30% are refractory, which calls for the need to recognize predictive markers for treatment failure. This study aims to identify clinical factors predictive of a poor prognosis in patients on AED therapy.
Materials and Methods: A prospective follow-up study involving 1056 patients with epilepsy (PWE) aged 5-67 years from North India on phenytoin (PHT, n = 247), carbamazepine (CBZ, n = 369), valproate (VA, n = 271), phenobarbital (PB, n = 50), and multitherapy (MultiT, n = 119) was conducted between 2005 and 2015. Seizure and epilepsy types were diagnosed based on the classifications by the International League Against Epilepsy (ILAE). Patients remaining seizure-free during the past 1 year were assigned to the "no seizure" group and patients experiencing seizure recurrence were assigned to the "recurrent seizures" group.
Results: Of the total, 786 (74.4%) patients were successfully followed up with 60% achieving 1-year seizure remission. Seizure recurrence was observed in the remaining 40% of the patients with a high likelihood in patients with the disease onset at ≤5 years of age [55% vs. 38%, P = 0.0016, odds ratio (OR) = 2.02 (95% confidence interval (CI) = 1.31-3.13)], in patients with cryptogenic epilepsy than with idiopathic/symptomatic epilepsy (48% vs. 32%, P = 0.0049, OR = 1.61 [95% CI = 1.16-2.24]), and in patients with pretreatment seizure frequency ≥12/year (46% vs. 27%, P < 0.0001, OR = 2.21 [95% CI = 1.61-3.05]). Logistic regression analysis also revealed a significant association of seizure recurrence (P < 0.05) with the three variables.
Conclusion: Our findings suggest that an early disease onset, cryptogenic

epilepsy, and a higher pretreatment seizure frequency are related to a poor prognosis or poor remission in people with epilepsy (PWE) on AED therapy.

162: Rawre J, Rai M, Namdeo D, Das R, Khanna N, Dar L, Dhawan B. Herpes simplex virus type 2 and cytomegalovirus perigenital ulcer in an HIV infected woman. Indian J Med Microbiol. 2018 Jul-Sep;36(3):441-443. doi: 10.4103/ijmm.IJMM_18_203. PubMed PMID: 30429404.

We report a case of mucocutaneous Herpes Simplex Virus (HSV)-2 and Cytomegalovirus (CMV) infection in a 39-year-old female with acquired immunodeficiency syndrome, who presented with a perigenital ulcer. The patient was receiving antiretroviral treatment (ART) for 3 months before presentation. Scraping from the perigenital ulcer was positive for HSV-2 and Treponema pallidum using polymerase chain reactions (PCR). The extent and duration of the lesions led us to consider the possibility of coinfection with CMV. The patient also tested positive for CMV by PCR. On subsequent follow-up after 8 weeks, the genital lesions had healed completely. This is possibly ascribable to the ART, which led to significant immune reconstitution.

163: Revadi SS, Kavitha V, Mooventhan A. Effect of yoga and naturopathy on liver, renal and cardiorespiratory functions of a patient with hepatic cirrhosis with portal hypertension and ascites: a case report. J Complement Integr Med. 2018 Jul 19;15(4). pii: /j/jcim.2018.15.issue-4/jcim-2017-0098/jcim-2017-0098.xml. doi: 10.1515/jcim-2017-0098. PubMed PMID: 30024854.

A 39-year-old, married man was diagnosed with hepatic cirrhosis with portal hypertension and ascites in February 2016. His symptoms as described by him began with generalized body weakness, breathlessness and sudden weight gain of 16 kg within 3 weeks. History of regular intake of alcohol since 7 years and tremendous family stress were present. Patient underwent conventional medication for 6 months and ayurvedic medications for 4 months. In January 2017, he visited our hospital with the same complaints and underwent integrated naturopathy and yoga therapies (INYTs) for 4 weeks along with Ayurveda and conventional medications. The results of this study showed a better reduction in body weight, body mass index, abdominal girth, systolic blood pressure and diastolic blood pressure along with improvement in breath holding time, hemoglobin level, liver function test and renal function test. It suggests that 4 weeks of INYT with Ayurveda and conventional medications was effective in patients with hepatic cirrhosis with portal hypertension and ascites. Further studies are required to warrant these results.

164: Rumpf HJ, Achab S, Billieux J, Bowden-Jones H, Carragher N, Demetrovics Z, Higuchi S, King DL, Mann K, Potenza M, Saunders JB, Abbott M, Ambekar A, Aricak OT, Assanangkornchai S, Bahar N, Borges G, Brand M, Chan EM, Chung T, Derevensky J, Kashef AE, Farrell M, Fineberg NA, Gandin C, Gentile DA, Griffiths MD, Goudriaan AE, Grall-Bronnec M, Hao W, Hodgins DC, Ip P, Király O, Lee HK, Kuss D, Lemmens JS, Long J, Lopez-Fernandez O, Mihara S, Petry NM, Pontes HM, Rahimi-Movaghar A, Rehbein F, Rehm J, Scafato E, Sharma M, Spritzer D, Stein DJ, Tam P, Weinstein A, Wittchen HU, Wölfling K, Zullino D, Poznyak V. Including gaming disorder in the ICD-11: The need to do so from a clinical and public health perspective. J Behav Addict. 2018 Sep 1;7(3):556-561. doi: 10.1556/2006.7.2018.59. Epub 2018 Jul 16. PubMed PMID: 30010410.

The proposed introduction of gaming disorder (GD) in the 11th revision of the International Classification of Diseases (ICD-11) developed by the World Health Organization (WHO) has led to a lively debate over the past year. Besides the broad support for the decision in the academic press, a recent publication by van Rooij et al. (2018) repeated the criticism raised against the inclusion of GD in ICD-11 by Aarseth et al. (2017). We argue that this group of researchers fails to recognize the clinical and public health considerations, which support the WHO perspective. It is important to recognize a range of biases that may influence this debate; in particular, the gaming industry may wish to diminish its

responsibility by claiming that GD is not a public health problem, a position which maybe supported by arguments from scholars based in media psychology, computer games research, communication science, and related disciplines. However, just as with any other disease or disorder in the ICD-11, the decision whether or not to include GD is based on clinical evidence and public health needs. Therefore, we reiterate our conclusion that including GD reflects the essence of the ICD and will facilitate treatment and prevention for those who need it.

165: Sachdeva A, Gunasekaran V, Ramya HN, Dass J, Kotwal J, Seth T, Das S, Garg K, Kalra M, Sirisha RS, Prakash A; 'Consensus in Diagnosis and Management of Hemophilia' Committee*, Indian Academy of Pediatrics. Consensus Statement of the Indian Academy of Pediatrics in Diagnosis and Management of Hemophilia. Indian Pediatr. 2018 Jul 15;55(7):582-590. PubMed PMID: 30129541.

JUSTIFICATION: Despite having standard principles of management of hemophilia, treatment differs in various countries depending on available resources. Guideline for management of hemophilia in Indian setting is essential.
PROCESS: Indian Academy of Pediatrics conducted a consultative meeting on Hemophilia on 18th September, 2016 in New Delhi, which was attended by experts in the field working across India. Scientific literature was reviewed, and guidelines were drafted. All expert committee members reviewed the final manuscript.
OBJECTIVE: To bring out consensus guidelines in diagnosis and management of Hemophilia in India.
RECOMMENDATIONS: Specific factor assays confirm diagnosis and classify hemophilia according to residual factor activity (mild 5-40%, moderate 1-5%, severe <1%). Genetic testing helps in identifying carriers, and providing genetic counseling and prenatal diagnosis. Patients with hemophilia should be managed by multi-specialty team approach. Continuous primary prophylaxis (at least low-dose regimen of 10-20 IU/kg twice or thrice per week) is recommended in severe hemophilia with dose tailored as per response. Factor replacement remains the mainstay of treating acute bleeds (dose and duration depends on body weight, site and severity of bleed). Factor concentrates (plasma derived or recombinant), if available, are preferred over blood components. Other supportive measures (rest, ice, compression, and elevation) should be instantly initiated. Long-term complications include musculoskeletal problems, development of inhibitors and transfusion-transmitted infections, which need monitoring. Adequate vaccination of children with hemophilia (with precautions) is emphasized.

166: Sadaf, Habib M, Khan MA, Najm MZ, Mallick MN, Sunita K, Shukla NK, Deo SVS, Husain SA. Hypermethylated LATS2 gene with decreased expression in female breast cancer: A case control study from North India. Gene. 2018 Nov 15;676:156-163. doi: 10.1016/j.gene.2018.07.033. Epub 2018 Jul 17. PubMed PMID: 30010037.

BACKGROUND: LATS2, a presumed tumor suppressor gene located on chromosome 13q11-12 is involved in cell growth related activity like regulation of cell cycle at G1/S. The reduced expression of LATS2 has been reported in many tumors; including tumors of Breast, which is to the best of our knowledge has not been studied in north Indian female breast cancer population.
OBJECTIVE: Here, we looked upon the expression pattern and methylation status of the LATS2 gene in north Indian female breast cancer cases to further strengthen its role as a tumor suppressor gene and more importantly as a cancer biomarker.
METHODS: mRNA expression level was determined by real time PCR in 140 Breast cancer patients, Protein expression was studied by Immunohistochemistry and Promoter methylation was studied by Methylation specific PCR. All findings were correlated with clinicopathological features.
RESULTS: LATS2 mRNA expression was remarkably downregulated in 67.85% (95/140) cases. The expression of Large Associated Tumor Suppressor 2 at protein level was also absent in 67.85% (95/140) cases. The absence of LATS2 protein strongly correlated with promoter hypermethylation where 91 out of a total of 107 hyper methylated cases showed absence of protein (91/107, 85%). The absence of LATS2 protein was strongly significant with HER2 neu status (0.01), TNM staging (0.009)

and Molecular subtype (0.024).
CONCLUSION: The decreased expression in breast cancer seems to be associated with hypermethylation of LATS2 promoter regions. Further LATS2 as a tumor suppressor can be recognized as a promising Biomarker in Breast cancer pathogenesis. Though, further studies, targeting larger sets of breast cancer population are required to establish LATS2 as a promising biomarker.

167: Saini C, Tarique M, Ramesh V, Khanna N, Sharma A. γδ T cells are associated with inflammation and immunopathogenesis of leprosy reactions. Immunol Lett. 2018 Aug;200:55-65. doi: 10.1016/j.imlet.2018.07.005. Epub 2018 Jul 11. PubMed PMID: 30006101.

BACKGROUND: Leprosy reactions appear episodically in leprosy patients, which lead to high inflammation, morbidity and peripheral nerve damage. The role of Th17 cell has been well studied in leprosy reactions but the role of γδ or unconventional T cells which is an other major source of IL-17 in many diseases, not studied in leprosy reactional episodes.
OBJECTIVE: The aim of the present study to elucidate the role of γδ T cells in leprosy reactions.
METHODOLOGY: A total of 40 untreated non-reaction and reactions patients were recruited. PBMCs were isolated and stimulated with M. leprae sonicated antigen (MLSA) for 48 h and immuno-phenotyping was done using flow cytometry. Moreover, γδ T cells were isolated by Magnetic beads technology and mRNA expression of IL-17, IFN-γ, TGF-β and FOXP3 were analyzed by real-time PCR (qPCR) and cytokine was estimated in the culture supernatant by ELISA.
RESULTS: γδ T cells were significantly increased in both Reversal reaction (RR) and Erythema nodosum leprosum (ENL) reaction patients. These cells produced significant amount of IL-17 and IFN-γ. Furthermore, CD3+TCRγδ+ T cells expressed transient FOXP3 with a low amount of TGF-β in both reactions as compared to stable patients. Moreover, low TGF-β producing TCR-γδ cells were associated with low phosphorylation of STAT5A.
CONCLUSION: This study will add to our understanding of the immunological features that mediate and regulate the pathogenesis of leprosy and may helpful to reduce the immuno-pathogenesis of leprosy reaction by targeting these cells.

168: Sakthivel P, Sikka K, Thakar A, Singh CA, Sharma SC, Rajeshwari M, Kakkar A. Role of narrow band imaging in the diagnosis of laryngeal lesions: Pilot study from India. Indian J Cancer. 2018 Jul-Sep;55(3):242-247. doi: 10.4103/ijc.IJC_590_17. PubMed PMID: 30693887.

INTRODUCTION: Narrow band imaging (NBI) is a new imaging technique developed to improve the diagnostic accuracy of head and neck cancers by depiction of tumor-specific neo-angiogenesis. The purpose of this study was to assess the value of NBI in the diagnosis of laryngeal lesions.
AIM: To assess the sensitivity and specificity of combined white light endoscopy (WLE) and NBI compared with WLE alone in the diagnosis of laryngeal lesions.
SETTINGS AND DESIGN: Prospective study.
MATERIALS AND METHODS: Thirty consecutive patients with various laryngeal lesions scheduled for microlaryngoscopic evaluation underwent WLE followed by NBI. Endoscopic NBI findings were classified into five types (I-V) according to the intraepithelial papillary capillary loop features. Types I-IV are considered benign, whereas type V is considered malignant. The observations were compared with histopathology.
STATISTICAL ANALYSIS: Sensitivity, specificity, and positive and negative predictive values for the diagnosis of malignancy (i.e., invasive carcinoma and carcinoma in situ) by means of NBI with WLE were calculated.
RESULTS: The sensitivity of WLE combined with NBI (100%) was higher than WLE alone (82.6%) in detecting laryngeal cancers. NBI helped in identifying four malignant lesions missed by WLE alone. Two children with respiratory papillomatosis also demonstrated type V pattern, a potential pitfall, leading to an overall positive predictive value of 92% and a negative predictive value of 100%.

CONCLUSION: Combining NBI with WLE increases the sensitivity of detection of laryngeal cancer and its precursor lesions. NBI is also useful in some benign lesions as well as in post-radiotherapy patients.

169: Saluja A, Singh RK, Dash D, Bhatia R, Tripathi M. Jaw clonus and opercular syndrome in ALS: a rare and interesting finding. Acta Neurol Belg. 2018 Dec;118(4):547-548. doi: 10.1007/s13760-018-0980-2. Epub 2018 Jul 12. PubMed PMID: 30003505.

170: Sarin K, Chauhan S, Bisoi AK, Hazarika A, Malhotra N, Manek P. Use of autologous umbilical cord blood transfusion in neonates undergoing surgical correction of congenital cardiac defects: A pilot study. Ann Card Anaesth. 2018 Jul-Sep;21(3):270-274. doi: 10.4103/aca.ACA_194_17. PubMed PMID: 30052213; PubMed Central PMCID: PMC6078044.

Background: Blood transfusion requirement during neonatal open heart surgeries is universal. Homologous blood transfusion (HBT) in pediatric cardiac surgery is used most commonly for priming of cardiopulmonary bypass (CPB) system and for postoperative transfusion. To avoid the risks associated with HBT in neonates undergoing cardiac surgery, use of autologous umbilical cord blood (AUCB) transfusion has been described. We present our experience with the use of AUCB for neonatal cardiac surgery.
Designs and Methods: Consecutive neonates scheduled to undergo cardiac surgery for various cardiac diseases who had a prenatal diagnosis made on the basis of a fetal echocardiography were included in this prospective observational study. After a vaginal delivery or a cesarean section, UCB was collected from the placenta in a 150-mL bag containing 5 mL of citrate-phosphate-dextrose-adenine-1 solution. The collected bag with 70-75 mL cord blood was stored at 2°C-6°C and tested for blood grouping and infections after proper labeling. The neonate's autologous cord blood was used for postcardiac surgery blood transfusion to replace postoperative blood loss.
Results: AUCB has been used so far at our institute in 10 neonates undergoing cardiac surgery. The donor exposure in age and type of cardiac surgery-matched controls showed that the neonates not receiving autologous cord blood had a donor exposure to 5 donors (2 packed red blood cells [PRBCs], including 1 for CPB prime and 1 for postoperative loss, 1 fresh frozen plasma, 1 cryoprecipitate, and 1 platelet concentrate) compared to 1 donor for the AUCB neonate (1 PRBC for the CPB prime). Postoperative blood loss was similar in both the groups of matched controls and study group. Values of hemoglobin, total leukocyte count, platelet counts, and blood gas parameters were also similar.
Conclusions: Use of AUCB for replacement of postoperative blood loss after neonatal cardiac surgery is feasible and reduces donor exposure to the neonate. Its use, however, requires a prenatal diagnosis of a cardiac defect by fetal echo and adequate logistic and psychological support from involved clinicians and the blood bank.

171: Seale AC, Agarwal R. Improving management of neonatal infections. Lancet. 2018 Jul 14;392(10142):100-102. doi: 10.1016/S0140-6736(18)31432-6. Epub 2018 Jul 6. PubMed PMID: 30025807.

172: Selekman RE, Shapiro DJ, Boscardin J, Williams G, Craig JC, Brandström P, Pennesi M, Roussey-Kesler G, Hari P, Copp HL. Uropathogen Resistance and Antibiotic Prophylaxis: A Meta-analysis. Pediatrics. 2018 Jul;142(1). pii: e20180119. doi: 10.1542/peds.2018-0119. Review. PubMed PMID: 29954832; PubMed Central PMCID: PMC6317567.

CONTEXT: Limited data exist regarding uropathogen resistance in randomized controlled trials of urinary tract infection (UTI) prevention and antibiotic prophylaxis.
OBJECTIVE: To assess the effect of prophylaxis on developing a multidrug-resistant first recurrent UTI among children with vesicoureteral reflux.

DATA SOURCES: Cochrane Kidney and Transplant Specialized Register through May 25, 2017.
STUDY SELECTION: Randomized controlled trials of patients ≤18 years of age with a history of vesicoureteral reflux being treated with continuous antibiotic prophylaxis compared with no treatment or placebo with available antibiotic sensitivity profiles.
DATA EXTRACTION: Two independent observers abstracted data and assessed quality and validity per Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Adjusted meta-analyses were performed by using a mixed-effects logistic regression model.
RESULTS: One thousand two hundred and ninety-nine patients contributed 224 UTIs. Patients treated with prophylaxis were more likely to have a multidrug-resistant infection (33% vs 6%, P < .001) and were more likely to receive broad-spectrum antibiotics (68% vs 49%, P = .004). Those receiving prophylaxis had 6.4 times the odds (95% confidence interval: 2.7-15.6) of developing a multidrug-resistant infection. One multidrug-resistant infection would develop for every 21 reflux patients treated with prophylaxis.
LIMITATIONS: Variables that may contribute to resistance such as medication adherence and antibiotic exposure for other illnesses could not be evaluated.
CONCLUSIONS: Prophylaxis increases the risk of multidrug resistance among recurrent infections. This has important implications in the risk-benefit assessment of prophylaxis as a management strategy and in the selection of empirical treatment of breakthrough infections in prophylaxis patients.

173: Selvan H, Yadav S, Tandon R. Big double bubble trouble: in vivo real time demonstration of 'mixed-type bubble' and its consequent effects during deep anterior lamellar keratoplasty. Eye (Lond). 2018 Jul;32(7):1282-1283. doi: 10.1038/s41433-018-0038-y. Epub 2018 Feb 16. PubMed PMID: 29449616; PubMed Central PMCID: PMC6043615.

174: Sharawat IK, Dawman L. Glutaric Aciduria Type 1 with Microcephaly: Masquerading as Spastic Cerebral Palsy. J Pediatr Neurosci. 2018 Jul-Sep;13(3):349-351. doi: 10.4103/JPN.JPN_79_17. PubMed PMID: 30271473; PubMed Central PMCID: PMC6144596.

Glutaric aciduria type 1 (GA-1) is an autosomal-recessive disorder caused by the deficiency of the mitochondrial enzyme glutaryl-CoA dehydrogenase. A 13-month-old boy presented with microcephaly, developmental delay, and progressive spasticity and was being treated as spastic cerebral palsy, later on had loss of developmental milestones after acute episode of illness at 12 months of age. The magnetic resonance imaging of brain revealed widened Sylvian fissure, hyperintensities in bilateral globus pallidus, and bilateral frontoparietal atrophy along with white matter loss. The urine examination by gas chromatography-mass spectroscopy revealed a marked excretion of glutaric acid and 3-hydroxyglutaric acid. The diagnosis of GA-1 was confirmed on the basis of characteristic neuroimaging, biochemical, and mutation studies. There are rare reports in the literature about association of GA-1 with microcephaly. The child was started on trihexyphenidyl, l -carnitine, and high-dose riboflavin, and dietary therapy in the form of low-protein diet was advised.

175: Sharawat IK, Dawman L. Cornelia de Lange Syndrome: A Case Series from a Resource-Limited Country. J Pediatr Neurosci. 2018 Jul-Sep;13(3):334-336. doi: 10.4103/JPN.JPN_25_18. PubMed PMID: 30271468; PubMed Central PMCID: PMC6144607.

Cornelia de Lange syndrome is a rare genetic condition with developmental disorder and malformation affecting multiple systems. To describe the clinical and laboratory details and outcome of the children diagnosed with Cornelia de Lange syndrome, we retrospectively studied six cases who presented to our hospital between the years 2013 and 2015. Almost all had developmental retardation, with recurrent respiratory tract infections, and feeding difficulties. Synophrys with long curly eyelashes with low anterior and posterior hairline was present in all the children. Cornelia de Lange syndrome is a

multisystem developmental disorder requiring interdisciplinary management. Symptomatic treatment generally given as therapy is very difficult. Early diagnosis and prompt management of associated disorder are useful for effective outcome of the disease.

176: Sharawat IK, Dawman L. Toddler With Intermittent Abnormal Behavior: Is It Isoniazid-Induced Psychosis? Pediatr Emerg Care. 2018 Jul 24. doi: 10.1097/PEC.0000000000001555. [Epub ahead of print] PubMed PMID: 30045351.

Psychosis is a state of altered behavior and mentation, and it is rarely reported in preschool children. Isoniazid is a commonly used drug in the treatment and prophylaxis of tuberculosis. It may cause psychosis in overdose but rarely with usual recommended doses. We report a case of drug-induced psychosis secondary to isoniazid intake in a 3-year-old child. She developed intermittent abnormal behavior for 2 weeks after intake of isoniazid. Drug-induced psychosis was a possibility, and the responsible drug was stopped. She improved following the withdrawal of isoniazid.

177: Sharma A, Karna ST, Tandon M, Pandey CK, Chaturvedi R, Vyas V, Goel AD. Use of ultrasound-guided preoperative diaphragmatic thickness as a predictor of postoperative weaning failure in recipients and donors scheduled for living donor liver transplant surgery. Saudi J Anaesth. 2018 Jul-Sep;12(3):406-411. doi: 10.4103/sja.SJA_12_18. PubMed PMID: 30100839; PubMed Central PMCID: PMC6044153.

Background and Objectives: The present study was designed to explore the utility of ultrasound-guided diaphragmatic thickness in the preoperative period in healthy controls scheduled for live-related donor hepatectomy and patients suffering from chronic liver disease scheduled for liver transplantation (LT) and its use as a predictor of postoperative weaning failure.
Materials and Methods: This prospective observational study was conducted in a tertiary health care center and 65 adult (18-70 years) participants (30 healthy liver donors and 35 liver transplant recipients) were enrolled for this study. Right diaphragmatic thickness of both donors and recipients was measured by B-mode ultrasound using a 10 MHz linear array transducer in the supine position in the operation theater just before induction of anesthesia. For subgroup analysis of the recipients, we further divided them into two groups - Group 1 (diaphragmatic thickness < 2 mm) and Group 2 (diaphragmatic thickness > 2 mm), and comparison was done for duration of mechanical ventilation. Intergroup comparison was made for duration of mechanical ventilation and various other parameters.
Results: The sonographic measurement of diaphragm revealed that its thickness is decreased in patients with chronic liver disease patients (2.12 ± 0.54 mm) as compared to healthy donors (3.70 ± 0. 58 mm). On multiple logistic regression, higher duration of mechanical ventilation was associated with diaphragmatic thickness < 2 mm (Group 1 of recipients) (adjusted odds ratio 0.86; 95% confidence interval: 0.75-0.99; P = 0.013) after adjusting for age, gender, and body mass index.
Conclusions: Diaphragmatic thickness is decreased in patients with chronic liver disease as compared to healthy liver donors. Preoperative measurement of ultrasound-guided right hemidiaphragm thickness can be used to predict weaning failure in patients undergoing LT. Other studies are needed to confirm these finding on different group of patients.

178: Sharma A, Kumar S, Jagia P. Pulmonary Artery Pseudoaneurysm in Hyper-IgE Syndrome: Rare Complication With Successful Endovascular Management. Vasc Endovascular Surg. 2018 Jul;52(5):375-377. doi: 10.1177/1538574418762656. Epub 2018 Mar 18. PubMed PMID: 29552943.

Hyper-IgE syndrome also known as Job syndrome is characterized by elevation of circulating immunoglobulin (IgE) levels and is usually associated with recurrent bacterial infections of the skin and sinopulmonary tract. Though bacterial pulmonary abscess and pneumatocele formation have been described, pulmonary

artery pseudoaneurysm in Job syndrome has not been reported in literature. Our report describes a case of large pulmonary artery pseudoaneurysm in a child with Job syndrome, who presented with massive hemoptysis. Emergent endovascular management was performed with percutaneous coil occlusion of the feeding artery.

179: Sharma R, Tandon V, Sawarkar D, Phalak M, Raheja A, Kale SS. Intracranial pressure (ICP) monitoring in diffuse brain injury: to do or not to do? Acta Neurochir (Wien). 2018 Jul 11. doi: 10.1007/s00701-018-3610-0. [Epub ahead of print] PubMed PMID: 29992383.

180: Sharma R, Sharma P, Katiyar V, Vora Z, Gurjar H. Hyponatremia Following Aneurysmal Subarachnoid Hemorrhage. World Neurosurg. 2018 Jul;115:481. doi: 10.1016/j.wneu.2018.02.197. PubMed PMID: 29958373.

181: Sharma R, Sharma P, Katiyar V, Vora Z, Gurjar H. Timing of Early Cranioplasty for Traumatic Brain Injury-the Debate Goes On. World Neurosurg. 2018 Jul;115:477. doi: 10.1016/j.wneu.2018.02.145. PubMed PMID: 29958370.

182: Sharma V, Garg B. Legends of Indian Orthopedics: Prof. B. N. Sinha. Indian J Orthop. 2018 Jul-Aug;52(4):443-444. doi: 10.4103/ortho.IJOrtho_333_18. PubMed PMID: 30078908; PubMed Central PMCID: PMC6055462.

183: Shaw M, Pandey NN, Sharma A, Sharma S. Pericardial calcification: an uncommon presentation of rheumatic heart disease. BMJ Case Rep. 2018 Jul 23;2018. pii: bcr-2018-226435. doi: 10.1136/bcr-2018-226435. PubMed PMID: 30037843.

184: Shukla G, Bajpai G, Gupta A, Katoch J, Mohammed A, Pandey RM, Goyal V, Srivastava A, Behari M. Evaluation of the diagnostic yield of ARQIP: A new restless legs syndrome diagnostic questionnaire and validation of its Hindi translation. Neurol India. 2018 Jul-Aug;66(4):1020-1027. doi: 10.4103/0028-3886.236962. PubMed PMID: 30038086.

Background: Restless legs syndrome (RLS) is misdiagnosed due to a variety of clinical presentations and lack of a diagnostic biomarker. Sociocultural differences in patients' reporting of symptoms further contribute to this under diagnosis. We developed an expanded diagnostic tool for RLS, incorporating all International RLS Study Group (IRLSSG) diagnostic criteria with a number of additional questions mainly focusing on specific sociocultural influences in RLS symptom reporting among Indians. The purpose of this study was to examine the change in the diagnostic yield of RLS, if any, through administration of this expanded questionnaire.
Materials and Methods: The AIIMS RLS questionnaire for Indian patients (ARQIP) was developed in English language, and then translated into Hindi. All consecutive patients attending Neurology and sleep disorders clinic with complaints of leg discomfort were recruited in the study. Two examiners evaluated all patients with complaints of leg discomfort seen by a senior Sleep Medicine expert, one using only IRLSSG diagnostic criteria and the other using the ARQIP. Patients were categorized as RLS or "no-RLS" by the expert, and this was considered as the "standard" for analysis.
Results: A total of 155 participants (78 males, 50.3%) with a mean age of 44.1 ± 14.5 years were enrolled. A total of 105 patients were diagnosed as having RLS (group 1) and the rest as having "non-RLS" (group 2). The ARQIP was found to have a much higher sensitivity (100% vs 73%), specificity (44% vs 32.7%), negative predictive value (100% vs 36.4%), and positive predictive value (79% vs 70%) compared to the standard questionnaire. The diagnostic yield of this tool was 26.7% (Confidence interval = 100-73.3).
Conclusions: The ARQIP for RLS diagnosis, validated in this study, has been observed to have a high sensitivity and a negative predictive value with a high diagnostic accuracy.

185: Singh A, Kumar R, Irugu DVK, Kumar R, Sagar P. Morphometric analysis of

arcuate eminence: A distinctive landmark for middle cranial fossa approach. J Craniomaxillofac Surg. 2018 Oct;46(10):1703-1706. doi: 10.1016/j.jcms.2018.07.013. Epub 2018 Jul 25. PubMed PMID: 30100384.

BACKGROUND: The arcuate eminence (AE) is a bony prominence on the middle fossa plate of the temporal bone, hypothesized to be variably associated with superior semicircular canal (SSC) relief, temporal lobe sulcus, and subjacent air cells. We present various morphometric parameters of the AE, as seen using a middle fossa approach.
MATERIALS AND METHODS: The study used 18 formalin-preserved cadaveric human temporal bones. Various morphological and morphometric parameters pertaining to topographic orientation of the AE in relation to surrounding landmarks used in a middle mossa approach were noted, before and after microdissection of the AE under a Leica M320 F12 microscope, using otologic microdrills and suction irrigation. The morphometric parameters were analyzed using ImageJ 1.46r software.
RESULTS: The overall incidence of AE was 83% (n = 15/18). The most common shape and pattern noted were linear (53.3%, 8/15) and dual arc (46.7%, 7/15), respectively. Mean angle between the AE and SSC was 19°, with a standard deviation of 15° and a range of 2-49°. The AE overlapped the SSC in 40% (6/15) of bones, and did not correspond to the SSC in 7% of cases. A partially overlapping positional correspondence was noted in 53.3% (8/15).
CONCLUSION: When present, the AE corresponds to the SSC in 40% of cases, but it can serve as a rough guide to the SSC in up to 93% of cases. Surgeons need to be familiar with the varying morphology of AEs in order to execute a rapid and safe dissection during middle fossa approaches.

186: Singh A, Moorthy G, Bajpai M. Effect of gastrocystoplasty on height and bone density in children. Urol Ann. 2018 Jul-Sep;10(3):313-316. doi: 10.4103/0974-7796.236524. PubMed PMID: 30089992; PubMed Central PMCID: PMC6060595.

Introduction: Gastrointestinal tissue in the urinary tract results in numerous metabolic changes. This study investigates the effects of augmentation gastrocystoplasty on the height and bone mineralization in bladder exstrophy patients.
Aim and Objective: To analyze the long-term outcome following gastrocystoplasty in terms of height, bone mineral density, acid base changes, and complications.
Materials and Methods: Cross-sectional study was done after obtaining institutional ethics committee clearance. Inclusion criteria included retrospective analysis of all cases who had undergone gastrocystoplasty since 1992 and prospective analysis of all cases who are undergoing gastrocystoplasty during the study period from June 2008 to December 2010. Exclusion criteria included follow up period of less than 2 years and cases lost to follow up. Indian standard charts were used for anthropometric measurement, and bone density scan of lumbar vertebrae and upper end of femur were done for bone matrix and mineral density.
Results: A total of 23 patients were included in the study. Out of 23 patients, 16 were males and 7 were females. Mean age at gastrocystoplasty was 8.28 years, and mean follow up period was 60 months. The median pre-augmentation and post-augmentation percentile height and weight were 56, 59 and 59, 61 respectively. Mean bone density value was 0.654.
Conclusion: Augmentation gastrocystoplasty is a safe and viable option without any adverse effect on height or bone mineral density without altering metabolic or acid base homeostasis.

187: Singh AD, Mian A. Letter by Singh and Mian Regarding Article, "Mental Stress-Induced-Myocardial Ischemia in Young Patients With Recent Myocardial Infarction: Sex Differences and Mechanisms". Circulation. 2018 Jul 31;138(5):546-547. doi: 10.1161/CIRCULATIONAHA.118.034499. PubMed PMID: 30571527.

188: Singh AN, Pal S, Kilambi R, Madhusudhan KS, Dash NR, Tandon N, Sahni P. Diabetes after pancreaticoduodenectomy: can we predict it? J Surg Res. 2018 Jul;227:211-219. doi: 10.1016/j.jss.2018.02.010. Epub 2018 Mar 20. PubMed PMID: 29804855.

BACKGROUND: There is limited literature about the perioperative factors which can predict endocrine insufficiency after pancreaticoduodenectomy (PD). The primary aim was to correlate percentage pancreatic remnant volume (%RV) after PD in nondiabetic patients with the development of new-onset impaired glucose tolerance/diabetes mellitus (IGT/DM). The secondary aim was to identify the risk factors for new-onset IGT/DM.
METHODS: In this prospective study, all consecutive patients with resectable periampullary carcinoma and without IGT/DM were evaluated with fasting and postprandial plasma glucose, HbA1c, insulin, and C-peptide levels preoperatively and at 3 mo postoperatively. After that, all patients were followed up with fasting and postprandial plasma glucose level assessed at 3-mo intervals for 24 mo or till death, whichever occurred earlier. The %RV was determined from computed tomography measurements preoperatively.
RESULTS: Of the 50 patients, 11 (22%) patients developed IGT/DM after median follow-up of 32 mo. The patients' with/without IGT/DM were similar in demographic/perioperative variables. The %RV was found to be an independent factor associated with new-onset IGT/DM. A %RV of <48.8% was found to be a predictor of new-onset IGT/DM (sensitivity, 89.7%; specificity, 73.6%). Plasma sugar and glycosylated hemoglobin levels were significantly higher postoperatively after PD than the preoperative levels. Insulin and C-peptide levels were significantly lower after PD, irrespective of new-onset IGT/DM.
CONCLUSIONS: The incidence of IGT/DM after PD was 22%, and %RV < 48.8% was found to be a significant risk factor for new-onset IGT/DM. (CTRI/2013/12/004233).

189: Singh Balhara YP, Jain R, Kuppili PP, Shukla A, Chawla N, Gupta R. Which Criteria to Use to Identify Metabolic Syndrome among Patients with Addictive Disorders?: Observations among Patients with Alcohol and Opioid Dependence Syndrome. Indian J Endocrinol Metab. 2018 Jul-Aug;22(4):565-568. doi: 10.4103/ijem.IJEM_617_17. PubMed PMID: 30148108; PubMed Central PMCID: PMC6085964.

In spite of various psychoactive substances (including tobacco, alcohol, and opioids) being closely associated with development of metabolic syndrome (MS), little research exists on the prevalence of MS among persons with addictive disorders. The criteria used to diagnose MS varied across these studies, and part of the variation in the prevalence rate (5.1%-30.6%) could be attributable to this fact. The current study aimed to assess the prevalence of MS in patients with alcohol dependence syndrome (ADS) and opioid dependence syndrome (ODS) using revised National Cholesterol Education Programme Adult Treatment Panel (NCEP ATP-III) criteria and International Diabetes Federation (IDF) criteria. We tried to assess the impact of the choice of the diagnostic criteria on the prevalence rate of MS in the persons with ADS and ODS. This was a cross-sectional observational study. Semi-structured pro forma was used to collect information on the sociodemographic profile and clinical profile. Anthropometric measurements included waist circumference, height, weight, and body mass index (BMI). The systolic and diastolic blood pressure, fasting blood sugar (FBS), serum triglycerides, and serum high-density lipoprotein were measured. Patients were diagnosed as having MS by using revised NCEP ATP-III and IDF criteria. Statistical analysis was done by Chi-square (Fischer's exact test), independent sample Student's t-test, and Cohen's kappa. Among the individuals with ADS, the prevalence of MS was found to be 20.8% and 9.9% according to revised NCEP ATP III criteria and IDF criteria, respectively. Among individuals with ODS, the prevalence of MS was found to be 20.3% and 5.1% according to revised NCEP ATP III criteria IDF criteria, respectively. While there was a good degree of concordance between IDF and modified NCEP-ATP III criteria for MS for ADS (n = 256) (κ = 0.649, P < 0.001), the concordance was only fair for ODS (κ = 0.333, P < 0.001). The findings of our study thereby support the recommendation that revised NCEP

ATP-III criteria is better choice than IDF criteria for identification of MS in individuals having addictive disorders, especially opioid dependence.

190: Singh G, Kaur M, Dehran M. Management of a case of ventricular bigeminy using central neuraxial blockade. Indian J Anaesth. 2018 Jul;62(7):567-568. doi: 10.4103/ija.IJA_182_18. PubMed PMID: 30078867; PubMed Central PMCID: PMC6053878.

191: Singh GP, Nigam R, Tomar GS, Monisha M, Bhoi SK, S A, Sengar K, Akula D, Panta P, Anindya R. Early and rapid detection of UCHL1 in the serum of brain-trauma patients: a novel gold nanoparticle-based method for diagnosing the severity of brain injury. Analyst. 2018 Jul 9;143(14):3366-3373. doi: 10.1039/c8an00533h. PubMed PMID: 29893758.

The clinical diagnosis of traumatic brain injury (TBI) is based on neurological examination and neuro-imaging tools such as CT scanning and MRI. However, neurological examination at times may be confounded by consumption of alcohol or drugs and neuroimaging facilities may not be available at all centers. Human ubiquitin C-terminal hydrolase (UCHL1) is a well-accepted serum biomarker for severe TBI and can be used to detect the severity of a head injury. A reliable, rapid, cost effective, bedside and easy to perform method for the detection of UCHL1 is a pre-requisite for wide clinical applications of UCHL1 as a TBI biomarker. We developed a rapid detection method for UCHL1 using surface plasmon resonance of gold nanoparticles with a limit of detection (LOD) of 0.5 ng mL-1. It has a sensitivity and specificity of 100% each and meets an analytical precision similar to that of conventional sandwich ELISA but can be performed rapidly. Using this method we successfully detected UCHL1 in a cohort of 66 patients with TBI and were reliably able to distinguish mild TBI from moderate to severe TBI.

192: Singh K, Sazawal S, Chhikara S, Mahapatra M, Saxena R. Association of JAK2V617F mutation with thrombosis in Indian patients with Philadelphia negative chronic myeloproliferative neoplasms. Indian J Pathol Microbiol. 2018 Jul-Sep;61(3):371-374. doi: 10.4103/IJPM.IJPM_781_17. PubMed PMID: 30004057.

Background: : It is still a matter of debate regarding the association of JAK2V617F mutation with thrombosis in BCR-ABL negative CMPN patients. The role of JAK2V617F mutation in increasing the thrombotic risk in CMPNs is yet unequivocal.
Aims: : To clarify the contribution of JAK2V617F mutation in thrombosis in CMPN patients.
Settings and Design: This retrospective study was done to evaluate role of JAK2V617F mutation in thrombosis in CMPNs.
Materials and Methods: 65 CMPN patients (PV, ET and PMF) were analyzed for JAK2V617F mutation using ARMS-PCR and detailed history of thrombosis was recorded in these patients.
Statistical Analysis: P values were 2 tailed, and statistical significance was set at $P < 0.05$.
Results: : 46/65 were males and 19/65 were females [M: F: 2.4:1] with median age 46 years [range, 14-80 years]. Patients had median Hb 15.6 g/dl [range, 5.1-20.3], median TLC 10.7 × 109/l [range 2.4-216] and platelet count 360 × 109/l [range, 20-1859]. 32 were JAK2V617F positive and 33 were negative for this mutation. On comparing the prevalence of thrombosis in JAK2V617F positive patients with JAK2V617F negative patients, we observed that 20/32 (62.5%) JAK2V617F positive patients had thrombosis as compared to 16/33 (48%) in JAK2V617F negative patients ($P = 0.04$). We observed significant association of JAK2V617F mutation with thrombosis, however no association of this mutation with thrombosis was observed among the JAK2V617F negative patients.
Conclusion: Our study suggests that JAK2V617F mutation may increase the risk of thrombosis in CMPNs. This finding could lead to risk stratification, setting up the treatment strategy in CMPNs.

193: Singh K, Crossan C, Laba TL, Roy A, Hayes A, Salam A, Jan S, Lord J, Tandon N, Rodgers A, Patel A, Thom S, Prabhakaran D. Cost-effectiveness of a fixed dose

combination (polypill) in secondary prevention of cardiovascular diseases in India: Within-trial cost-effectiveness analysis of the UMPIRE trial. Int J Cardiol. 2018 Jul 1;262:71-78. doi: 10.1016/j.ijcard.2018.03.082. Epub 2018 Mar 21. PubMed PMID: 29622506.

BACKGROUND: The Use of Multidrug Pill In Reducing cardiovascular Events (UMPIRE) trial, showed that access to a cardiovascular polypill (aspirin, statin and two blood pressure lowering drugs) significantly improved adherence, lowered systolic blood pressure (SBP) and low-density lipoprotein cholesterol (LDLc) in patients with or at high risk of cardiovascular disease (CVD). We aimed to analyze the within-trial cost-effectiveness of the polypill strategy versus usual care in India.
METHODS: Relative effectiveness and costs of polypill versus usual care groups in UMPIRE were estimated from the health sector perspective. Only direct medical costs were considered. The effectiveness of the polypill was reported as a percentage increase in adherence and mean reductions in SBP, and LDL-c, over the 15-month trial period. Healthcare resource utilization and costs were collected for each patient during the trial. Polypill price was constructed using a range of scenarios: $0.06-$0.94/day. The cost-effectiveness of the polypill was measured as the additional cost for 10% increase in adherence, and per unit reduction in SBP and LDL-c.
RESULTS: Overall, the mean cost per patient was significantly lower with the polypill strategy (-$203 per person, (95% CI: -286, -119, $p < 0.01$). In scenario analyses that varied polypill price assumptions, incremental cost-effectiveness ratios for a polypill strategy ranged between cost-saving to $75 per 10% increase in adherence for polypill price of $0.94 per day.
CONCLUSIONS: The polypill strategy was cost-saving compared to usual care among patients with or at high risk of CVD in India.

194: Singh N, Dalal V, Kriplani A, Malhotra N, Mahey R, Perumal V. Empty Follicle Syndrome: A Challenge to Physician. J Hum Reprod Sci. 2018 Jul-Sep;11(3):274-278. doi: 10.4103/jhrs.JHRS_61_17. PubMed PMID: 30568358; PubMed Central PMCID: PMC6262670.

Background: Empty follicle syndrome (EFS) is a condition in which no oocytes are retrieved from normally growing ovarian follicles after ovarian stimulation. It is a rare and frustrating condition of obscure etiology.
Objective: The objective of this study was to estimate the incidence of EFS and study factors related to it.
Design: This was a retrospective study.
Setting: This study was conducted in hospital-based research center.
Methods: In 1968 in vitro fertilization cycles from January 2010 to August 2016 were studied. Agonist, antagonist, and miniflare protocols were used for the stimulation.
Results: The incidence of EFS is 2.38% (47/1968 cycles). Antagonist protocol group (76.59%, n = 36) had highest incidence of EFS (6.69%). Literature on EFS depicts decreased ovarian reserve (DOR) as the main cause, but only 4.25% of patients had DOR in our study. Interestingly, polycystic ovary syndrome and unexplained infertility were found in 31.9% of the cases. Serum anti-Müllerian hormone (AMH) levels (mean ± standard deviation [SD]) were 4.47 ± 3.54 ng/ml, and antral follicle count (AFC) was 15.30 ± 8.07 (mean ± SD) emphasizing that diminished ovarian reserve is not the main factor for EFS. All patients (n = 95) who underwent ovum pickup on day when any patient had EFS were taken as control. Patients with EFS were compared with controls. A statistically significant difference was not observed in serum AMH (P = 0.38) and AFC (P = 0.52).
Conclusion: EFS is an uncommon event. Antagonist cycles have higher chances of empty follicle at ovum pickup. Looking at the profile of patients in this study, we conclude that EFS is not a manifestation of DOR.

195: Singh N, Ray S, Srivastava A. Clinical Mimickers of Amyotrophic Lateral Sclerosis-Conditions We Cannot Afford to Miss. Ann Indian Acad Neurol. 2018 Jul-Sep;21(3):173-178. doi: 10.4103/aian.AIAN_491_17. Review. PubMed PMID:

30258257; PubMed Central PMCID: PMC6137639.

Giving a diagnosis of amyotrophic lateral sclerosis to a patient is akin to handing out a death certificate. However, not all patients presenting with the classical dysphagia, wasting, and weakness may have motor neuron diseases. In these cases, it is extremely important not to miss little cues which can suggest an alternative diagnosis and in many cases a lease of life in terms of a treatment option. In this review, we consider some clinical scenarios that can present with the same symptom complex as diseases involving motor neurons but have a different anatomical or etiopathological basis and in many cases even a therapeutic option.

196: Singh RK, Kumar S, Tomar MS, Verma PK, Singh SP, Gautam PK, Acharya A. Classical Protein Kinase C: a novel kinase target in breast cancer. Clin Transl Oncol. 2019 Mar;21(3):259-267. doi: 10.1007/s12094-018-1929-x. Epub 2018 Jul 30. Review. PubMed PMID: 30062522.

Classical protein kinase C (cPKC) enzymes are ser/thr protein kinases that have been an important factor in regulating a variety of cellular functions required for both in terms of health and disease. Therefore, precise control of cPKC-mediated signal is necessary for cellular homeostasis; however, their dysregulation leads to the development of several pathophysiological conditions including cancer. In cellular microenvironment, cPKC-mediated signaling is accompanied by multiple molecular mechanisms including phosphorylation, second messenger binding, and scaffold proteins. Functional cPKC interacts with a number of cellular proteins involved in the regulation of multiple biological functions such as cell growth, survival, migration, and adhesion. Further, the role of cPKC varies from cell to cell, substrate to substrate and, therefore, it is plausible to assume that the dysregulation of cPKC activity causes cellular transformation. Currently, there is no sufficient literature available to provide better understating to develop an effective therapeutic regimen to reverse pathophysiological condition caused by functionally dysregulated cPKC. Therefore, in the present review, we have focused on to provide a better and detail information on the various aspects of cPKC such as structure, mode of activation, regulation, and distinct cellular functions useful for the development of an effective therapeutic regimen against the breast cancer.

197: Sinha S, Gupta K, Khan NH, Mandal D, Kohli M, Das BK, Pandey RM. Higher Frequency of HIV-1 Drug Resistance and Increased Nucleoside Reverse Transcriptase Inhibitor Mutations among the HIV-1 Positive Antiretroviral Therapy-Naïve patients Coinfected With Mycobacterium tuberculosis Compared With Only HIV Infection in India. Infect Dis (Auckl). 2018 Jul 23;11:1178633718788870. doi: 10.1177/1178633718788870. eCollection 2018. PubMed PMID: 30046244; PubMed Central PMCID: PMC6056791.

Background: Emergence of human immunodeficiency virus (HIV) drug resistance mutations prior to highly active antiretroviral therapy is a serious problem in clinical management of HIV/AIDS. Risk factors for appearance of drug resistance mutations are not known. We hypothesize that Mycobacterium tuberculosis infection may contribute to rapid emergence of such mutations in antiretroviral therapy-naïve patients.
Methods: A total of 115 patients were recruited in this study of which 75 were HIV+TB+ coinfected (group 1) and 40 were HIV+TB- (group 2). Blood samples from all the patients were collected and CD4+ cell counts; HIV-1 plasma viral load and sequencing of protease and two-third region of reverse transcriptase of HIV-1 was performed and analyzed for drug resistance pattern.
Results: For patients with HIV+TB+, 10.6% (8/75) had mutations to non-nucleoside reverse transcriptase inhibitors (NNRTIs), 4% (3/75) to nucleoside reverse transcriptase inhibitors, and only 2.6% (2/75) patients had mutations to protease inhibitors. Interestingly, for group 2 (HIV+TB-), there were only NNRTI mutations found among these patients, and only 3 patients (7.5%) had these drug-resistant mutations. Clade typing and phylogenetic tree analysis showed HIV-1 subtype C

predominance in these patients.
Conclusions: Our study showed that higher percentage of HIV drug resistance mutations was found among HIV+TB+ individuals compared with tuberculosis-uninfected patients. Tuberculosis coinfection may be a risk factor for emergence of high frequency of drug resistance mutations. Studies with a larger sample size will help to confirm these findings from the Indian population.

198: Srinivasan G, Murthy GVS, Mohan S, Mani K, Vashist P, John N, Gupta V, Sihota R. Scanning laser ophthalmoscopy in an elderly Indian population. Ophthalmic Epidemiol. 2018 Oct - Dec;25(5-6):345-350. doi: 10.1080/09286586.2018.1481982. Epub 2018 Jul 17. PubMed PMID: 30015527.

PURPOSE: To study optic nerve head (ONH) characteristics using scanning laser ophthalmoscopy, Heidelberg retina tomograph (HRT), in an elderly population.
METHODS: A population-based, cross-sectional study included 1460 eyes of 1460 consecutive, subjects >60 years, in North India. All subjects underwent a detailed ophthalmic evaluation and imaged on HRT. Stereometric parameters, Moorfields regression analysis (MRA) and discriminant function analysis were analyzed. Correlation between ONH parameters and disc area, age, sex, and intraocular pressure was analyzed.
RESULTS: Disc size had a normal Gaussian distribution (2.22 ± 0.48 mm2), but all other stereometric parameters showed a wide variation. MRA found 1320 (90.4%) eyes within normal limits, 71 (4.86%), borderline limits, and 69 (4.73%) outside normal limits. Comparison of eyes meeting International Society of Geographical and Epidemiological Ophthalmology criteria for a glaucoma suspect, C:D > 0.7, with those that did not show a statistically significant difference in the cup area, rim area, rim disc ratio, and cup volume (p = 0.02, 0.02, 0.02, 0.03, respectively). An Intraocular pressure (IOP) ≥21 mmHg was seen in 3.01%, and only 12 eyes out of 1460, 0.82%, had an IOP ≥21 mmHg and a cup:disc ratio of more than 0.7. A van Herick estimation of < Grade 3 was seen in 19.4% Conclusions: Stereometric parameter data, MRA, and clinical examination in this population at high risk for glaucoma found that about 10% of individuals over 60 years of age could be classified as glaucoma suspects and would need further evaluation.

199: Srivastava AK, Warrier AR. Not to forget: Seizures in acute stroke. Neurol India. 2018 Jul-Aug;66(4):952-954. doi: 10.4103/0028-3886.237006. PubMed PMID: 30038076.

200: Srivastava S, Mahey R, Kachhawa G, Bhatla N, Upadhyay AD, Kriplani A. Comparison of intramyometrial vasopressin plus rectal misoprostol with intramyometrial vasopressin alone to decrease blood loss during laparoscopic myomectomy: Randomized clinical trial. Eur J Obstet Gynecol Reprod Biol. 2018 Sep;228:279-283. doi: 10.1016/j.ejogrb.2018.07.006. Epub 2018 Jul 5. PubMed PMID: 30056355.

OBJECTIVE: To compare the efficacy and safety of intramyometrial vasopressin plus rectal misoprostol with intramyometrial vasopressin alone to reduce blood loss during laparoscopic myomectomy.
STUDY DESIGN: A randomized, single-blind, controlled trial was conducted at All India Institute of Medical Sciences, New Delhi, India. Sixty women with symptomatic leiomyoma scheduled for laparoscopic myomectomy were recruited for the study. Thirty women received intramyometrial vasopressin plus rectal misoprostol (30 min before procedure) (Group I) and 30 women received intramyometrial vasopressin alone (Group II) during laparoscopic myomectomy. The primary outcome measure was intra-operative blood loss during surgery. Secondary outcome measures included decrease in postoperative haemoglobin, ease of enucleation of myomas, duration of surgery, need for additional haemostatic measures or blood transfusion, intra- and postoperative morbidity, and duration of hospital stay.
RESULTS: The baseline demographic features and characteristics of leiomyomas were comparable in both groups. The mean (±standard deviation) blood loss in Group I

was 139 ± 96.7 ml, which was significantly less than that for Group II (206 ± 101.2 ml) (p = 0.008). The mean postoperative haemoglobin was 11.6 ± 1.3 g/dl in Group I and 10.0 ± 1.2 g/dl in Group II (p = 0.001). Although blood loss was not clinically significant in either group, the decrease in haemoglobin was significantly higher in Group II. The mean score for ease of enucleation (surgeon-rated measure) was significantly lower in Group I (2.6 ± 1.1) compared with Group II (3.4 ± 1.1) (p = 0.029). Intra- and postoperative vital signs, duration of surgery, need for blood transfusion and postoperative morbidity were comparable in both groups.
CONCLUSIONS: The addition of rectal misoprostol to intramyometrial vasopressin led to a significant reduction in blood loss and decreased the postoperative drop in haemoglobin. The combination also improved the ease of enucleation of myomas.

201: Swain R, Bakshi MS, Dhaka S, Singh KK, Sikary AK. Self-Strangulation Turning into Partial Hanging for a Suicide Victim. J Forensic Sci. 2018 Jul;63(4):1309-1311. doi: 10.1111/1556-4029.13680. Epub 2017 Oct 30. PubMed PMID: 29084359.

Hanging is the most common asphyxial method of suicide, whereas suicide by strangulation is unusual. Here, we are reporting a particular methodology of the asphyxial method of suicide in which a case of self-strangulation culminated into partial hanging. A 30-year-old male wrapped one end of the cable wire around his neck. He then passed the other end over a curtain rod and tied that end around the right hand. He pulled the hand down, using the curtain rod as a fulcrum, to tighten the noose around the neck in an attempt to strangulate himself. However, he lost consciousness during the process and the body slipped down, pulling the right hand up which got stuck at the curtain rod. This led the body hanged in the kneeling position. This bizarre scenario raised suspicion of homicide but the crime scene, autopsy and victim characteristics were in favor of suicide.

202: Tandon PN. Second career: Life after superannuation. Neurol India. 2018 Jul-Aug;66(4):907-913. doi: 10.4103/0028-3886.236983. PubMed PMID: 30038067.

203: Tarique M, Naz H, Kurra SV, Saini C, Naqvi RA, Rai R, Suhail M, Khanna N, Rao DN, Sharma A. Interleukin-10 Producing Regulatory B Cells Transformed CD4(+)CD25(-) Into Tregs and Enhanced Regulatory T Cells Function in Human Leprosy. Front Immunol. 2018 Jul 23;9:1636. doi: 10.3389/fimmu.2018.01636. eCollection 2018. PubMed PMID: 30083152; PubMed Central PMCID: PMC6065098.

Regulatory B cells (Bregs) are known to exhibit their regulatory functions through interleukin-10 (IL-10) cytokine which suppress inflammation. There are only a few studies explaining the phenotype and functioning of these cells in contribution to host immunity in leprosy. Here, we evaluated the role of IL-10 producing Bregs in the pathogenesis of leprosy and assessed their immunoregulatory effects on Tregs and effector T cells. We found an increased frequency of Bregs and increased expression of their immune modulatory molecules (IL-10, FoxP3, and PDL-1) in leprosy patients. The potential immunoregulatory mechanism of Bregs was also investigated using MACS sorted Teff (CD4+CD25-) and Treg (CD4+CD25+) cells were cocultured with Bregs to elucidate the effects of Bregs on effector T and regulatory T cells. Cell coculture results showed that purified Bregs cells from leprosy patients convert CD4+CD25- cells into CD4+CD25+ cells. Cell coculture experiments also demonstrated that leprosy derived IL-10 producing Bregs enhance FoxP3 and PD-1 expression in Tregs and enhanced Tregs activity. Blocking of IL-10 receptor confirmed that IL-10 producing Breg has immunomodulatory effect on Tregs and effector T cells as effector T cells are not converted into Tregs and enhanced expression of FoxP3 and PD-1 was not observed on Tregs. Collectively, these findings demonstrate that IL-10 producing Breg cells play an important mechanism in controlling the immunopathogenesis of leprosy and have an immunomodulatory effect on Tregs and effector T cells. Our findings may pave way for novel targets of IL-10 producing Bregs for immunotherapy in leprosy patients.

204: Titiyal JS, Falera R, Kaur M, Arora T. Management of late-onset flocculent after-cataract with capsular bag lavage and posterior continuous curvilinear capsulorhexis. Indian J Ophthalmol. 2018 Jul;66(7):984-987. doi: 10.4103/ijo.IJO_1324_17. PubMed PMID: 29941744; PubMed Central PMCID: PMC6032751.

We describe our technique for the management of late-onset liquefied after-cataract (LAC) to ensure long-term visual axis clarity. The densely adherent anterior capsular rim over the intraocular lens (IOL) optic was released with the help of microvitreoretinal blade, and multiple relaxing radial incisions were made on the capsular rim to facilitate easy access to the capsular bag. A thorough capsular bag lavage was performed with the help of bimanual irrigation-aspiration. Posterior continuous curvilinear capsulorhexis (PCCC) was performed after complete aspiration of fluid after-cataract to prevent recurrence. This technique was successfully performed in 14 cases. Postoperatively, IOL was stable and an uncorrected distance visual acuity of >20/32 was achieved in all cases. No recurrence was observed in any case over a follow-up of 1 year. Our technique of capsular bag lavage with PCCC is safe and effective for the management of LAC with optimal visual and anatomical outcomes.

205: Togarsimalemath SK, Si-Mohammed A, Puraswani M, Gupta A, Vabret A, Liguori S, Mariani-Kurkdjian P, Bagga A, Dragon-Durey MA. Gastrointestinal pathogens in anti-FH antibody positive and negative Hemolytic Uremic Syndrome. Pediatr Res. 2018 Jul;84(1):118-124. doi: 10.1038/s41390-018-0009-9. Epub 2018 May 23. PubMed PMID: 29795200.

BACKGROUND: Prodromal symptoms are frequently reported in the atypical form of Hemolytic uremic syndrome (aHUS) suggesting implication of infectious triggers. Some pathogens may also play a role in the mechanisms of production of autoantibody directed against Factor H (FH), a complement regulator, leading to aHUS.
METHODS: The presence of 15 gastrointestinal (GI) pathogens was investigated by using xTAG-based multiplex PCR techniques on stools collected at the acute phase in a cohort of Indian HUS children classified according to the presence or absence of anti-FH autoantibodies.
RESULTS: Prevalence of pathogens in patients with anti-FH antibody (62.5%) was twice that in those without (31.5%). Different pathogens were detected, the most frequent being Clostridium difficile, Giardia intestinalis, Salmonella, Shigella, Rotavirus, Norovirus and Entamoeba histolytica. No stool was positive for Shigatoxin.
CONCLUSION: This study reveals a higher prevalence of GI pathogens in anti-FH positive than in negative patients. No single pathogen was implicated exclusively in one form of HUS. These pathogens may play a role in the disease initiation by inducing complement activation or an autoimmune response.

206: Tripathy K, Chawla R, Wadekar BR, Venkatesh P, Sharma YR. Evaluation of rhegmatogenous retinal detachments using Optos ultrawide field fundus fluorescein angiography and comparison with ETDRS 7 field overlay. J Curr Ophthalmol. 2018 Jul 3;30(3):263-267. doi: 10.1016/j.joco.2018.06.006. eCollection 2018 Sep. PubMed PMID: 30197958; PubMed Central PMCID: PMC6127357.

Purpose: To evaluate the ultrawide field fundus fluorescein angiography (UWFA) characteristics of rhegmatogenous retinal detachments (RRDs) and compare the findings with an early treatment diabetic retinopathy study (ETDRS) 7 field (ETDRS7F) overlay.
Methods: UWFA (Optos, PLC, Dunfermline, UK) was performed in 10 eyes with macula-off RRDs in 9 patients. The findings of UWFA were compared with that of an overlay of standard ETDRS7F.
Results: Vascular dilation, tortuosity of vessels, and blockage of choroidal fluorescence were noted in all eyes in both UWFA and ETDRS7F overlay. Other findings in UWFA and ETDRS7F included peripheral perivascular staining (10 versus 4 eyes), peripheral capillary nonperfusion (CNP) (9 eyes compared to none),

vascular loop formation (7 eyes versus none), optic disc hyperfluorescence (5 eyes in both), petaloid leak at macula (2 eyes in both), and neovascularization elsewhere (3 eyes versus none).
Conclusions: Peripheral perivascular staining and leak, CNP, and vascular tortuosity are common UWFA features of RRDs. Standard ETDRS7F missed peripheral CNP, peripheral vascular loops, and peripheral retinal new vessels in all eyes compared to UWFA in the current study.

207: Tripathy SK, Aggarwal B, Mandal A, Bagri NK. Atypical Kawasaki disease: Diagnosis underneath diapers. J Postgrad Med. 2018 Jul-Sep;64(3):190-191. doi: 10.4103/jpgm.JPGM_201_18. PubMed PMID: 29992915; PubMed Central PMCID: PMC6066622.

208: Tyagi A, Pramanik R, Vishnubhatla S, Ali S, Bakhshi R, Chopra A, Singh A, Bakhshi S. Pattern of mitochondrial D-loop variations and their relation with mitochondrial encoded genes in pediatric acute myeloid leukemia. Mutat Res. 2018 Jul;810:13-18. doi: 10.1016/j.mrfmmm.2018.05.002. Epub 2018 May 24. PubMed PMID: 29883862.
Role of mitochondrial DNA variations, particularly in D loop region, remains investigational in acute myeloid leukaemia (AML). Consecutive 151 pediatric AML patients were prospectively enrolled from June 2013 to August 2016, for evaluating pattern of variations in mitochondrial D-loop region and to determine their association, if any, with expression of mitochondrial-encoded genes. For each patient, D-loop region was sequenced on baseline bone marrow, buccal swab and mother's blood sample. Real time PCR was used for relative gene expression of four mitochondrial DNA encoded genes viz.
Nicotinamide-adenine-dineucleotide-dehydrogenase subunit 3 (ND3), Cytochrome-B (Cyt-B), Cytochrome c oxidase-I (COX1) and ATP-synthetase F0 subunit-6 (ATP6). Total 1490 variations were found at 237 positions in D-Loop; 1206 (80.9%) were germline and 284 (19.1%) were somatic. Positions 73-263 were identified as a probable hotspot region. G bases appeared to be most stable nucleotide (least number of single base substitutions) whereas T appeared to be most susceptible to variations with germline T-C being the commonest. Gene expression of Cyt-B was found to be significantly higher for any variation (somatic or germline) at positions 16,192 and 16,327 while it was significantly lower for variations at positions 16,051 and 207. Any variation at positions 152, 207 and 513 significantly decreased COX1 expression while those at positions 16,051 and 152 attenuated ATP6 expression. This first study evaluated type and overall pattern of D-loop variations in AML, and also showed that some of these variations in D loop region might have an effect on the mitochondrial-encoded genes which is new and valuable information in AML genomics.

209: Vanathi M. Advances in Cornea. Open Ophthalmol J. 2018 Jul 23;12:130-133. doi: 10.2174/1874364101812010130. eCollection 2018. PubMed PMID: 30123377; PubMed Central PMCID: PMC6062899.

210: Vashist A, Kaushik A, Vashist A, Bala J, Nikkhah-Moshaie R, Sagar V, Nair M. Nanogels as potential drug nanocarriers for CNS drug delivery. Drug Discov Today. 2018 Jul;23(7):1436-1443. doi: 10.1016/j.drudis.2018.05.018. Epub 2018 May 20. Review. PubMed PMID: 29775669.

Hydrogel-based drug delivery systems (DDSs) have versatile applications such, as tissue engineering, scaffolds, drug delivery, and regenerative medicines. The drawback of higher size and poor stability in such DDSs are being addressed by developing nano-sized hydrogel particles, known as nanogels, to achieve the desired biocompatibility and encapsulation efficiency for better efficacy than conventional bulk hydrogels. In this review, we describe advances in the development of nanogels and their promotion as nanocarriers to deliver therapeutic agents to the central nervous system (CNS). We also discuss the challenges, possible solutions, and future prospects for the use of nanogel-based DDSs for CNS therapies.

211: Verma KK, Zimerson E, Bruze M, Engfeldt M, Svedman C, Isaksson M. Is a high concentration of hexavalent chromium in Indian cement causing an increase in the frequency of cement dermatitis in India? Contact Dermatitis. 2018 Jul;79(1):49-51. doi: 10.1111/cod.12986. Epub 2018 Mar 15. PubMed PMID: 29542124.

212: Verma R, Kumar N, Kumar S. Effectiveness of adjunctive repetitive transcranial magnetic stimulation in management of treatment-resistant depression: A retrospective analysis. Indian J Psychiatry. 2018 Jul-Sep;60(3):329-333. doi: 10.4103/psychiatry.IndianJPsychiatry_182_16. PubMed PMID: 30405260; PubMed Central PMCID: PMC6201665.

Background: There is limited number of studies from India investigating role of repetitive transcranial magnetic stimulation (rTMS) in treatment-resistant depression (TRD). This clinic-based study reports on the efficacy of rTMS as an add-on treatment in patients suffering from TRD.
Materials and Methods: Twenty-two right-handed patients suffering from major depressive disorder who failed to respond to adequate trials of at least two antidepressants drugs in the current episode received rTMS as an augmenting treatment. High-frequency (Hf) rTMS at 110% of the estimated resting motor threshold (MT) was given over the left dorsolateral prefrontal cortex (DLPFC). A total of 15 sessions were given over 3 weeks with 3000 pulses per session. The outcome was assessed based on the changes in scores of Hamilton Rating Scale for Depression or Montgomery-Asberg Depression Rating Scale.
Results: There was a significant reduction in final assessment scores after rTMS intervention as compared to baseline with almost 50% of the participants showing response in either scale.
Conclusion: Hf rTMS applied over left DLPFC is an effective add-on treatment strategy in patients with TRD.

213: Verma R, Kumar N, Kuppili PP. Repetitive Transcranial Magnetic Stimulation: The Magic Bullet for Managing Treatment-Resistant Obsessive-Compulsive Disorder in a Congenitally Deaf and Mute Woman. Prim Care Companion CNS Disord. 2018 Jul 5;20(4). pii: 17l02199. doi: 10.4088/PCC.17l02199. PubMed PMID: 29995360.

214: Vijayakumar V, Mavathur R, Aruchunan M, Nandi Krishnamurthy M. Moving beyond HbA1c and plasma glucose levels to understand glycemic status in type 2 diabetes mellitus. J Diabetes. 2018 Jul;10(7):609-610. doi: 10.1111/1753-0407.12649. Epub 2018 Mar 12. PubMed PMID: 29437298.

215: Vikram NK. Cardiovascular and Metabolic Complications - Diagnosis and Management in Obese Children. Indian J Pediatr. 2018 Jul;85(7):535-545. doi: 10.1007/s12098-017-2504-0. Epub 2017 Dec 8. Review. PubMed PMID: 29218646.

The world at present is facing a burden of rising prevalence of obesity in children and adolescents. The developing countries are particularly facing the dual burden on under-nutrition and obesity. This is associated with appearance and clustering of cardiometabolic abnormalities at an early age with development of chronic complications early and possible decrease in life span of these children and adolescents. In adults this clustering has been termed as 'metabolic syndrome' with definitions that can be used universally. However, in children and adolescents there is no consensus on a uniform definition of metabolic syndrome that can be applicable across the age groups and various ethnicities. Further, as childhood is a period of growth and development, changes in body composition and insulin sensitivity that occur with puberty may influence the thresholds of components used to define metabolic syndrome. Children of South Asian ethnicity appear to be more predisposed to develop abnormalities of metabolic syndrome, possible due to their adverse body fat patterning and genetic influences. The definition of pediatric metabolic syndrome proposed by International Diabetes Federation is useful across different ethnicities. Presence of at least one component of metabolic syndrome should lead to detailed screening for other components and complications. A multimodality approach including therapeutic lifestyle changes targeted at the individual, family and community is essential

for management. Pharmacotherapy for individual components may be required if initial management strategies fail to achieve the goals.

216: White SM, Altermatt F, Barry J, Ben-David B, Coburn M, Coluzzi F, Degoli M, Dillane D, Foss NB, Gelmanas A, Griffiths R, Karpetas G, Kim JH, Kluger M, Lau PW, Matot I, McBrien M, McManus S, Montoya-Pelaez LF, Moppett IK, Parker M, Porrill O, Sanders RD, Shelton C, Sieber F, Trikha A, Xuebing X. International Fragility Fracture Network Delphi consensus statement on the principles of anaesthesia for patients with hip fracture. Anaesthesia. 2018 Jul;73(7):863-874. doi: 10.1111/anae.14225. Epub 2018 Mar 6. PubMed PMID: 29508382.

217: Yadav D, Agarwal S, Sharma A, Malik E, Kandasamy D, Thakar A, Yadav R, Barward A, Kini L. Synovial sarcoma masquerading as medullary thyroid carcinoma. Cytopathology. 2018 Oct;29(5):468-470. doi: 10.1111/cyt.12582. Epub 2018 Jul 18. PubMed PMID: 29873853.

218: Yadav R, Yadav RK, Khadgawat R, Pandey RM. Comparative efficacy of a 12 week yoga-based lifestyle intervention and dietary intervention on adipokines, inflammation, and oxidative stress in adults with metabolic syndrome: a randomized controlled trial. Transl Behav Med. 2018 Jul 17. doi: 10.1093/tbm/iby060. [Epub ahead of print] PubMed PMID: 30020512.

The present randomized controlled trial (RCT) evaluated the comparative efficacy of 12 week yoga-based lifestyle intervention (YBLI) and dietary intervention (DI) alone on adipokines, inflammation, and oxidative stress in Indian adults with metabolic syndrome (Met S). A parallel, two arm, RCT was conducted in Integral Health Clinic (IHC), All India Institute of Medical Sciences, India from 2012 to 2014. IHC is an outpatient facility conducting YBLI programs for prevention and management of chronic diseases. Two hundred sixty men and women (20-45 years) visiting the outpatient department of a tertiary care hospital were diagnosed with Met S and randomized 1:1 to receive 12 week YBLI (n = 130) or DI (n = 130). Primary outcomes were change in plasma levels of adipokines (leptin, adiponectin, and leptin:adiponectin ratio), markers of inflammation (tumor necrosis factor [TNF]-α, interleukin [IL]-6), markers of oxidative stress (thiobarbituric acid reactive substances [TBARS], 8-hydroxy-2'-deoxyguanosine [8-OHdG], and superoxide dismutase [SOD]) measured at baseline, 2 weeks, and 12 weeks. YBLI group showed a significant decrease in leptin, leptin:adiponectin ratio, IL-6, 8-OHdG, and TBARS levels, whereas there was a significant increase in adiponectin and SOD levels. No significant changes were noticed in DI alone group. YBLI showed significantly greater reduction in TBARS levels than in DI group, suggestive of reduced oxidative stress in adults with Met S. A 12 week YBLI had a positive impact on oxidative stress versus DI alone in adults with Met S.

219: Zenteno M, Lee A, Satyarthee GD, Moscote-Salazar LR. Endovascular Management of Intracranial Pial Arteriovenous Fistulas: Experience of Largest Series at a Single Center Over Six Years. J Neurosci Rural Pract. 2018 Jul-Sep;9(3):406-409. doi: 10.4103/jnrp.jnrp_455_17. PubMed PMID: 30069100; PubMed Central PMCID: PMC6050784.

Introduction: Intracranial pial fistulas are an extremely uncommon type of vascular pathology consisting of one or multiple arterial connections to a single venous drainage channel without the presence of an intervening nidus. Due to its typical location and high-flow dynamics, its management is difficult and options include endovascular treatment and open surgical treatment. The arterial supply of these lesions is usually derived from pial or cortical vessels, and commonly such lesions are not localized in the dura mater.
Materials and Methods: Authors report the experience of consecutive ten cases managed at the Instituto Nacional de Neurología y Neurocirugía "Manuel Velasco Suárez" of México extending from 2007 to 2012 with endovascular technique, constituting one of the largest series in the Western literature.
Discussion: Pial fistulas are associated with a poor natural history, and the

selection of individualized therapeutic strategies can provide good outcomes. Conclusion: The neuroendovascular intervention is currently considered as safe, low cost, and effective management modality for such lesions.