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

1: Aggarwal A, Garg K, Gulati P. Letter to the Editor Regarding "Optic Nerve Meningioma Mimicking Cavernous Hemangioma". World Neurosurg. 2018 Mar;111:435. doi: 10.1016/j.wneu.2017.12.083. PubMed PMID: 29499604.

2: Aggarwal B, Gupta N. Familial Hypercholesterolemia: Nip the Evil in the Bud. Indian J Pediatr. 2018 May;85(5):331-332. doi: 10.1007/s12098-018-2664-6. Epub 2018 Mar 29. PubMed PMID: 29594955.

3: Akhtar N, Verma KK, Sharma A. Immunogenetics of cytokine genes in parthenium dermatitis: a review. Eur Ann Allergy Clin Immunol. 2018 Mar;50(2):59-65. doi: 10.23822/EurAnnACI.1764-1489.40. Epub 2017 Nov 27. Review. PubMed PMID: 29384111.

Summary: Parthenium dermatitis is a chronic immuno-inflammatory, distressing skin disease and is mediated by activated T-lymphocyte which is primarily manifested on the exposed sites of the face, neck, hand and flexures. Parthenium hysterophorus is ubiquitous, hence it is diffi-cult to avoid the aero-allergenic antigen parthenin, responsible for the contact dermatitis. The pathogenesis of parthenium dermatitis is characterized by infiltration of T-lymphocytes into challenged skin sites and the development of a cutaneous inflammation due to altered regulatory network of pro and anti-inflammatory cytokines. Regulation of inflammatory events perpetuated by cytokines continues to complicate efforts to analyze both the function of individual cytokine and the influence of candidate gene polymorphism on expression and disease severity. The genetic polymorphisms in these cytokines are significantly affecting immunological parameters and, subsequently, modulation and polarization of immune responses. This review has focused mainly on understanding of the mechanisms of genetic susceptibility of cytokine genes in this disease and, further, this process is likely to achieve significant advances in the diagnosis and management of parthenium dermatitis.

DOI: 10.23822/EurAnnACI.1764-1489.40
PMID: 29384111

4: Albert V, Subramanian A, Trikha V, Veerappan SK, Jothi A. Acute coagulofibrinolytic and inflammatory changes in response to intramedullary nailing and its impact on outcome. J Clin Orthop Trauma. 2018 Mar;9(Suppl 1):S67-S73. doi: 10.1016/j.jcot.2018.01.003. Epub 2018 Jan 5. PubMed PMID: 29628702; PubMed Central PMCID: PMC5883903.

5: Badhwar S, Chandran DS, Jaryal AK, Narang R, Deepak KK. Regional arterial stiffness in central and peripheral arteries is differentially related to endothelial dysfunction assessed by brachial flow-mediated dilation in metabolic syndrome. Diab Vasc Dis Res. 2018 Mar;15(2):106-113. doi: 10.1177/1479164117748840. Epub 2017 Dec 28. PubMed PMID: 29283006.

The interrelationship between endothelial function and arterial stiffness may be different for central and peripheral arteries due to their structural and functional differences. The study aims to assess the interrelationship between central and peripheral vascular function and haemodynamics in metabolic syndrome. Thirty-seven patients [63.0 (57.5-66.0) years, 68.4% males] of metabolic syndrome (National Cholesterol Education Program - Adult Treatment Panel-III criteria) were studied. Carotid-femoral, carotid-radial pulse wave velocity and augmentation index (AIx@75) were assessed using applanation tonometry. Endothelial function was evaluated by brachial flow-mediated dilation using B-mode ultrasonography. Central and peripheral pressures were measured by radial tonometry and sphygmomanometer, respectively. Carotid-radial pulse wave velocity correlated significantly with peripheral diastolic blood pressure ($r=0.33$, $p=0.04$) and inversely with flow-mediated dilation ($r=-0.61$, $p=0.0001$). AIx@75 correlated significantly with carotid-femoral pulse wave velocity ($r=0.35$, $p=0.03$) and with aortic pulse pressure ($r=0.43$, $p=0.01$). In principal component analysis, an inverse relationship was observed between flow-mediated dilation and carotid-radial pulse wave velocity but not with carotid-femoral pulse wave velocity. Regional arterial stiffness assessed by

pulse wave velocity in central-elastic and peripheral-muscular arteries differentially relates to endothelial dysfunction. The central arteries might be predominantly influenced by endothelial dysfunction-induced structural changes, while the peripheral arteries are majorly affected by functional alterations.

DOI: 10.1177/1479164117748840
PMID: 29283006

6: Bajaj J, Tripathi M, Dwivedi R, Sapra S, Gulati S, Garg A, Tripathi M, Bal CS, Chandra SP. Does surgery help in reducing stigma associated with drug refractory epilepsy in children? Epilepsy Behav. 2018 Mar;80:197-201. doi: 10.1016/j.yebeh.2018.01.010. Epub 2018 Feb 3. PubMed PMID: 29414552.

INTRODUCTION: Epilepsy has several comorbidities and associated stigma. Stigma associated with epilepsy is well known and prevalent worldwide. Surgical treatment is an established treatment for drug refractory epilepsy. Following surgery in children, it is possible that the stigma may reduce, but such an effect has not been studied earlier.
MATERIALS AND METHODS: Analysis of prospectively collected data was performed for pediatric patients at a single tertiary center for treating epilepsy. Child stigma scale, as described by Austin et al., was used to evaluate stigma both pre- and postoperatively. Analysis was done using Paired t test.
RESULTS: In this study, following surgery, there was significant reduction of stigma ($P<0.001$). This was proportional to the reduction in seizures, though there were 9 (30%) patients, who due to persistent neurodisability did not have any reduction of stigma despite having good seizure outcome.
CONCLUSION: Surgery in drug-resistant epilepsy helps in reducing stigma. Seizure reduction is probably not the only factor responsible for a change in stigma outcome.

DOI: 10.1016/j.yebeh.2018.01.010
PMID: 29414552

7: Balhara YPS, Bhargava R, Pakhre A, Bhati N. The "Blue Whale Challenge"?: The first report on a consultation from a health care setting for carrying out "tasks" accessed through a mobile phone application. Asia Pac Psychiatry. 2018 Mar 13. doi: 10.1111/appy.12317. [Epub ahead of print] PubMed PMID: 29532627.

8: Bandivadekar P, Agarwal T, Temkar S. Shave Excision With Keratopigmentation for Limbal Dermoid. Eye Contact Lens. 2018 Mar;44(2):e7-e9. doi: 10.1097/ICL.0000000000000257. PubMed PMID: 27058832.

OBJECTIVES: To describe a modified technique of corneal tattooing for concomitant cosmetic rehabilitation in eyes with limbal dermoid.
STUDY: Case series.
METHODS: Three patients between 12 and 20 years of age with grade I limbal dermoid underwent shave excision with corneal tattooing. All patients had dark brown irides. Chemical keratopigmentation was performed over the bed using 2% gold chloride with 1% hydrazine hydrate as reducing agent to yield a dark brown color. Bandage contact lens was applied.
RESULTS: Epithelium over the operated area healed by day 10. Visual acuity was maintained in all eyes with minimal change in keratometry. The dye was well retained in the tattooed area at 1 year. No complications such as infection, pseudopterygium, or local limbal stem-cell deficiency were observed.
CONCLUSION: Corneal tattooing along with simple shave excision provides good cosmetic results in cases of limbal dermoids.

DOI: 10.1097/ICL.0000000000000257
PMID: 27058832 [Indexed for MEDLINE]

9: Baranwal AK, Goswami S, Bhat DK, Kaur G, Agarwal SK, Mehra NK. Soluble Major Histocompatibility Complex Class I related Chain A (sMICA) levels influence graft outcome following Renal Transplantation. Hum Immunol. 2018 Mar;79(3):160-165. doi: 10.1016/j.humimm.2018.01.001. Epub 2018 Jan 9. PubMed PMID: 29330111.

BACKGROUND: Since soluble isoforms of MICA play an important role in modulating the immune response, we evaluated a possible correlation between their levels and development of acute rejection following renal transplantation.
METHODS: Serum samples collected at pre- and different time points post-transplant from 137 live related donor renal transplant recipients were evaluated retrospectively for sMICA levels and for the presence of MICA antibodies. Samples from 30 healthy volunteers were also tested as controls.
RESULTS: Significantly higher levels of sMICA were observed in the pretransplant sera of allograft recipients as compared to healthy controls. Patients with acute cellular rejection experienced a significant fall in their levels at the time of diagnosis as compared to their pretransplant values and posttransplant follow up time points (p=.01, .003, .005 and .04 respectively at pre vs biopsy (Bx), POD7 vs Bx, POD 30 vs Bx, POD 90 vs Bx). However, no such difference was noted in patients undergoing antibody mediated rejection. Further the study did not reveal any correlation on the presence/absence of MICA antibodies with either an increase or decrease in sMICA levels.
CONCLUSIONS: Estimating circulating levels of soluble MICA could provide useful information of prognostic importance in assessing graft outcome following renal transplantation.

DOI: 10.1016/j.humimm.2018.01.001
PMID: 29330111

10: Behari M. Movement disorders: The genesis and progression in India: Neurological perspective. Neurol India. 2018 Mar-Apr;66(Supplement):S3-S4. doi: 10.4103/0028-3886.226452. PubMed PMID: 29503320.

11: Bhadada SK, Arya AK, Mukhopadhyay S, Khadgawat R, Sukumar S, Lodha S, Singh DN, Sathya A, Singh P, Bhansali A. Primary hyperparathyroidism: insights from the Indian PHPT registry. J Bone Miner Metab. 2018 Mar;36(2):238-245. doi: 10.1007/s00774-017-0833-8. Epub 2017 Mar 31. PubMed PMID: 28364324.

The presentation of primary hyperparathyroidism (PHPT) is variable throughout the world. The present study explored retrospective data submitted to the Indian PHPT registry (http://www.indianphptregistry.com) between July 2005 and June 2015 from 5 centres covering four different geographical regions. The clinical, biochemical, radiological and histopathological characteristics of PHPT patients across India were analysed for similarity and variability across the centres. A total of 464 subjects (137 men and 327 women) with histopathologically proven PHPT were analysed. The mean age was 41 ± 14 years with a female:male ratio of 2.4:1. The majority (95%) of patients were symptomatic. Common clinical manifestations among all the centres were weakness and fatigability (58.7%), bone pain (56%), renal stone disease (31%), pancreatitis (12.3%) and gallstone disease (11%). Mean serum calcium, parathyroid hormone and inorganic phosphorus levels were 11.9 ± 1.6 mg/dL, 752.4 ± 735.2 pg/mL and 2.8 ± 0.9 mg/dL, respectively. Sestamibi scanning had better sensitivity than ultrasonography in the localisation of parathyroid adenoma; however, when these two modalities were combined, 93% of the cases were correctly localised. Mean parathyroid adenoma weight was 5.6 ± 6.5 g (0.1-54 g). It was concluded that the majority of PHPT patients within India are still mainly symptomatic with >50% of patients presenting with bone disease and one-third with renal impairment. Compared to Western countries, Indian patients with PHPT are younger, biochemical abnormalities are more severe, and adenoma weight is higher. As our observation is largely derived from a tertiary care hospital (no routine screening of serum calcium level), the results do not reflect racial differences in susceptibility

to PHPT.

DOI: 10.1007/s00774-017-0833-8
PMID: 28364324 [Indexed for MEDLINE]

12: Bhargava A, Tamrakar S, Aglawe A, Lad H, Srivastava RK, Mishra DK, Tiwari R, Chaudhury K, Goryacheva IY, Mishra PK. Ultrafine particulate matter impairs mitochondrial redox homeostasis and activates phosphatidylinositol 3-kinase mediated DNA damage responses in lymphocytes. Environ Pollut. 2018 Mar;234:406-419. doi: 10.1016/j.envpol.2017.11.093. Epub 2017 Dec 1. PubMed PMID: 29202419.

Particulate matter (PM), broadly defined as coarse (2.5-10 μm), fine (0.1-2.5 μm) and ultrafine particles (≤0.1 μm), is a major constituent of ambient air pollution. Recent studies have linked PM exposure (coarse and fine particles) with several human diseases including cancer. However, the molecular mechanisms underlying ultrafine PM exposure induced cellular and sub-cellular repercussions are ill-defined. Since mitochondria are one of the major targets of different environmental pollutants, we herein aimed to understand the molecular repercussion of ultrafine PM exposure on mitochondrial machinery in peripheral blood lymphocytes. Upon comparative analysis, a significantly higher DCF fluorescence was observed in ultrafine PM exposed cells that confirmed the strong pro-oxidant nature of these particles. In addition, the depleted activity of antioxidant enzymes, glutathione reductase and superoxide dismutase suggested the strong association of ultrafine PM with oxidative stress. These results further coincided with mitochondrial membrane depolarization, altered mitochondrial respiratory chain enzyme activity and decline in mtDNA copy number. Moreover, the higher accumulation of DNA damage response proteins (γH2AX, pATM, p-p53), suggested that exposure to ultrafine PM induces DNA damage and triggers phosphatidylinositol 3 kinase mediated response pathway. Further, the alterations in mitochondrial machinery and redox balance among ultrafine PM exposed cells were accompanied by a considerably elevated pro-inflammatory cytokine response. Interestingly, the lower apoptosis levels observed in ultrafine particle treated cells suggest the possibility that the marked alterations may lead to the impairment of mitochondrial-nuclear cross talk. Together, our results showed that ultrafine PM, because of their smaller size possesses significant ability to disturb mitochondrial redox homeostasis and activates phosphatidylinositol 3 kinase mediated DNA damage response pathway, an unknown molecular paradigm of ultrafine PM exposure. Our findings also indicate that maneuvering through the mitochondrial function might be a viable, indirect method to modulate lymphocyte homeostasis in air pollution associated immune disorders.

DOI: 10.1016/j.envpol.2017.11.093
PMID: 29202419 [Indexed for MEDLINE]

13: Bhatla N, Nene BM, Joshi S, Esmy PO, Poli URR, Joshi G, Verma Y, Zomawia E, Pimple S, Prabhu PR, Basu P, Muwonge R, Hingmire S, Sauvaget C, Lucas E, Pawlita M, Gheit T, Jayant K, Malvi SG, Siddiqi M, Michel A, Butt J, Sankaran S, Kannan TPRA, Varghese R, Divate U, Willhauck-Fleckenstein M, Waterboer T, MÃ¼ller M, Sehr P, Kriplani A, Mishra G, Jadhav R, Thorat R, Tommasino M, Pillai MR, Sankaranarayanan R; Indian HPV vaccine study group. Are two doses of human papillomavirus vaccine sufficient for girls aged 15-18 years? Results from a cohort study in India. Papillomavirus Res. 2018 Jun;5:163-171. doi: 10.1016/j.pvr.2018.03.008. Epub 2018 Mar 22. PubMed PMID: 29578097; PubMed Central PMCID: PMC6047463.

Extending two-dose recommendations of HPV vaccine to girls between 15 and 18 years will reduce program cost and improve compliance. Immunogenicity and vaccine targeted HPV infection outcomes were compared between 1795 girls aged 15-18 years receiving two (1-180 days) and 1515 girls of same age receiving three (1-60-180

days) doses. Immunogenicity outcomes in 15-18 year old two-dose recipients were also compared with the 10-14 year old three-dose (N = 2833) and two-dose (N = 3184) recipients. The 15-18 year old two-dose recipients had non-inferior L1-binding antibody titres at seven months against vaccine-targeted HPV types compared to three-dose recipients at 15-18 years and three-dose recipients at 10-14 years of age. Neutralizing antibody titres at 18 months in 15-18 year old two-dose recipients were non-inferior to same age three-dose recipients for all except HPV 18. The titres were inferior to those in the 10-14 year old three-dose recipients for all targeted types. Frequency of incident infections from vaccine-targeted HPV types in the 15-18 year old two-dose recipients was similar to the three dose recipients. None of the girls receiving two or three doses had persistent infection from vaccine-targeted types. These findings support that two doses of HPV vaccine can be extended to girls aged 15-18 years.

DOI: 10.1016/j.pvr.2018.03.008
PMCID: PMC6047463
PMID: 29578097

14: 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.

DOI: 10.1007/s00264-018-3878-y
PMID: 29552689

15: Bhattacharjee S, Maitra S, Baidya DK. Comparison between ultrasound guided technique and digital palpation technique for radial artery cannulation in adult patients: An updated meta-analysis of randomized controlled trials. J Clin Anesth. 2018 Jun;47:54-59. doi: 10.1016/j.jclinane.2018.03.019. Epub 2018 Mar 22. PubMed PMID: 29574288.

STUDY OBJECTIVE: Possible advantages and risks associated with ultrasound guided radial artery cannulation in-comparison to digital palpation guided method in adult patients are not fully known. We have compared ultrasound guided radial artery cannulation with digital palpation technique in this meta-analysis.
DESIGN: Meta-analysis of randomized controlled trials.
SETTING: Trials conducted in operating room, emergency department, cardiac catheterization laboratory.
PATIENTS: PubMed and Cochrane Central Register of Controlled Trials (CENTRAL) were searched (from 1946 to 20th November 2017) to identify prospective randomized controlled trials in adult patients.
INTERVENTION: Two-dimensional ultrasound guided radial artery catheterization versus digital palpation guided radial artery cannulation.
MEASUREMENTS: Overall cannulation success rate, first attempt success rate, time to cannulation and mean number of attempts to successful cannulation. Odds ratio (OR) and standardized mean difference (SMD) or mean difference (MD) with 95% confidence interval (CI) were calculated for categorical and continuous variables respectively.
RESULTS: Data of 1895 patients from 10 studies have been included in this meta-analysis. Overall cannulation success rate was similar between ultrasound guided technique and digital palpation [OR (95% CI) 2.01 (1.00, 4.06); p = 0.05]. Ultrasound guided radial artery cannulation is associated with higher first attempt success rate of radial artery cannulation in comparison to digital palpation [OR (95% CI) 2.76 (186, 4.10); p < 0.001]. No difference was seen in time to cannulate [SMD (95% CI) -0.31 (-0.65, 0.04); p = 0.30] and mean number of attempt [MD (95% CI) -0.65 (-1.32, 0.02); p = 0.06] between USG guided technique with palpation technique.
CONCLUSION: Radial artery cannulation by ultrasound guidance may increase the first attempt success rate but not the overall cannulation success when compared to digital palpation technique. However, results of this meta-analysis should be interpreted with caution due presence of heterogeneity.

DOI: 10.1016/j.jclinane.2018.03.019
PMID: 29574288

16: Bhattacharjee S, Maitra S, Baidya DK. A comparison between video laryngoscopy and direct laryngoscopy for endotracheal intubation in the emergency department: A meta-analysis of randomized controlled trials. J Clin Anesth. 2018 Jun;47:21-26. doi: 10.1016/j.jclinane.2018.03.006. Epub 2018 Mar 14. PubMed PMID: 29549828.

STUDY OBJECTIVES: Direct laryngoscopy is the most commonly used modality for endotracheal intubation in the emergency department. Video laryngoscopy may improve glottic view during laryngoscopy and intubation success rate in such patients. This meta-analysis has been designed to compare clinical efficacy of video laryngoscopy with direct laryngoscopy for endotracheal intubation in the emergency department.
DESIGN: Meta-analysis of randomized controlled trial.
SETTING: Randomized controlled trials comparing video laryngoscopy and direct laryngoscopy for endotracheal intubation in adult patients in emergency department. PubMed (1946 to 20th October 2017) and The Cochrane Library databases (CENTRAL) were searched for potentially eligible trials on 20th October 2017.
PATIENTS: Adult patients presenting in the emergency department.
INTERVENTIONS: Video laryngoscopy & direct laryngoscopy for intubation in emergency department.
MEASUREMENT: Primary outcome was 'first intubation success rate' and secondary outcomes were overall intubation success rate, in-hospital mortality and oesophageal intubation rate.
MAIN RESULTS: Data of 1250 patients from 5 randomized controlled trials have been included in this study. Video laryngoscopy offers no advantage over direct

laryngoscopy in terms of first intubation success rate (odds ratio 1.28, 95% CI 0.70, 2.36; p = 0.42), overall intubation success rate (OR 1.26, 95% CI 0.53, 3.01; p = 0.6) or in-hospital mortality (OR 1.25, 95% CI 0.8, 1.95; p = 0.32). However, oesophageal intubation rate is lower with the use of video laryngoscopy (OR 0.09, 95% CI 0.01, 0.7; p = 0.02).
CONCLUSION: Use of video laryngoscopy for emergency endotracheal intubation in adult patients is associated with reduced oesophageal intubation over direct laryngoscopy. However, no benefit was found in terms of overall intubation success.

DOI: 10.1016/j.jclinane.2018.03.006
PMID: 29549828

17: Bijalwan A, Patel BP, Marieswaran M, Kalyanasundaram D. Volumetric locking free 3D finite element for modelling of anisotropic visco-hyperelastic behaviour of anterior cruciate ligament. J Biomech. 2018 May 17;73:1-8. doi: 10.1016/j.jbiomech.2018.03.016. Epub 2018 Mar 16. PubMed PMID: 29599040.

Solids such as polymers, soft biological tissues display visco-hyperelastic, isochoric and finite deformation behaviour. The incompressibility constraint imposed severe restriction on the displacement field results in volumetric locking. Many techniques have been developed to address the issue such as reduced integration, mixed formulation, B-Bar and F-Bar methods, each of them with their own merits and demerits. In this work, we have developed a 3D finite element (hereby referred as J-Bar method) to counter volumetric locking in visco-hyperelastic solids. To validate the proposed J-Bar method, rheological characteristics of the human anterior cruciate ligament (ACL) were predicted and compared with the experimental results.

DOI: 10.1016/j.jbiomech.2018.03.016
PMID: 29599040

18: Biswas A, Das S, Kapoor M, Shamsudheen KV, Jayarajan R, Verma A, Seth S, Bhargava B, Scaria V, Sivasubbu S, Rao VR. Familial Hypertrophic Cardiomyopathy - Identification of cause and risk stratification through exome sequencing. Gene. 2018 Jun 20;660:151-156. doi: 10.1016/j.gene.2018.03.062. Epub 2018 Mar 21. PubMed PMID: 29572196.

BACKGROUND: Hypertrophic Cardiomyopathy (HCM) with variable clinical presentations and heterogeneity is the common cause of sudden cardiac death. Genetic diagnosis is challenging in these complex diseases but exome sequencing as a genetic diagnostic tool provides explainable results.
METHODS: In a familial Hypertrophic Cardiomyopathy with multigenerational inheritance with apparent phenotype, had a history of sudden death and severe arrhythmia followed by implantation of Implantable cardioverter defibrillator (ICD). Exome sequencing (100×) trailed by effective filtering steps for exome variants on the basis of different parameters, segregated variants are prioritized for the disease and further clinical relevance are evaluated for the variants.
RESULTS: A rare causal variant in troponin-T gene (TNNT2, NM_000364.3;c.274C > T;p.Arg92Trp) is identified, shared by only affected members, absent in unaffected members and also in 200 unrelated control chromosomes. TNNT2 mutation act as a driver mutation but mutations in other disease-related genes, KCNMB1, LPL, APOE and other biochemical factors provides risk stratification within affected family members.
CONCLUSION: This study contributes to the role of "rare variants" in complex disease phenotypes and heterogeneity within family and the necessity of whole exome targeted approaches in complex cardiomyopathy, which are known to harbor

private mutations.

DOI: 10.1016/j.gene.2018.03.062
PMID: 29572196 [Indexed for MEDLINE]

19: Chaudhary A, Kumar V, Singh PK, Sharma P, Bairagya HR, Kaur P, Sharma S, Chauhan SS, Singh TP. A glycoprotein from mammary gland secreted during involution promotes apoptosis: Structural and biological studies. Arch Biochem Biophys. 2018 Apr 15;644:72-80. doi: 10.1016/j.abb.2018.03.006. Epub 2018 Mar 7. PubMed PMID: 29524427.

Secretory signalling glycoprotein (SPX-40) from mammary gland is highly expressed during involution. This protein is involved in a programmed cell death during tissue remodelling which occurs at the end of lactation. SPX-40 was isolated and purified from buffalo (SPB-40) from the samples obtained during involution. One solution of SPB-40 was made by dissolving it in buffer containing 25 mM Tris-HCl and 50 mM NaCl at pH 8.0. Another solution was made by adding 25% ethanol to the above solution. The biological effects of SPB-40 dissolved in above two solutions were evaluated on MCF-7 breast cancer cell lines. Free SPB-40 indicated significant pro-apoptotic effects while ethanol exposed SPB-40 showed considerably reduced effects on the apoptosis. SPB-40 was crystallized in the native state. The crystals of SPB-40 were soaked in four separate solutions containing 25% acetone, 25% ethanol, 25% butanol and 25% MPD. Four separate data sets were collected and their structures were determined at high resolutions. In all the four structures, the molecules of acetone, ethanol, butanol and MPD respectively were observed in the hydrophobic binding pocket of SPB-40. As a result of which, the conformation of Trp78 was altered thus blocking the binding site in SPB-40 leading to the loss of activity.

DOI: 10.1016/j.abb.2018.03.006
PMID: 29524427

20: Chauhan M, Pradhan M, Behera C, Aggrawal A, Naagar S, Dogra TD. Homicide concealed strangulation after bobbing reins in sexually sadistic homicide. Med Leg J. 2018 Mar;86(1):55-57. doi: 10.1177/0025817217734091. Epub 2017 Dec 18. PubMed PMID: 29251185.

This case of sexually motivated homicide combined the perpetrator's obliteration of his victim's identity along with his attempt at concealment of the corpse and sexual gratification following ligature strangulation of a young unidentified female from a minority Indian state. Sexual bondage was evident with characteristic body tying in a typical posture to fuel the killer's sexual arousal and gratification before, during and then after strangling his victim with a scarf. The victim's body was left in a sack packed with vegetables and transported from the crime site and found abandoned in a park.

DOI: 10.1177/0025817217734091
PMID: 29251185

21: Chauhan R, Sazawal S, Singh K, Ragesh R Nair R, Chhikara S, Deka R, Chaubey R, Veetil KK, Dange P, Mahapatra M, Saxena R. Reversal of Glanzmann thrombasthenia platelet phenotype after imatinib treatment in a pediatric chronic myeloid leukemia patient. Platelets. 2018 Mar;29(2):203-206. doi: 10.1080/09537104.2017.1384539. Epub 2017 Nov 29. PubMed PMID: 29185819.

Chronic Myelogenous Leukemia (CML) is a myeloproliferative neoplasm characterized by proliferation of Philadelphia positive clonal pluripotent hematopoietic cells. Bleeding is a rare presentation of CML that can occur due to platelet

dysfunction. Both pre-treatment and post-treatment platelet function abnormalities in CML have been described in the literature. We describe a rare case of childhood CML who presented with mucocutateous bleeding manifestations. On laboratory workup, a Glanzmann Thrombasthenia (GT) like platelet phenotype was demonstrated along with confirmation of diagnosis of CML in chronic phase. The acquired nature of platelet function defect was confirmed by demonstrating recovery of platelet antigens glycoprotein IIb/IIIa after achieving complete hematological response with Imatinib. Due to presenting complaint of bleeding diathesis and absence of hepatosplenomegaly, the case was undiagnosed for CML until the patient reported to us. Careful evaluation of complete blood counts, peripheral blood picture and detailed laboratory workup was the window to proper diagnosis and treatment in this case.

DOI: 10.1080/09537104.2017.1384539
PMID: 29185819

22: Chauhan R, Sazawal S, Pati HP. Laboratory Monitoring of Chronic Myeloid Leukemia in Patients on Tyrosine Kinase Inhibitors. Indian J Hematol Blood Transfus. 2018 Apr;34(2):197-203. doi: 10.1007/s12288-018-0933-1. Epub 2018 Mar 13. Review. PubMed PMID: 29622860; PubMed Central PMCID: PMC5885003.

Chronic Myeloid Leukemia (CML) is a myeloproliferative neoplasm characterized by translocation of genetic material from chromosome 9 to chromosome 22 to form a fusion gene (BCR-ABL1) that is responsible for abnormal tyrosine kinase activity and alteration of various downstream signaling pathways. In addition to morphological diagnosis of CML phase, it is essential to detect BCR-ABL1 fusion by either metaphase cytogenetics or reverse transcriptase polymerase chain reaction that also determines type of mRNA transcript. Once treatment begins, monitoring the response to Tyrosine Kinase Inhibitor (TKI) using standardized techniques and guidelines is important to check for failure of response and thus, plan timely intervention by increasing the dose of TKI or opting for second line TKIs. The goal is to stop evolution of CML to accelerated phase or blast crisis that has poor response to treatment. Also, it is desirable to achieve good outcomes and even treatment free remission in patients of CML on TKI. Thus, molecular monitoring by reverse transcriptase quantitative PCR (RT-qPCR) is done at regular intervals. There are international recommendations and quality control measures to standardize the reporting of fusion gene transcript levels by quantitative PCR (RT-qPCR) in CML to achieve and maintain sensitivity in molecular detection of CML disease burden. Various state-of-the-art molecular techniques have emerged to accurately determine the number of fusion-gene transcript levels. This review highlights various methodologies and their practical implications in management of CML patients on TKI.

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PMCID: PMC5885003 [Available on 2019-04-01]
PMID: 29622860

Conflict of interest statement: Compliance with Ethical StandardsAll authors declare that they have no conflict of interest.This article does not contain any studies with human participants or animals performed by any of the authors.

23: Chauhan S, Sen S, Sharma A, Kashyap S, Tandon R, Bajaj MS, Pushker N, Vanathi M, Chauhan SS. p16(INK4a) overexpression as a predictor of survival in ocular surface squamous neoplasia. Br J Ophthalmol. 2018 Jun;102(6):840-847. doi: 10.1136/bjophthalmol-2017-311276. Epub 2018 Mar 6. PubMed PMID: 29511060.

AIMS: To evaluate the expression and methylation status of the p16INK4a gene in early and advanced American Joint Committee on Cancer (AJCC) stages of ocular surface squamous neoplasia (OSSN) and to correlate its association with clinicopathological features and survival.
METHODS: Sixty-four (35 early and 29 advanced AJCC stage) patients with OSSN formed part of this study and were followed up for 36-58 (mean 48±3.6) months.

Immunohistochemical expression of the p16INK4a protein and methylation status of the p16INK4a gene were determined by methylation-specific PCR.
RESULTS: Overexpression of p16INK4a was observed in 18/64 (28%) and hypermethylation in 35/64 (54.7%) OSSN cases. A gradual significant increase in the expression of p16INK4a (0%-48%, P=0.03) and decrease in its methylation (75%-16%, P=0.001) was observed with disease progression from early to advanced tumour stage. Overexpression of p16INK4a was significantly associated with palpebral location and diffuse growth pattern in both early and advanced T stage. Hypermethylation of p16INK4a was significantly associated with history of longer sunlight exposure in both early and advanced T stage of OSSN cases. In advanced T stage, p16INK4a overexpression was associated with reduced disease-free survival (P=0.02) and poor prognosis (HR, 0.2; P=0.03).
CONCLUSIONS: OSSN patients presenting at an advanced AJCC stage with p16INK4a overexpression may require more aggressive treatment. Epigenetic inactivation of the p16INK4a gene due to sunlight exposure could be responsible for pathogenesis of OSSN.

DOI: 10.1136/bjophthalmol-2017-311276
PMID: 29511060

Conflict of interest statement: Competing interests: None declared.

24: Chauhan S, Khan SA, Prasad A. Irradiation-Induced Compositional Effects on Human Bone After Extracorporeal Therapy for Bone Sarcoma. Calcif Tissue Int. 2018 Aug;103(2):175-188. doi: 10.1007/s00223-018-0408-2. Epub 2018 Mar 2. PubMed PMID: 29500623.

The present study investigates Raman scattering of human bone irradiated with 50 Gy single dose during therapeutic treatment of Ewing and Osteosarcoma. Bone quality was evaluated via mineral-to-matrix ratio, degree of crystallinity, change in amount of calcium, and carbonate substitution. Alteration in collagen and its cross-links was quantified through second-derivative deconvolution of Amide I peak. A dose of 50 Gy radiation leads to almost 50% loss of mineral content, while maintaining mineral crystallinity, and small changes in carbonate substitution. Deconvolution of Amide I suggested modifications in collagen structure via increase in amount of enzymatic trivalent cross-linking ($p < 0.05$). Overall irradiation led to detrimental effect on bone quality via changes in its composition, consequently reducing its elastic modulus with increased plasticity. The study thus quantifies effect of single-dose 50 Gy radiation on human bone, which in turn is necessary for designing improved radiation dosage during ECRT and for better understanding post-operative care.

DOI: 10.1007/s00223-018-0408-2
PMID: 29500623

25: Chopra S, Kaur H, Pandey RM, Nehra A. Development of neuropsychological evaluation screening tool: An education-free cognitive screening instrument. Neurol India. 2018 Mar-Apr;66(2):391-399. doi: 10.4103/0028-3886.227304. PubMed PMID: 29547160.

Background: Due to the paucity of quick, cognitive screening tools available in India that are independent of cultural and educational influences, a 6-item paper and pencil test, covering areas of memory, executive functioning, attention, and visuospatial ability domains - the Neuropsychological Evaluation Screening Tool (NEST) was developed.
Aim and Method: NEST was administered to 84 healthy controls to analyze, revise, and review items. In the second phase, 408 patients, above 16 years of age, with their educational level ranging from being illiterate to having greater than 25

years of education, with various neurological and psychiatric conditions were independently administered NEST, Hindi Mental State Examination (HMSE), and a detailed cognitive evaluation using PGI Memory Scale (PGIMS).
Results: Using receiver operating characteristics analysis for 341 patients, ≥3 was identified as the optimum cut-off for NEST. NEST could correctly classify 87.9% of the patients with an impaired vs. an intact cognition. The diagnostic characteristics of NEST with PGIMS were sensitivity (95% CI): 94.78% (91.1, 97.3); specificity (95% CI): 60.31% (51.3, 68.7); positive predictive value (95% CI): 80.74% (78.1, 93.0); and negative predictive value (95% CI): 86.81% (75.6, 85.3). NEST had an 82.5% agreement (95% CI: 78.1, 86.2) with PGIMS. On the other hand, the diagnostic characteristics of HMSE with PGIMS were sensitivity (95% CI): 73.79% (67.5, 79.3); specificity (95% CI): 82.44% (74.8, 88.5); positive predictive value (95% CI): 88.02% (82.5, 92.2); and negative predictive value (95% CI): 64.3% (56.5, 71.5). HMSE had a 76.95% (95% CI: 72.2, 81.1) agreement with PGIMS.
Conclusions: NEST has better sensitivity compared to HMSE for detecting cognitive impairment when compared to a detailed evaluation at all educational levels.

DOI: 10.4103/0028-3886.227304
PMID: 29547160

Conflict of interest statement: There are no conflicts of interest

26: Dabas A, Khadgawat R, Gahlot M, Surana V, Mehan N, Ramot R, Pareek A, Sreenivas V, Marwaha RK. Height Velocity in Apparently Healthy North Indian School Children. Indian J Endocrinol Metab. 2018 Mar-Apr;22(2):256-260. doi: 10.4103/ijem.IJEM_638_17. PubMed PMID: 29911041; PubMed Central PMCID: PMC5972484.

Objective: Linear growth is best estimated by serial anthropometric data or height velocity (HV). In the absence of recent data on growth velocity, we undertook to establish normative data in apparently healthy North Indian children.
Materials and Methods: Prospective longitudinal study in a representative sample of 7710 apparently healthy children, aged 3-17 years from different regions of Delhi. Height was measured at baseline and at 12 months while pubertal examination was performed at baseline in a subset of children.
Results: The data on HV and puberty were available in 5635 participants (73.08%; 2341 boys and 3294 girls) and 1553 participants (622 boys; and 931 girls), respectively. The mean peak height velocity (PHV) was 7.82 ± 2.60 cm in boys seen at 12-12.9 years and 6.63 ± 1.81 cm in girls at 10-10.9 years Although late maturing boys had a greater HV than early or normal maturers, it did not vary with the age of pubertal maturation in girls. HV correlated with parental height in prepubertal boys, girls, and pubertal boys ($P < 0.01$) while no correlation was seen in girls.
Conclusions: The study presents normal height velocities in North Indian children. A secular trend was observed in achieving PHV in both boys and girls.

DOI: 10.4103/ijem.IJEM_638_17
PMCID: PMC5972484
PMID: 29911041

Conflict of interest statement: There are no conflicts of interest.

27: Dadhwal V, Chawla L, Sharma AK, Deka D. What is your diagnosis? J Turk Ger Gynecol Assoc. 2018 Mar 1;19(1):53-55. doi: 10.4274/jtgga.2017.0117. PubMed PMID: 29503263; PubMed Central PMCID: PMC5838779.

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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.

DOI: 10.1016/j.cca.2018.03.019
PMID: 29572186

29: Dar HY, Pal S, Shukla P, Mishra PK, Tomar GB, Chattopadhyay N, Srivastava RK. Bacillus clausii inhibits bone loss by skewing Treg-Th17 cell equilibrium in postmenopausal osteoporotic mice model. Nutrition. 2018 Mar 20;54:118-128. doi: 10.1016/j.nut.2018.02.013. [Epub ahead of print] PubMed PMID: 29793054.

OBJECTIVES: Postmenopausal osteoporosis is one of most commonly occurring skeletal diseases leading to bone loss and fragility. Probiotics have been associated with various immunomodulatory properties and thus can be exploited to enhance bone health. In the present study, we report, to our knowledge for the first time, that oral administration of Bacillus clausii (BC) in postmenopausal osteoporotic (OVX) mice model enhances bone health.
METHODS: BC was selected as probiotic of choice due to its established immunomodulatory properties. BC skews the Treg-Th17 cell balance in vivo by inhibiting osteoclastogenic Th17 cells and promoting antiosteoclastogenic Treg cell development in postmenopausal osteoporotic mice. Mice were divided into three groups (sham, OVX, and OVX+BC), and BC was administered orally in drinking water for 6 wk post-ovariectomy. At the end of experiment, mice were sacrificed and bones were analyzed for various parameters, along with lymphoid tissues for Treg-Th17 cells and serum cytokines.
RESULTS: We observed that BC administration enhanced bone health. This effect of BC administration was found due to skewing of Treg-Th17 cell balance (enhanced Treg and decreased Th17 cells) in vivo. BC administration reduced levels of proinflammatory cytokines (interleukin [IL]-6, IL-17, IFN-γ and tumor necrosis factor-α) and increased levels of anti-inflammatory cytokine (IL-10).
CONCLUSIONS: The present study strongly supports and establishes the osteoprotective potential of BC leading to enhanced bone health in postmenopausal osteoporotic mice model.

DOI: 10.1016/j.nut.2018.02.013
PMID: 29793054

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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.

DOI: 10.1016/j.crad.2018.02.003
PMID: 29549997

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33: Doddamani RS, Meena RK, Sawarkar D. Ambiguity in the Dural Tail Sign on MRI. Surg Neurol Int. 2018 Mar 19;9:62. doi: 10.4103/sni.sni_328_17. eCollection 2018. PubMed PMID: 29629229; PubMed Central PMCID: PMC5875113.

Background: Meningiomas give rise to the dural tail sign (DTS) on contrast-enhanced magnetic resonance imaging (CEMRI). The presence of DTS does not always qualify for a meningioma, as it is seen in only 60-72% of cases. This sign has been described in various other lesions like lymphomas, metastasis, hemangiopericytomas, schwannomas and very rarely glioblastoma multiforme (GBM). The characteristics of dural-based GBMs are discussed here, as only eleven such cases are reported in the literature till date. Here we discuss the unique features of this rare presentation.
Case Description: A 17-year-old male presented to the emergency department (ED) with, complaints of headache, recurrent vomiting, vision loss in right eye and altered sensorium. On examination patient was drowsy with right hemiparesis, secondary optic atrophy in the right eye and papilledema in the left eye. MRI brain showed, heterogeneous predominantly solid cystic lesion with central hypo-intense core suggestive of necrosis with heterogeneous enhancement and a positive DTS. Patient underwent emergency left parasagittal parieto-occipital craniotomy and gross total tumor excision including the involved dura and the falx. On opening the dura, tumor was surfacing, invading the superior sagittal sinus and the falx, greyish, soft to firm in consistency with central necrosis and highly vascular suggesting a high-grade lesion. Postoperative computed tomography (CT) of the brain showed evidence of gross total tumor (GTR) excision. The postoperative course of the patient was uneventful. Histopathological analysis revealed GBM with PNET like components. The dura as well as the falx were involved by the tumor.
Conclusion: GBMs can arise in typical locations along with DTS mimicking meningiomas. Excision of the involved dura and the falx becomes important in this scenario, so as to achieve GTR. Hence high index of suspicion preoperatively

aided by Magnetic Resonance Imaging (MRS) can help distinguish GBMs from meningioma, thereby impacting upon the prognosis.

DOI: 10.4103/sni.sni_328_17
PMCID: PMC5875113
PMID: 29629229

Conflict of interest statement: There are no conflicts of interest.

34: Fernandes-Rosa FL, Daniil G, Orozco IJ, GÃ¶ppner C, El Zein R, Jain V, Boulkroun S, Jeunemaitre X, Amar L, Lefebvre H, Schwarzmayr T, Strom TM, Jentsch TJ, Zennaro MC. A gain-of-function mutation in the CLCN2 chloride channel gene causes primary aldosteronism. Nat Genet. 2018 Mar;50(3):355-361. doi: 10.1038/s41588-018-0053-8. Epub 2018 Feb 5. PubMed PMID: 29403012.

Primary aldosteronism is the most common and curable form of secondary arterial hypertension. We performed whole-exome sequencing in patients with early-onset primary aldosteronism and identified a de novo heterozygous c.71G>A/p.Gly24Asp mutation in the CLCN2 gene, encoding the voltage-gated ClC-2 chloride channel 1 , in a patient diagnosed at 9 years of age. Patch-clamp analysis of glomerulosa cells of mouse adrenal gland slices showed hyperpolarization-activated Cl- currents that were abolished in Clcn2-/- mice. The p.Gly24Asp variant, located in a well-conserved 'inactivation domain'2,3, abolished the voltage- and time-dependent gating of ClC-2 and strongly increased Cl- conductance at resting potentials. Expression of ClC-2Asp24 in adrenocortical cells increased expression of aldosterone synthase and aldosterone production. Our data indicate that CLCN2 mutations cause primary aldosteronism. They highlight the important role of chloride in aldosterone biosynthesis and identify ClC-2 as the foremost chloride conductor of resting glomerulosa cells.

DOI: 10.1038/s41588-018-0053-8
PMID: 29403012

35: Gahane AY, Ranjan P, Singh V, Sharma RK, Sinha N, Sharma M, Chaudhry R, Thakur AK. Fmoc-phenylalanine displays antibacterial activity against Gram-positive bacteria in gel and solution phases. Soft Matter. 2018 Mar 28;14(12):2234-2244. doi: 10.1039/c7sm02317k. Epub 2018 Mar 8. PubMed PMID: 29517792.

In the quest for new antimicrobial materials, hydrogels of Fmoc-protected peptides and amino acids have gained momentum due to their ease of synthesis and cost effectiveness; however, their repertoire is currently limited, and the mechanistic details of their function are not well understood. Herein, we report the antibacterial activity of the hydrogel and solution phases of Fmoc-phenylalanine (Fmoc-F) against a variety of Gram-positive bacteria including methicillin-resistant Staphylococcus aureus (MRSA). Fmoc-F, a small molecule hydrogelator, reduces the bacterial load both in vitro and in the skin wound infections of mice. The antibacterial activity of Fmoc-F is predominantly due to its release from the hydrogel. Fmoc-F shows surfactant-like properties with critical micelle concentration nearly equivalent to its minimum bactericidal concentration. Similar to Fmoc-F, some Fmoc-conjugated amino acids (Fmoc-AA) have also shown antibacterial effects that are linearly correlated with their surfactant properties. At low concentrations, where Fmoc-F does not form micelles, it inhibits bacterial growth by entering the cell and reducing the glutathione levels. However, at higher concentrations, Fmoc-F triggers oxidative and osmotic stress and, alters the membrane permeabilization and integrity, which kills Gram-positive bacteria. Herein, we proposed the use of the Fmoc-F hydrogel and its solution for several biomedical applications. This study will open up new avenues to enhance the repertoire of Fmoc-AA to act as antimicrobial agents and improve their structure-activity relationship.

DOI: 10.1039/c7sm02317k

PMID: 29517792

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38: Garg H, Prakash S, Deb KS, Chadda RK. Secondary mania following cancer chemotherapy with capecitabine. BMJ Case Rep. 2018 Mar 28;2018. pii: bcr-2017-220995. doi: 10.1136/bcr-2017-220995. PubMed PMID: 29599381.

Mania-like states occurring due to neurological, metabolic or toxic conditions, without a primary mood disorder have been reported in scientific literature as secondary mania. A major clinical problem in such situations often stems from the difficulty to understand if the mood disturbance is indeed secondary to an organic cause or a coincidental primary mood disorder. Chemotherapy regimens have been associated with multiple psychiatric complications, including psychosis, mania and anxiety. Capecitabine is implicated to be associated with encephalopathy whose clinical presentation often mimics that of psychosis. However, presentations with mania have not been reported until with the capecitabine and oxaliplatin combination chemotherapy regimen. In this report, we describe a case of secondary mania in a patient suffering from carcinoma colon on treatment with chemotherapy regimen of capecitabine and oxaliplatin.

DOI: 10.1136/bcr-2017-220995
PMID: 29599381

Conflict of interest statement: Competing interests: None declared.

39: Garg P, Jaryal AK, Kachhawa G, Deepak KK, Kriplani A. Estimation of asymmetric dimethylarginine (ADMA), placental growth factor (PLGF) and pentraxin 3 (PTX 3) in women with preeclampsia. Pregnancy Hypertens. 2018 Mar 10. pii: S2210-7789(17)30492-0. doi: 10.1016/j.preghy.2018.03.005. [Epub ahead of print] PubMed PMID: 29548740.

OBJECTIVE: To evaluate the sequential trend of asymmetric dimethylarginine (ADMA), placental growth factor (PLGF) and pentraxin 3 (PTX 3) in pregnancies developing preeclampsia (PE) as compared to healthy pregnancy (HP) and to estimate their predictive value for development of PE later in pregnancy.
STUDY DESIGN: Nested case control design, sampling was done in 13 women with PE and 21 age matched healthy pregnant women at 11-13 weeks, 20-22 weeks and 30-32 weeks of gestation.
MAIN OUTCOME MEASURE: PLGF, ADMA, and PTX 3 were estimated temporally.
RESULTS: Serum ADMA and PTX 3 levels were higher in PE than HP even at 11-13 weeks and remained elevated throughout the gestation. PTX 3 concentration increased in both the groups with advancing gestation however significant rise was observed only in HP group. PLGF levels also increased with advancing gestation in HP group while in PE, there was a rise till 20-22 weeks of gestation followed by fall at 30-32 weeks. PLGF levels were lower in PE at 30-32 weeks than healthy pregnancy. Area under curve (AUC) for ADMA and PTX 3 were: at 11-13 weeks; 95.95% and 83.33% and 20-22 weeks; 89.88% and 90.06% respectively. At 30-32 weeks, PLGF and ADMA demonstrated an AUC of 86.51% and 86.51% respectively.

CONCLUSION: Abnormally elevated ADMA and PTX 3 levels precede the manifestation of PE and suggest endothelial dysfunction with exaggerated inflammatory response in PE. Both ADMA and PTX 3 can be used to segregate high risk women for development of PE than others in early pregnancy.

DOI: 10.1016/j.preghy.2018.03.005
PMID: 29548740

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Life expectancy in Hurler syndrome is significantly improved by enzyme therapy with bone marrow transplantation. However, the deterioration of skeletal abnormalities persists. Hip dysplasia is a common presentation which may progress to significant hip arthritis requiring total hip arthroplasty at later stage. We report a long-term outcome of cementless total hip arthroplasty in a patient with Hurler syndrome who was successfully treated with bone marrow transplant.

DOI: 10.1016/j.jor.2018.01.036
PMCID: PMC5895911 [Available on 2019-03-01]
PMID: 29657451

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Introduction: NephCure Accelerating Cures Institute (NACI) is a collaborative organization sponsored by NephCure Kidney International and the University of Michigan. The Institute is composed of 7 cores designed to improve treatment options and outcomes for patients with glomerular disease: Clinical Trials Network, Data Warehouse, Patient-Reported Outcomes (PRO) and Endpoints Consortium, Clinical Trials Consulting Team, Quality Initiatives, Education and Engagement, and Data Coordinating Center.
Methods: The Trials Network includes 22 community- and hospital-based nephrology

practices, 14 of which are trial-only sites. Eight sites participate in the NACI Registry, and as of October 2017, 1054 patients are enrolled with diagnoses including but not limited to focal segmental glomerulosclerosis, minimal change disease, membranous nephropathy, IgA nephropathy, and childhood-onset nephrotic syndrome. By using electronic health record data extraction, robust and efficient clinical data are captured while minimizing the burden to site-based network staff.
Results: The Data Warehouse includes her-extracted data from registry patients, PRO development data, and data from completed observational studies and clinical trials. The Clinical Trial Consulting Team provides support for trial design in rare diseases leveraging these data. The PRO and Endpoints Consortium develops shorter-term endpoints while capturing the patient-reported significance of interventions under study. The Quality Initiatives and Education/Engagement cores elevate the level of care for patients. The Data Coordinating Center manages the analysis and operations of the Institute.
Conclusion: By engaging with patients, academia, industry, and patient advocate community representatives, including our Patient Advisory Board, NACI strives for better outcomes and treatments using evidence-based support for clinical trial design.

DOI: 10.1016/j.ekir.2017.11.016
PMCID: PMC5932133
PMID: 29725648

46: Giri AK, Parekatt V, Dwivedi OP, Banerjee P, Bandesh K, Prasad G, Tandon N, Bharadwaj D. Common variants of ARID1A and KAT2B are associated with obesity in Indian adolescents. Sci Rep. 2018 Mar 2;8(1):3964. doi: 10.1038/s41598-018-22231-x. PubMed PMID: 29500370; PubMed Central PMCID: PMC5834613.

Obesity involves alterations in transcriptional programs that can change in response to genetic and environmental signals through chromatin modifications. Since chromatin modifications involve different biochemical, neurological and molecular signaling pathways related to energy homeostasis, we hypothesize that genetic variations in chromatin modifier genes can predispose to obesity. Here, we assessed the associations between 179 variants in 35 chromatin modifier genes and overweight/obesity in 1283 adolescents (830 normal weight and 453 overweight/obese). This was followed up by the replication analysis of associated signals (18 variants in 8 genes) in 2247 adolescents (1709 normal weight and 538 overweight/obese). Our study revealed significant associations of two variants rs6598860 (OR = 1.27, P = 1.58 × 10-4) and rs4589135 (OR = 1.22, P = 3.72 × 10-4) in ARID1A with overweight/obesity. We also identified association of rs3804562 (β = 0.11, P = 1.35 × 10-4) in KAT2B gene with BMI. In conclusion, our study suggests a potential role of ARID1A and KAT2B genes in the development of obesity in adolescents and provides leads for further investigations.

DOI: 10.1038/s41598-018-22231-x
PMCID: PMC5834613
PMID: 29500370

47: Giridhar P, Mallick S, Kashyap L, Rath GK. Patterns of care and impact of prognostic factors in the outcome of NUT midline carcinoma: a systematic review and individual patient data analysis of 119 cases. Eur Arch Otorhinolaryngol. 2018 Mar;275(3):815-821. doi: 10.1007/s00405-018-4882-y. Epub 2018 Jan 22. Review. PubMed PMID: 29356890.

INTRODUCTION: NUT midline carcinoma is a rare tumour occurring in young adults which is frequently misdiagnosed as poorly differentiated squamous cell carcinoma or germ cell tumour. Though considered highly aggressive, there is limited information about the clinical behaviour of such patients. We intended to perform this review of published literature to assess the demographic profile, pattern of care and assess survival outcomes.

METHODS: Two authors independently searched PubMed and Google search for eligible studies from 1950 till July 1 2017 published in English language using MESH terms NUT midline carcinoma; NUT midline carcinoma and radiotherapy and translocation 15:19 tumour.
RESULTS: Data of 119 patients were retrieved from 64 publications for statistical analysis. Median age of the entire cohort was 23 years (range 0-68 years). The analysis revealed equal incidence in males and females (60:58). The present analysis revealed that the most common location is the lung (n=42) followed by head and neck (n=40). Median OS for the entire cohort was only 5 months with 1 and 5 year OS for the entire cohort was 24.99 and 7.09% respectively. Radiotherapy and chemotherapy inclusion in primary treatment had a significant impact on overall survival on univariate analysis while surgery did not affect survival significantly. No impact on overall survival was found based on type of molecular translocation, i.e., NUT-BRD4, NUT-BRD3 or other variants. Inadequate data were available for identify impact of BET inhibitors and HiDAc on PFS and OS.
CONCLUSION: NUT midline carcinoma has dismal prognosis. Radiotherapy and chemotherapy improves survival, but do not provide long term control except in anecdotal cases. Further research is needed to improve outcomes in future.

DOI: 10.1007/s00405-018-4882-y
PMID: 29356890 [Indexed for MEDLINE]

48: Goel N, Kumar V, Arora S, Jain P, Ghosh B. Spectral domain optical coherence tomography evaluation of macular changes in Eales disease. Indian J Ophthalmol. 2018 Mar;66(3):433-438. doi: 10.4103/ijo.IJO_845_17. PubMed PMID: 29480258; PubMed Central PMCID: PMC5859602.

Purpose: The purpose of the study was to describe macular changes in treatment-naïve eyes with Eales disease using spectral domain optical coherence tomography (SD-OCT).
Methods: A cross-sectional study was done on 79 eyes of 66 patients with Eales disease. Best-corrected visual acuity (BCVA), slit-lamp biomicroscopy (SLB), indirect ophthalmoscopy, fundus fluorescein angiography (FFA), and quantitative (central macular thickness [CMT]) and qualitative analysis on SD-OCT were performed.
Results: Forty-six (58.2%) eyes had macular involvement as assessed with SD-OCT, while in 33 (41.8%) eyes, macula was not affected. Macular edema was the most common feature when macula was affected followed by epiretinal membrane. Mean CMT was higher (315.3 ± 102.3 μm) in eyes with macular involvement than those without it (243.8 ± 19.3 μm). Eyes with active vasculitis involving larger vessels and neovascularization had greater chance of macular involvement. SLB and FFA alone missed 28.3% and 50% eyes with macular abnormalities on SD-OCT, respectively.
Conclusion: While the clinical description of Eales disease points mainly to a peripheral location, macular involvement can be commonly picked up when SD-OCT is used. Macular involvement when present is associated with a poorer BCVA.

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PMID: 29480258 [Indexed for MEDLINE]

Conflict of interest statement: There are no conflicts of interest.

49: Grover S, Ghosh A, Sarkar S, Desouza A, Yaddanapudi LN, Basu D. Delirium in Intensive Care Unit: Phenomenology, Subtypes, and Factor Structure of Symptoms. Indian J Psychol Med. 2018 Mar-Apr;40(2):169-177. doi: 10.4103/IJPSYM.IJPSYM_274_17. PubMed PMID: 29962574; PubMed Central PMCID: PMC6009000.

Aim: This study aimed to explore the phenomenology, motor subtypes, and factor structure of symptom profile of delirium in patients admitted to the intensive care unit (ICU).

Methods: Consecutive patients aged ≥16 years admitted in an ICU were screened daily for delirium using confusion assessment method-ICU. Patients diagnosed to have delirium as per Diagnostic and Statistical Manual fourth revision, text revision (DSM-IVTR) criteria were assessed with Delirium Rating Scale-Revised 98 (DRS-R 98) and Memorial Delirium Assessment Scale (MDAS). Motor subtypes of delirium were assessed with amended Delirium Motor Symptom Scale.
Results: Sixty-six patients were evaluated for delirium, of which 45 (68%) patients developed delirium at point of their ICU stay. All patients had sleep-wake cycle disturbances, followed by motor symptoms (retardation - 80%; agitation - 73.3%). As per MDAS assessment, all the subjects had disturbances in the consciousness and sleep-wake cycle disturbances, and a substantial majority also had attention difficulties (93.3%) and motor symptoms (93.3%). Hypoactive subtype (47%) was the most common motoric subtype of delirium. Factor analysis revealed three-factor model for DRS-R 98, MDAS, and combining items of the two.
Conclusion: Phenomenology of delirium in ICU setting is similar to that of the non-ICU settings. The factor analysis consistently demonstrated a three factor solution, with a robust attention-arousal factor, and overlapping cognitive (core vs. non-core) motor factors.

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PMCID: PMC6009000
PMID: 29962574

Conflict of interest statement: There are no conflicts of interest.

50: Gulla KM, Sahoo T, Sankar J. Developing and Testing Fidelity of Manikins for Training in Cardio-Pulmonary Resuscitation: Need of the Hour! Indian J Pediatr. 2018 Mar;85(3):168-169. doi: 10.1007/s12098-017-2573-0. Epub 2017 Dec 22. Review. PubMed PMID: 29270796.

51: Gupta A, Mishra P, Pati HP, Tyagi S, Mahapatra M, Seth T, Saxena R. Spectrum of hemostatic disorders in Indian females presenting with bleeding manifestations. Int J Lab Hematol. 2018 Aug;40(4):437-441. doi: 10.1111/ijlh.12806. Epub 2018 Mar 25. PubMed PMID: 29575615.

INTRODUCTION: Hemostatic disorders are often missed in women with bleeding particularly menorrhagia. Preexisting hemostatic disorders are now known as common risk factor for postpartum hemorrhage and prolonged bleeding in puerperium. Females with bleeding complaints constitute an important population referred to hematology clinic. Hence, we aim to evaluate the type and frequency of hemostatic disorders among females presenting with bleeding in a tertiary care hospital and a basic hemostatic laboratory.
METHODS: Three-year data were retrospectively analyzed for 200 females with various bleeding complaints. Due to resource constraints, a hemostatic workup was done with prothrombin time, activated partial thromboplastin time, thrombin time, fibrinogen assay, clot solubility test, mixing studies, specific factor assays, platelet function test, and von Willebrand factor antigen level.
RESULTS: A total of 200 females were investigated to identify the cause of their bleeding. Thirty-five of 200 (17.5%) females were found with an underlying bleeding disorder. Of these 35 females, 65.7% presented with bleeding from more than 1 site. Most common bleeding manifestation was spontaneous bruising in 18 of 35 (51.4%) patients followed by petechiae (48.6%). Inherited bleeding disorders were noted in majority. The most common inherited bleeding disorder identified was von Willebrand disease (VWD) in 34.3% females. Second most common disorder was Glanzmann's thrombasthenia accounting for 22.8%. Rare coagulation factor deficiency, such as factors VII, X, and XIII deficiencies, was noted. Three cases revealed acquired causes of coagulation defects.
CONCLUSION: Underlying hemostatic defects should be searched for in women with unexplained bleeding complaints. This will not only help in diagnosis but also in proper management for future hemostatic challenges.

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PMID: 29575615

52: 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.

DOI: 10.1111/jvh.12870
PMID: 29377464

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BACKGROUND: Estimates of influenza-associated mortality are important for national and international decision making on public health priorities. Previous estimates of 250 000-500 000 annual influenza deaths are outdated. We updated the

estimated number of global annual influenza-associated respiratory deaths using country-specific influenza-associated excess respiratory mortality estimates from 1999-2015.
METHODS: We estimated country-specific influenza-associated respiratory excess mortality rates (EMR) for 33 countries using time series log-linear regression models with vital death records and influenza surveillance data. To extrapolate estimates to countries without data, we divided countries into three analytic divisions for three age groups (<65 years, 65-74 years, and ≥75 years) using WHO Global Health Estimate (GHE) respiratory infection mortality rates. We calculated mortality rate ratios (MRR) to account for differences in risk of influenza death across countries by comparing GHE respiratory infection mortality rates from countries without EMR estimates with those with estimates. To calculate death estimates for individual countries within each age-specific analytic division, we multiplied randomly selected mean annual EMRs by the country's MRR and population. Global 95% credible interval (CrI) estimates were obtained from the posterior distribution of the sum of country-specific estimates to represent the range of possible influenza-associated deaths in a season or year. We calculated influenza-associated deaths for children younger than 5 years for 92 countries with high rates of mortality due to respiratory infection using the same methods.
FINDINGS: EMR-contributing countries represented 57% of the global population. The estimated mean annual influenza-associated respiratory EMR ranged from 0·1 to 6·4 per 100 000 individuals for people younger than 65 years, 2·9 to 44·0 per 100 000 individuals for people aged between 65 and 74 years, and 17·9 to 223·5 per 100 000 for people older than 75 years. We estimated that 291 243-645 832 seasonal influenza-associated respiratory deaths (4·0-8·8 per 100 000 individuals) occur annually. The highest mortality rates were estimated in sub-Saharan Africa (2·8-16·5 per 100 000 individuals), southeast Asia (3·5-9·2 per 100 000 individuals), and among people aged 75 years or older (51·3-99·4 per 100 000 individuals). For 92 countries, we estimated that among children younger than 5 years, 9243-105 690 influenza-associated respiratory deaths occur annually.
INTERPRETATION: These global influenza-associated respiratory mortality estimates are higher than previously reported, suggesting that previous estimates might have underestimated disease burden. The contribution of non-respiratory causes of death to global influenza-associated mortality should be investigated.
FUNDING: None.

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PMCID: PMC5935243 [Available on 2019-03-31]
PMID: 29248255

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BACKGROUND: Studies on mitochondrial DNA copy number reveal an increase or decrease in copy number that appears to be cancer specific, but data on acute lymphoblastic leukemia have been inconsistent regarding the significance of changes in mitochondrial DNA copies. The purpose of this pilot study was to analyze mitochondrial DNA copy number and mitochondrial DNA integrity.
PROCEDURE: Copy number and mitochondrial deletion ratios were estimated in the bone marrow of 51 patients and peripheral blood of 30 healthy controls using quantitative real-time PCR. The copy number values were correlated with prognostic markers in patients.
RESULTS: Significantly increased mitochondrial DNA copy number (P-value < 0.0001) and increased mitochondrial deletion ratios (P-value = 0.0018) were observed in patients compared with controls. The copy numbers were significantly decreased in patients after chemotherapy (P-value = 0.0232). Patients with higher copy numbers exhibited significantly inferior survival than patients with lower copy numbers

(for event-free survival, P-value = 0.04 and overall survival, P-value = 0.1175).
CONCLUSIONS: Significant decreases in mitochondrial DNA copy number with therapy indicates that copy number could be evaluated as a potential marker for therapeutic efficacy and a higher mitochondrial DNA copy number could be a poor prognostic marker.

DOI: 10.1002/pbc.26874
PMID: 29134740

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CONTEXT: - There has been a paradigm shift in the understanding of molecular pathogenesis of lung cancer. A number of oncogenic drivers have been identified in non-small cell lung carcinoma, such as the epidermal growth factor receptor (EGFR) mutation and anaplastic lymphoma kinase (ALK) gene rearrangement. Because of the clinical presentation at an advanced stage of disease in non-small cell lung carcinoma patients, the use of minimally invasive techniques is preferred to obtain a tumor sample for diagnosis. These techniques include image-guided biopsies and fine-needle aspirations, and frequently the cytology specimen may be the only tissue sample available for the diagnosis and molecular testing for these patients.
OBJECTIVE: - To review the current literature and evaluate the role of cytology specimens in lung cancer mutation testing. We reviewed the types of specimens received in the laboratory, specimen processing, the effect of preanalytic factors on downstream molecular studies, and the commonly used molecular techniques for biomarker testing in lung cancer.
DATA SOURCES: - PubMed and Google search engines were used to review the published literature on the topic.
CONCLUSIONS: - Mutation testing is feasible on a variety of cytologic specimen types and preparations. However, a thorough understanding of the cytology workflow for the processing of samples and appropriate background knowledge of the molecular tests are necessary for triaging, and optimum use of these specimens is necessary to guide patient management.

DOI: 10.5858/arpa.2017-0444-RA
PMID: 29547001

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BACKGROUND AND AIM: Knowledge of long-term outcomes following an index episode of acute severe colitis (ASC) can help informed decision making at a time of acute exacerbation especially when colectomy is an option. We aimed to identify long-term outcomes and their predictors after a first episode of ASC in a large North Indian cohort.
METHODS: Hospitalized patients satisfying Truelove and Witts' criteria under follow-up at a single center from January 2003 to December 2013 were included. Patients avoiding colectomy at index admission were categorized as complete (≤ 3 non bloody stool per day) or incomplete responders, based upon response to corticosteroids at day 7. Random Forest-based machine learning models were

constructed to predict the long-term risk of colectomy or steroid dependence following an index episode of ASC.
RESULTS: Of 1731 patients with ulcerative colitis, 179 (10%) had an index episode of ASC. Nineteen (11%) patients underwent colectomy at index admission and 42 (26%) over a median follow-up of 56 (1-159) months. Hazard ratio for colectomy for incomplete responder was 3.6 (1.7-7.5, P = 0.001) compared with complete responder. Modeling based on four variables, response at day 7 of hospitalization, steroid use during the first year of diagnosis, longer disease duration before ASC, and number of extra-intestinal manifestations, was able to predict colectomy with an accuracy of 77%.
CONCLUSIONS: Disease behavior of ASC in India is similar to the West, with a third undergoing colectomy at 10 years. Clinical features, especially response at day 7 hospitalization for index ASC, can predict both colectomy and steroid dependence with reasonable accuracy.

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PMID: 28801987 [Indexed for MEDLINE]

60: Jat KR, Walia DK, Khairwa A. Anti-IgE therapy for allergic bronchopulmonary aspergillosis in people with cystic fibrosis. Cochrane Database Syst Rev. 2018 Mar 18;3:CD010288. doi: 10.1002/14651858.CD010288.pub4. Review. PubMed PMID: 29551015.

BACKGROUND: Cystic fibrosis is an autosomal recessive multisystem disorder with an approximate prevalence of 1 in 3500 live births. Allergic bronchopulmonary aspergillosis is a lung disease caused by aspergillus-induced hypersensitivity with a prevalence of 2% to 15% in people with cystic fibrosis. The mainstay of treatment includes corticosteroids and itraconazole. The treatment with corticosteroids for prolonged periods of time, or repeatedly for exacerbations of allergic bronchopulmonary aspergillosis, may lead to many adverse effects. The monoclonal anti-IgE antibody, omalizumab, has improved asthma control in severely allergic asthmatics. The drug is given as a subcutaneous injection every two to four weeks. Since allergic bronchopulmonary aspergillosis is also a condition resulting from hypersensitivity to specific allergens, as in asthma, it may be a candidate for therapy using anti-IgE antibodies. Therefore, anti-IgE therapy, using agents like omalizumab, may be a potential therapy for allergic bronchopulmonary aspergillosis in people with cystic fibrosis. This is an updated version of the review.
OBJECTIVES: To evaluate the efficacy and adverse effects of anti-IgE therapy for allergic bronchopulmonary aspergillosis in people with cystic fibrosis.
SEARCH METHODS: We searched the Cochrane Cystic Fibrosis Trials Register, compiled from electronic database searches and handsearching of journals and conference abstract books. We also searched the reference lists of relevant articles and reviews. Last search: 29 September 2017.We searched two ongoing trial registries (Clinicaltrials.gov and the WHO trials platform). Date of latest search: 24 January 2018.
SELECTION CRITERIA: Randomized and quasi-randomized controlled trials comparing anti-IgE therapy to placebo or other therapies for allergic bronchopulmonary aspergillosis in people with cystic fibrosis.
DATA COLLECTION AND ANALYSIS: Two review authors independently extracted data and assessed the risk of bias in the included study. They planned to perform data analysis using Review Manager.
MAIN RESULTS: Only one study enrolling 14 participants was eligible for inclusion in the review. The double-blind study compared a daily dose of 600 mg omalizumab or placebo along with twice daily itraconazole and oral corticosteroids, with a maximum daily dose of 400 mg. Treatment lasted six months but the study was terminated prematurely and complete data were not available. We contacted the study investigator and were told that the study was terminated due to the inability to recruit participants into the study despite all reasonable attempts.

One or more serious side effects were encountered in six out of nine (66.67%) and one out of five (20%) participants in omalizumab group and placebo group respectively.
AUTHORS' CONCLUSIONS: There is lack of evidence for the efficacy and safety of anti-IgE (omalizumab) therapy in people with cystic fibrosis and allergic bronchopulmonary aspergillosis. There is a need for large prospective randomized controlled studies of anti-IgE therapy in people with cystic fibrosis and allergic bronchopulmonary aspergillosis with both clinical and laboratory outcome measures such as steroid requirement, allergic bronchopulmonary aspergillosis exacerbations and lung function.

DOI: 10.1002/14651858.CD010288.pub4
PMID: 29551015 [Indexed for MEDLINE]

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Bloodstream infections are associated with high morbidity and mortality with rates varying from 10-25% and higher. Appropriate and timely onset of antibiotic therapy influences the prognosis of these patients. It requires the diagnostic accuracy which is not afforded by current gold standards such as blood culture. Moreover, the time from blood sampling to blood culture results is a key determinant of reducing mortality. No established biomarkers exist which can differentiate bloodstream infections from other systemic inflammatory conditions. This calls for studies on biomarkers potential of molecular profiling of plasma as it is affected most by the molecular changes accompanying bloodstream infections. N-glycosylation is a post-translational modification which is very sensitive to changes in physiology. Here we have performed targeted quantitative N-glycoproteomics from plasma samples of patients with confirmed positive blood culture together with age and sex matched febrile controls with negative blood culture reports. Three hundred and sixty eight potential N-glycopeptides were quantified by mass spectrometry and 149 were further selected for identification. Twenty four N-glycopeptides were identified with high confidence together with elucidation of the peptide sequence, N-glycosylation site, glycan composition and proposed glycan structures. Principal component analysis, orthogonal projections to latent structures-discriminant analysis (S-Plot) and self-organizing maps clustering among other statistical methods were employed to analyze the data. These methods gave us clear separation of the two patient classes. We propose high-confidence N-glycopeptides which have the power to separate the bloodstream infections from blood culture negative febrile patients and shed light on host response during bacteremia. Data are available via ProteomeXchange with identifier PXD009048.

DOI: 10.1371/journal.pone.0195006
PMCID: PMC5875812
PMID: 29596458 [Indexed for MEDLINE]

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Migraine surgery has been recently reported as an alternative to medical management to provide long-term relief in migraine sufferers. A prospective study was designed wherein patients diagnosed with migraine were screened for surgery by injecting botulinum toxin type A at the primary trigger site. Surgery

consisted of corrugator supercilii muscle resection to decompress supra-trochlear and supra-orbital nerves with avulsion of zygomaticotemporal branch of trigeminal nerve. Using pre and postsurgery questionnaires, information regarding the degree of reduction of migraines with regard to severity and frequency; and surgical site problems was acquired. Thirty patients volunteered for migraine surgery. Mean migraine headaches reduced from 15.2±6.3 episodes per month to 1.9±2.4 episodes per month (P<0.0001) postsurgery. The mean intensity of migraine headache also reduced from a preoperative 7.3±3.5 to a postoperative of 1.3±1.4 (P<0.0001). Fourteen (46.7%) patients reported complete elimination of migraine after surgery while an equal number reported significant relief of symptoms. Two (6.6%) patients failed to notice any significant improvement after surgery. The mean follow-up period was 11.1±2 months with no major surgical complications. Results of the authors' study confirm prior published results that surgical treatment of migraine is a reality. Surgeons can easily incorporate this simple surgical procedure in their armamentarium to offer relief to numerous migraine patients.

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PMID: 29068972 [Indexed for MEDLINE]

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Pompe disease (PD) is a lysosomal storage disorder characterized by glycogen accumulation in muscle, with infantile-onset (IOPD) and late-onset (LOPD) types. Nineteen cases of PD were diagnosed over a 14-year period on muscle biopsy by ultrastructural examination. Pools of glycogen (intralysosomal and cytoplasmic) and excessive phagocytosis were seen in myofibers on electron microscopy. Glycogen was noted in endothelial cells in IOPD. Although PD accounts for a small fraction of muscle diseases, timely accurate diagnosis is imperative as it is treatable. Ultrastructural examination is necessary to confirm the diagnosis in cases with non-diagnostic light microscopic features, especially in adult LOPD patients.

DOI: 10.1080/01913123.2018.1447624
PMID: 29565761

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Prognosis of a horizontal mid-root fracture is favorable, primarily because the dental pulp tends to maintain its vitality and the fracture segments are completely intraalveolar. Healing usually occurs with deposition of calcified tissue. However, if the segment coronal to the fracture becomes nonvital and

infected, healing occurs by interposition of granulation tissue. This report describes a case of a horizontal mid-root fracture in a right maxillary central incisor tooth, where the apical fractured segment was significantly displaced in a linear direction. This was attributed to the pressure generated from the expanding granulomatous tissue that was interpositioned between the fractured segments. This resulted in an atypical radiographic presentation. In addition, this report highlights the role of cone-beam computed tomography in the diagnosis, treatment planning, and management of root fractures.

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PMCID: PMC5890420
PMID: 29674832

Conflict of interest statement: There are no conflicts of interest.

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Enteric fever continues to be a major cause of mortality and morbidity globally, particularly in poor resource settings. Lack of rapid diagnostic assays is a major driving factor for the empirical treatment of enteric fever. In this work, a rapid and sensitive method 'Miod' 'has been developed. Miod includes a magnetic nanoparticle-based enrichment of target bacterial cells, followed by cell lysis and loop-mediated isothermal amplification (LAMP) of nucleic acids for signal augmentation along with concurrent measurement of signal via an in-situ optical detection system. To identify positive/negative enteric fever infections in clinical blood samples, the samples were processed using Miod at time = 0 hours and time = 4 hours post-incubation in blood culture media. Primers specific for the STY2879 gene were used to amplify the nucleic acids isolated from S. typhi cells. A limit of detection of 5 CFU/mL was achieved. No cross-reactivity of the primers were observed against 106 CFU/mL of common pathogenic bacterial species found in blood such as E. coli, P. aeruginosa, S. aureus, A. baumanni, E. faecalis, S. Paratyphi A and K. pneumonia. Miod was tested on 28 human clinical blood samples. The detection of both pre-and post-four-hours incubation confirmed the presence of viable S. typhi cells and allowed clinical correlation of infection. The positive and negative samples were successfully detected in less than 6 hours with 100% sensitivity and specificity.

DOI: 10.1371/journal.pone.0194817
PMCID: PMC5874042
PMID: 29590194 [Indexed for MEDLINE]

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Epithelioid glioblastoma (e-gbm) is a recently described variant of glioblastoma (GBM) which is associated with short survival and now added as a provisional entity to WHO 2016 classification of CNStumors. About half of these tumors show characteristic BRAF-V600E mutation. However, unlike conventional GBMs, e-gbm lack specific diagnostic and prognostic markers. Hence, we aimed to molecularly characterize these tumors. An extensive review of literature was performed.In a

multi-institutional effort, all the cases of glioblastoma of year 2017 were reviewed. Cases with predominant epithelioid morphology were analysed. Seven cases of e-gbm (adults:4 and pediatric: 3) were identified. Duration of symptoms varied from 2 weeks to one month. Radiologically, all cases were supratentorial, contrast enhancing with solid and cystic appearance. Majority of the cases were immunopositive for GFAP (71%), EMA (71%), S100 (71%) and vimentin (85%). All the cases showed ATRX, INI-1 and H3K27me3 expression. BRAFV600Emutation was seen in 28% of cases. TERT mutation was seen in 40% cases, while one case showed EGFR amplification. H3F3A mutations and PTEN deletions were seen in none. Although e-gbms are rare, epithelioid morphology of a CNS tumor in a young adult or children with areas of necrosis needs thorough histomorphological and genetic workup.

DOI: 10.1016/j.prp.2018.03.019
PMID: 29615337

72: Khanna K, Sharma S, Gupta DK. Hydrometrocolpos etiology and management: past beckons the present. Pediatr Surg Int. 2018 Mar;34(3):249-261. doi: 10.1007/s00383-017-4218-9. Epub 2017 Nov 24. Review. PubMed PMID: 29177625.

Hydrometrocolpos is a rare condition in which the uterus and the vagina are grossly distended with a retained fluid other than pus or blood. It may present during the neonatal period or later at puberty. Most cases reported earlier were stillbirths and were diagnosed only on autopsy. Antenatal diagnosis is now possible with the advent of ultrasound. An early diagnosis and speedy management is the key to survival. Many previous case reports have focused on the varied clinical presentations, multiple causes, associated syndromes and/or the radiological diagnosis of this condition. However, management options for different types of hydrometrocolpos have not yet been concisely discussed. We have reviewed the literature and tried to summarize the management options applicable to most case scenarios of hydrometrocolpos.

DOI: 10.1007/s00383-017-4218-9
PMID: 29177625 [Indexed for MEDLINE]

73: Khanna V, Khanna K, Srinivas M. Total midgut duplication: a ticking time bomb. BMJ Case Rep. 2018 Mar 15;2018. pii: bcr-2017-223848. doi: 10.1136/bcr-2017-223848. PubMed PMID: 29545441.

A day-old neonate presented with bowel obstruction and an abdominal mass. Exploratory laparotomy revealed complete tubular midgut duplication from duodeno-jejunal junction up to terminal ileum which was communicating with the ileum distally. At the proximal end, another 5×5 cm duplication cyst was identified and excised. Postoperatively, complaints were relieved. During follow-up, 99m-Tc-pertechnetate-SPECT scan showed ectopic gastric mucosa in lower abdomen and in the right hemithorax. CECT-chest showed a 3×3 cm foregut duplication cyst, but there were no respiratory symptoms. While being planned for an elective surgery, he presented at 6 months of age in emergency with massive bleed per-rectum and shock. He underwent Wrenn procedure without any injury to the normal bowel. The thoracic foregut duplication cyst was excised later. Total midgut duplication, though benign, may present with life-threatening haemorrhage if left untreated. Presence of one such lesion warrants a search for others. Mucosal stripping is a simple and safe alternate to resection.

DOI: 10.1136/bcr-2017-223848
PMID: 29545441

Conflict of interest statement: Competing interests: None declared.

74: Khilnani GC, Tiwari P. Air pollution in India and related adverse respiratory health effects: past, present, and future directions. Curr Opin Pulm Med. 2018 Mar;24(2):108-116. doi: 10.1097/MCP.0000000000000463. PubMed PMID: 29300211.

PURPOSE OF REVIEW: The review describes current status of air pollution in India, summarizes recent research on adverse health effects of ambient and household air pollution, and outlines the ongoing efforts and future actions required to improve air quality and reduce morbidity and mortality because of air pollution in India.
RECENT FINDINGS: Global burden of disease data analysis reveals more than one million premature deaths attributable to ambient air pollution in 2015 in India. More than one million additional deaths can be attributed to household air pollution. Particulate matter with diameter 2.5μm or less has been causatively linked with most premature deaths. Acute respiratory tract infections, asthma, chronic obstructive pulmonary disease, exacerbations of preexisting obstructive airway disease and lung cancer are proven adverse respiratory effects of air pollution. Targeting air quality standards laid by WHO can significantly reduce morbidity and mortality because of air pollution in India.
SUMMARY: India is currently exposed to high levels of ambient and household air pollutants. Respiratory adverse effects of air pollution are significant contributors to morbidity and premature mortality in India. Substantial efforts are being made at legislative, administrative, and community levels to improve air quality. However, much more needs to be done to change the 'status quo' and attain the target air quality standards. VIDEO ABSTRACT: http://links.lww.com/COPM/A24.

DOI: 10.1097/MCP.0000000000000463
PMID: 29300211

75: Khokhar S, Pillay G, Agarwal E. Pediatric Cataract - Importance of Early Detection and Management. Indian J Pediatr. 2018 Mar;85(3):209-216. doi: 10.1007/s12098-017-2482-2. Epub 2017 Nov 9. Review. PubMed PMID: 29119464.

Pediatric cataract is often diagnosed and managed late. This delay may be due to the ignorance on the part of the community, financial constraints, delay in the diagnosis and lack of tertiary care facilities. There is an urgent need to include rubella vaccination in the universal immunization program. A Simple Red Reflex test to detect a cataract and guiding the parent for early intervention will go a long way in achieving the target of eliminating cataract as a cause of childhood blindness. The importance of early detection and quick referral to a multispecialty center can save the child of lot many blind-years. These children have the potential to achieve the best possible visual acuity if managed early.

DOI: 10.1007/s12098-017-2482-2
PMID: 29119464

76: Khokhar S, Pillay G, Sen S, Agarwal E. Clinical spectrum and surgical outcomes in spherophakia: a prospective interventional study. Eye (Lond). 2018 Mar;32(3):527-536. doi: 10.1038/eye.2017.229. Epub 2017 Nov 3. PubMed PMID: 29099498; PubMed Central PMCID: PMC5848272.

PurposeTo study the varied clinical presentations of patients with spherophakia, their management using surgical methods, and the clinical outcomes.Patients and methodsA prospective interventional study of 13 patients of spherophakia who presented to us from January 2014 and were followed up over the course of their treatment, and the data were documented for analysis.ResultsIn all, 26 eyes of 13 patients were reviewed and the median age of presentation was 12±12.05 years. All patients had a bilateral presentation with 22 eyes having lenticular myopia with a mean refractive error of -11.5±12.945 DS. Ten eyes presented with glaucoma of

which six had raised intraocular pressure (IOP) >21 mm Hg. A total of 23 eyes underwent lens extraction for dislocation/subluxation. Lens extraction helped lower overall IOP. Refractive rehabilitation was done with ACIOL, posterior chamber intraocular lens (PCIOL) with capsular tension ring, and scleral-fixated intraocular lens (SFIOL) in respective cases with ACIOLs being the most commonly used option.ConclusionsSpherophakia is a rare condition, which exhibits a varying degree of lenticular myopia, glaucoma, and subluxation of the crystalline lens. Lensectomy with proper rehabilitation using ACIOL, PCIOL, or SFIOL is a method of managing subluxation and unacceptable myopia. Lensectomy may also be a viable option of controlling glaucoma alongside medications and glaucoma surgery for the management of glaucoma in such cases.

DOI: 10.1038/eye.2017.229
PMCID: PMC5848272 [Available on 2019-03-01]
PMID: 29099498

77: Kilambi R, Singh AN. Duct-to-mucosa versus dunking techniques of pancreaticojejunostomy after pancreaticoduodenectomy: Do we need more trials? A systematic review and meta-analysis with trial sequential analysis. J Surg Oncol. 2018 Apr;117(5):928-939. doi: 10.1002/jso.24986. Epub 2018 Mar 25. Review. PubMed PMID: 29575015.

BACKGROUND: Pancreaticojejunostomy (PJ is the most widely used reconstruction technique after pancreaticoduodenectomy. Despite several randomized trials, the ideal technique of pancreaticojejunostomy remains debatable. We planned a meta-analysis of randomized trials comparing the two most common techniques of PJ (duct-to-mucosa and dunking) to identify the best available evidence in the current literature.
METHODS: We searched the Pubmed/Medline, Web of science, Science citation index, Google scholar and Cochrane Central Register of Controlled Trials electronic databases till October 2017 for all English language randomized trials comparing the two approaches. Statistical analysis was performed using Review Manager (RevMan), Version 5.3. Copenhagen: The Nordic Cochrane Center, The Cochrane Collaboration, 2014 and results were expressed as odds ratio for dichotomous and mean difference for continuous variables. P-value ≤ 0.05 was considered significant. Trial sequential analysis was performed using TSA version 0.9.5.5 (Copenhagen: The Copenhagen Trial Unit, Center for Clinical Intervention Research, 2016).
RESULTS: A total of 8 trials were included, with a total of 1043 patients (DTM: 518; Dunking: 525). There was no significant difference between the two groups in terms of overall as well as clinically relevant POPF rate. Similarly, both groups were comparable for the secondary outcomes. Trial sequential analysis revealed that the required information size had been crossed without achieving a clinically significant difference for overall POPF; and though the required information size had not been achieved for CR-POPF, the current data has already crossed the futility line for CR-POPF with a 10% risk difference, 80% power and 5% α error.
CONCLUSION: This meta-analysis found no significant difference between the two techniques in terms of overall and CR-POPF rates. Further, the existing evidence is sufficient to conclude lack of difference and further trials are unlikely to result in any change in the outcome. (CRD42017074886).

DOI: 10.1002/jso.24986
PMID: 29575015 [Indexed for MEDLINE]

78: Krishnamurthy A, Vishnu VY, Hamide A. Clinical signs in hypothyroidism-myoedema and Woltman sign. QJM. 2018 Mar 1;111(3):193. doi: 10.1093/qjmed/hcx205. PubMed PMID: 29194553.

79: Kumar P, Kumar V, Ravani R, Agarwal S. Subretinal tissue plasminogen-assisted vitrectomy for posttraumatic full-thickness macular hole with submacular hemorrhage. Indian J Ophthalmol. 2018 Mar;66(3):474-476. doi: 10.4103/ijo.IJO_815_17. PubMed PMID: 29480275; PubMed Central PMCID: PMC5859619.

A young male presented with diminution of vision left eye, attributable to full-thickness macular hole, and submacular hemorrhage, following closed globe injury 2 weeks ago. The patient was managed successfully with 25-gauge vitrectomy, subretinal injection of tissue plasminogen activator and aspiration of liquefied blood through the macular hole, internal limiting membrane peeling, short-acting gas tamponade, and prone positioning. This resulted in good visual improvement, type 1 macular hole closure, and restoration of foveal architecture. The outcome and rationale of treatment in this unique scenario is discussed.

DOI: 10.4103/ijo.IJO_815_17
PMCID: PMC5859619
PMID: 29480275 [Indexed for MEDLINE]

80: Kumar P, Misra P, Thakur CP, Saurabh A, Rishi N, Mitra DK. T cell suppression in the bone marrow of visceral leishmaniasis patients: impact of parasite load. Clin Exp Immunol. 2018 Mar;191(3):318-327. doi: 10.1111/cei.13074. Epub 2017 Nov 20. PubMed PMID: 29058314; PubMed Central PMCID: PMC5801524.

Visceral leishmaniasis (VL) is a disseminated and lethal disease of reticulo-endothelial system caused by protozoan parasites Leishmania donovani and L. infantum, which are known to induce host T cell suppression. To understand the impact of parasite load on T cell function, the present was focused on parasite load with T cell function in bone marrow of 26 VL patients. We observed significant enrichment of forkhead box protein 3 (FoxP3)+ (P = 0·0003) and interleukin (IL)-10+ FoxP3+ regulatory T cells (Treg) (P = 0·004) in the bone marrow (BM) of patients with high parasite load (HPL) compared with low parasite load (LPL). Concordantly, T effector cells producing interferon (IFN)-γ (P = 0·005) and IL-17A (P = 0·002) were reduced in the BM of HPL. Blocking of Treg -cell derived suppressive cytokines [(IL-10 and transforming growth factor (TGF)-β] rescued the effector T cells and their functions. However, it was observed that TGF-β levels were dominant, favouring Treg cell differentiation. Furthermore, the low ratio of IL-6/TGF-β favours the suppressive milieu in HPL patients. Here we show the change in levels of various cytokines with the parasitic load during active VL, which could be helpful in devising newer immunotherapeutic strategies against this disease.

DOI: 10.1111/cei.13074
PMCID: PMC5801524 [Available on 2019-03-01]
PMID: 29058314

81: Kumar P, Jain M, Kalsi AK, Halder A. Molecular characterisation of a case of dicentric Y presented as nonobstructive azoospermia with testicular early maturation arrest. Andrologia. 2018 Mar;50(2). doi: 10.1111/and.12886. Epub 2017 Aug 24. PubMed PMID: 28836280.

The dicentric Y chromosome is the most common cytogenetically visible structural abnormality of Y chromosome. The sites of break and fusion of dicentric Y are variable, but break and fusion at Yq12 (proximal to the pseudoautosomal region 2/PAR 2) is very rare. Dicentric Y chromosome is unstable during cell division and likely to generate chromosomal mosaicism. Here, we report a case of infertile male with nonmosaic 46,XY where chromosome Y was dicentric with break and fusion at Yq12 (proximal to PAR 2). Clinical presentation of the case was nonobstructive azoospermia due to early maturation arrest at the primary spermatocyte stage. Various molecular techniques such as FISH, STS-PCR and DNA microarray were carried out to characterise genetic defect leading to testicular maturation

arrest in the patient. The break and fusion was found at Yq12 (proximal to PAR 2) and resulted in near total duplication of Y chromosome (excluding PAR 2). The reason for maturation arrest seems due to CNVs of PARs (gain in PAR 1 and loss of PAR 2) and azoospermia factors (gain).

DOI: 10.1111/and.12886
PMID: 28836280

82: Kumawat D, Kumar V. Resolution of arterial aneurysms in idiopathic retinal vasculitis, aneurysms and neuroretinitis: a case report and review of literature. Int Ophthalmol. 2018 Mar 28. doi: 10.1007/s10792-018-0913-3. [Epub ahead of print] PubMed PMID: 29594790.

PURPOSE: To report a case of resolution of retinal arterial aneurysms in a patient of idiopathic retinal vasculitis, aneurysms and neuroretinitis (IRVAN) treated with oral steroids.
METHODS: This study contains case report and review of literature.
RESULTS: A 16-year-old girl with stage 2 IRVAN was treated with oral steroids alone. Fluorescein angiography confirmed the presence of aneurysms and absence of neovascularization in both eyes. The aneurysms resolved gradually over 4-month follow-up.
CONCLUSIONS: This case demonstrates previously unreported reversibility of arterial aneurysms with steroid therapy alone in early stages of IRVAN.

DOI: 10.1007/s10792-018-0913-3
PMID: 29594790

83: Kusuma YS, Kaushal S, Sundari AB, Babu BV. Access to childhood immunisation services and its determinants among recent and settled migrants in Delhi, India. Public Health. 2018 May;158:135-143. doi: 10.1016/j.puhe.2018.03.006. Epub 2018 Mar 27. PubMed PMID: 29602525.

OBJECTIVES: Childhood immunisation is one of the important public health interventions, and poor migrants are vulnerable to forego these services. The objective of the study is to understand the access of childhood immunisation services to the socio-economically disadvantaged migrants and the determinants of full immunisation uptake up to the age of 1 year.
METHODS: In a cross-sectional survey, 458 migrant households with a child aged up to 2 years were identified. Data on sociodemographics, migration history, receipt of various vaccines and maternal healthcare services were collected through interviewer-administered pretested questionnaires. Multiple logistic regression analysis was performed to identify the determinants of full immunisation status.
RESULTS: Childhood immunisation coverage rates were low as only 31% of recent-migrant children and 53% of settled-migrant children were fully immunised against seven vaccine-preventable diseases (VPDs) by 12 months of age. Lack of awareness of the immunisation schedule and location of health facilities, mobility, illness of the child, fear of vaccines and side-effects were the main reasons for incomplete or no immunisation. Mother's educational attainment, TV viewership, hospital birth and receipt of information on childhood immunisation from the health workers during postnatal visits increased chances of getting the child fully immunised against seven VPDs by 1 year of age.
CONCLUSION: The migrants, particularly the recent migrants, are at the risk of foregoing immunisation services because of livelihood insecurity, mobility and non-familiarity of services in the new urban environment. There is a need to deliver services with a focus on recent migrants. Investing in education and socio-economic development and providing secured livelihoods and equitable services are important to improve and sustain access to healthcare services in the long run.

DOI: 10.1016/j.puhe.2018.03.006
PMID: 29602525 [Indexed for MEDLINE]

84: M N, Pandey RK, Sharma A, Darlong V, Punj J, Sinha R, Singh PM, Hamshi N, Garg R, Chandralekha C, Srivastava A. Pectoral nerve blocks to improve analgesia after breast cancer surgery: A prospective, randomized and controlled trial. J Clin Anesth. 2018 Mar;45:12-17. doi: 10.1016/j.jclinane.2017.11.027. Epub 2017 Dec 11. PubMed PMID: 29241077.

STUDY OBJECTIVE: To evaluate the analgesic efficacy of ultrasound guided combined pectoral nerve blocks I and II in patients scheduled for surgery for breast cancer.
DESIGN: Prospective, randomized, control trial.
SETTING: Operating rooms in a tertiary care hospital of Northern India.
PATIENTS: Sixty American Society of Anesthesiologists status I to II adult women, aged 18-70years were enrolled in this study.
INTERVENTIONS: Patients were randomized into two groups (30 patients in each group), PECS (P) group and control (C) group. In group P, patients received both general anesthesia and ultrasound guided combined pectoral nerve blocks (PECS I and II). In group C, patients received only general anesthesia.
MEASUREMENTS: We noted pain intensity at rest and during abduction of the ipsilateral upper limb, incidence of postoperative nausea and vomiting; patient's satisfaction with postoperative analgesia and maximal painless abduction at different time intervals in both groups.
MAIN RESULTS: There was significant decrease in the total amount of fentanyl requirement in the in P group {(140.66±31.80μg) and (438±71.74μg)} in comparison to C group {(218.33±23.93μg) and (609±53.00μg)} during intraoperative and post-operative period upto 24h respectively. The time to first analgesic requirement was also more in P group (44.33±17.65min) in comparison to C group (10.36±4.97min) during post-operative period. There was less limitation of shoulder movement (pain free mobilization) on the operative site at 4h and 5h after surgery in P group in comparison to C group. However there was no difference in the incidence of post-operative nausea and vomiting (22 out of 30 patients in group P and 20 out of 30 patients in group C) but patients in group P had a better satisfaction score with postoperative analgesia than C group having a p value of <0.001(Score 1; 5 VS 20; Score 2; 12 VS 9; Score 3; 13 VS 1).
CONCLUSIONS: Ultrasound guided combined pectoral nerve blocks are an effective modality of analgesia for patients undergoing breast surgeries during perioperative period.
CLINICAL TRIAL REGISTRATION: CTRI/2015/12/006457.

DOI: 10.1016/j.jclinane.2017.11.027
PMID: 29241077

85: Madaan P, Jauhari P, Gupta A, Chakrabarty B, Gulati S. A quinidine non responsive novel KCNT1 mutation in an Indian infant with epilepsy of infancy with migrating focal seizures. Brain Dev. 2018 Mar;40(3):229-232. doi: 10.1016/j.braindev.2017.09.008. Epub 2017 Oct 14. PubMed PMID: 29037447.

Epilepsy of infancy with migrating focal seizures {a.k.a malignant migrating partial seizures of infancy (MMPSI)} is an uncommon epileptic encephalopathy with a poor prognosis. Migrating focal seizures with autonomic features, developmental stagnation and refractoriness to treatment are its key features. It is caused by genetic defects in various ion channels, most common being sodium activated potassium channel (KCNT1), found in up to 50% of cases. With advent of genetic diagnosis and precision medicine, many targeted therapies have been identified. Antagonist of KCNT1 coded ion channel like Quinidine has shown promising results in MMPSI. Here we report first mutation proven case of MMPSI from India. This

child had a novel heterozygous missense mutation in exon10 of the KCNT1 gene (chr9:138650308; c.808C>C/G (p.Q270E)) which was pathogenic. Neither quinidine nor ketogenic diet could control his seizures. Ultimately, the child succumbed to his illness at nine months of age.

DOI: 10.1016/j.braindev.2017.09.008
PMID: 29037447 [Indexed for MEDLINE]

86: Madan K, Mohan A, Agarwal R, Hadda V, Khilnani GC, Guleria R. A survey of flexible bronchoscopy practices in India: The Indian bronchoscopy survey (2017). Lung India. 2018 Mar-Apr;35(2):98-107. doi: 10.4103/lungindia.lungindia_417_17. PubMed PMID: 29487243; PubMed Central PMCID: PMC5846281.

Background: There is a lack of contemporaneous data on the practices of flexible bronchoscopy in India.
Aim: The aim of the study was to study the prevalent practices of flexible bronchoscopy across India.
Methods: The "Indian Bronchoscopy Survey" was a 98-question, online survey structured into the following sections: general information, patient preparation and monitoring, sedation and topical anesthesia, procedural/technical aspects, and bronchoscope disinfection/staff protection.
Results: Responses from 669 bronchoscopists (mean age: 40.2 years, 91.8% adult pulmonologists) were available for analysis. Approximately, 70,000 flexible bronchoscopy examinations had been performed over the preceding year. A majority (59%) of bronchoscopists were performing bronchoscopy without sedation. A large number (45%) of bronchoscopists had learned the procedure outside of their fellowship training. About 55% used anticholinergic premedication either as a routine or occasionally. Nebulized lignocaine was being used by 72%, while 24% utilized transtracheal administration of lignocaine. The most commonly (75%) used concentration of lignocaine was 2%. Midazolam with or without fentanyl was the preferred agent for intravenous sedation. The use of video bronchoscope was common (80.8%). The most common (94%) route for performing bronchoscopy was nasal. Conventional transbronchial needle aspiration (TBNA) was being performed by 74%, while 92% and 78% performed endobronchial and transbronchial lung biopsy, respectively. Therapeutic airway interventions (stents, electrocautery, cryotherapy, and others) were being performed by 30%, while endobronchial ultrasound guided transbronchial needle aspiration (EBUS-TBNA) and rigid bronchoscopy were performed by 27% and 19.5%, respectively.
Conclusion: There is a wide national variation in the practices of performing flexible bronchoscopy. However, there has been a considerable improvement in bronchoscopy practices compared to previous national surveys.

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PMCID: PMC5846281
PMID: 29487243

Conflict of interest statement: There are no conflicts of interest.

87: Maitra S, Som A, Bhattacharjee S. Accuracy of quick Sequential Organ Failure Assessment (qSOFA) score and systemic inflammatory response syndrome (SIRS) criteria for predicting mortality in hospitalized patients with suspected infection: a meta-analysis of observational studies. Clin Microbiol Infect. 2018 Mar 29. pii: S1198-743X(18)30294-5. doi: 10.1016/j.cmi.2018.03.032. [Epub ahead of print] Review. PubMed PMID: 29605565.

OBJECTIVE: To identify sensitivity, specificity and predictive accuracy of quick sequential organ failure assessment (qSOFA) score and systemic inflammatory response syndrome (SIRS) criteria to predict in-hospital mortality in hospitalized patients with suspected infection.

METHODS: This meta-analysis followed the Meta-analysis of Observational Studies in Epidemiology (MOOSE) group consensus statement for conducting and reporting the results of systematic review. PubMed and EMBASE were searched for the observational studies which reported predictive utility of qSOFA score for predicting mortality in patients with suspected or proven infection with the following search words: 'qSOFA', 'q-SOFA', 'quick-SOFA', 'Quick Sequential Organ Failure Assessment', 'quick SOFA'. Sensitivity, specificity, area under receiver operating characteristic (ROC) curves with 95% confidence interval (CI) of qSOFA and SIRS criteria for predicting in-hospital mortality was collected for each study and a 2 × 2 table was created for each study.
RESULTS: Data of 406 802 patients from 45 observational studies were included in this meta-analysis. Pooled sensitivity (95% CI) and specificity (95% CI) of qSOFA ≥2 for predicting mortality in patients who were not in an intensive care unit (ICU) was 0.48 (0.41-0.55) and 0.83 (0.78-0.87), respectively. Pooled sensitivity (95% CI) of qSOFA ≥2 for predicting mortality in patients (both ICU and non-ICU settings) with suspected infection was 0.56 (0.47-0.65) and pooled specificity (95% CI) was 0.78 (0.71-0.83).
CONCLUSION: qSOFA has been found to be a poorly sensitive predictive marker for in-hospital mortality in hospitalized patients with suspected infection. It is reasonable to recommend developing another scoring system with higher sensitivity to identify high-risk patients with infection.

DOI: 10.1016/j.cmi.2018.03.032
PMID: 29605565

88: Malhotra S, Vashist P, Kalaivani M, Gupta N, Senjam SS, Rath R, Gupta SK. Prevalence and causes of visual impairment amongst older adults in a rural area of North India: a cross-sectional study. BMJ Open. 2018 Mar 17;8(3):e018894. doi: 10.1136/bmjopen-2017-018894. PubMed PMID: 29550774; PubMed Central PMCID: PMC5875657.

OBJECTIVES: To determine the prevalence, causes and associated factors for visual impairment (VI) in rural population of Jhajjar district, Haryana, north India.
METHODS: A community-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 50 years and above were selected using compact segment cluster sampling approach. Presenting visual acuity using LogMAR E chart was measured along with collection of other demographic details as part of the house-to-house survey. Subjective refraction and torch light examination were performed at a clinic site within the village to ascertain VI and its cause. VI was considered when presenting visual acuity was less than 6/18 in the better eye. Common causes of VI viz uncorrected refractive errors, cataract, central corneal opacity and others were noted by optometrists. Descriptive analysis was undertaken. Multivariate logistic regression analysis was performed for determining associated factors with VI.
RESULTS: Out of 2025 enumerated adults, 1690 (83.5%) were examined at the household level and 1575 (78%) completed all study procedures. The prevalence of VI was found to be 24.5% (95% CI 21.1 to 26.3) and blindness was 5% (95% CI 3.9 to 6.1). The most common causes of VI were uncorrected refractive errors (50%) and cataract (37%). The VI in study participants was found to be associated with age, gender, marital and educational status.
CONCLUSIONS: VI is still a public health problem in rural population of Jhajjar district, Haryana. Provision of spectacles and cataract surgical services are simple interventions to address this issue.

DOI: 10.1136/bmjopen-2017-018894
PMCID: PMC5875657
PMID: 29550774

Conflict of interest statement: Competing interests: None declared.

89: Malik R. The Role of Zinc in Childhood Infectious Disease. Indian J Pediatr. 2018 Mar;85(3):166-167. doi: 10.1007/s12098-017-2597-5. Epub 2018 Jan 10. Review. PubMed PMID: 29318528.

90: Mallick S, Benson R, Rath GK. Patterns of care and survival outcomes in patients with an extraventricular neurocytoma: An individual patient data analysis of 201 cases. Neurol India. 2018 Mar-Apr;66(2):362-367. doi: 10.4103/0028-3886.227262. Review. PubMed PMID: 29547155.

Introduction:: Extraventricular neurocytoma is a rare neuronal tumor arising outside the ventricles. However, because of its rarity, its optimum treatment remains undefined.
Materials and Methods: We intended to perform an individual patient data analysis to examine the patterns of care and prognostic factors involved in the treatment of extraventricular neurocytomas. PubMed, SCOPUS, and Google Scholar were searched with the following MeSH terms: "Neurocytoma, Extra ventricular neurocytoma, Spinal neurocytoma AND treatment, Survival" to find all possible publications pertaining to EVN.
Results: From 108 publications, we retrieved 201 patients of extraventricular neurocytoma. Their median age was 30 years (range: 0.6-78 years). Sixty seven patients were in the pediatric (age ≤20 years) age group. There was a bimodal age distribution. Surgical details were available for 132 cases, and 51.5% underwent a gross total resection whereas 41.7% underwent a subtotal resection. Adjuvant radiation was used in 40% cases. For the entire cohort, the median progression free survival was 77 months (53.3-100.7). However, we could not find an impact of any of the prognostic factors on survival.
Conclusion: An extraventricular neurocytoma is a very rare disease with varied presentations and different sites of origin. Gross total resection remains the standard of care. Adjuvant radiation may be used for salvage. However, radiation therapy after subtotal resection of an atypical neurocytoma may be administered.

DOI: 10.4103/0028-3886.227262
PMID: 29547155

Conflict of interest statement: There are no conflicts of interest

91: Mallick S, Benson R, Melgandi W, Giridhar P, Rath GK. Impact of surgery, adjuvant treatment, and other prognostic factors in the management of anaplastic ganglioglioma. Childs Nerv Syst. 2018 Jun;34(6):1207-1213. doi: 10.1007/s00381-018-3780-3. Epub 2018 Mar 29. PubMed PMID: 29594461.

BACKGROUND/PURPOSE: Anaplastic ganglioglioma (AGG) is a rare tumor with both glial and neuronal component accounting for less than 1% of all CNS tumors with limited information about the optimum treatment and outcome of these tumors.
METHOD AND MATERIALS: We did a thorough search of the PubMed with the following MesH terms: "Ganglioglioma; Anaplastic ganglioglioma; Ganglioglioma AND treatment; and Anaplastic ganglioglioma AND survival" to find all possible publications related to AGG to perform an individual patient data analysis and derive the survival outcome and optimum treatment of these tumors.
RESULTS: A total of 56 articles were retrieved pertaining to AGG with 88 patients. However, a total of 40 publications found eligible with 69 patients for individual patient data analysis. Median age for the entire cohort was 16 years (range 0.2-77 years). Surgical details were available for 64 patients. A gross total or near total resection was reported in 21 cases (32.8%), subtotal resection or debulking was reported in 25 cases (39.1%). Surgical details were available for 64 patients. A gross total or near total resection was reported in

21 cases (32.8%), and subtotal resection or debulking was reported in 25 cases (39.1%). Median overall survival (OS) was 29 months [95% CI 15.8-42.2 months] with 2- and 5-year OS 61 and 39.4% respectively.
CONCLUSION: AGG is associated with a dismal. Pediatric age and a gross total resection of tumor confer a better progression-free survival and OS. Hence, surgery should remain the cornerstone of therapy. However, because of modest survival, there is enough opportunity to improve survival with addition of adjuvant radiation and chemotherapy. A whole genome sequencing and molecular characterization would help to derive the best treatment option.

DOI: 10.1007/s00381-018-3780-3
PMID: 29594461

92: Mandal A, Sahi PK. Iron Pots for the Prevention and Treatment of Anemia in Preschoolers: Correspondence. Indian J Pediatr. 2018 Mar 8. doi: 10.1007/s12098-018-2644-x. [Epub ahead of print] PubMed PMID: 29516377.

93: Mankotia DS, Sawarkar DP, Singh PK, Kumar A, Verma SK, Chandra PS, Kale SS. Rare Case of Cerebrospinal Fluid Proctorrhea Caused by Anterior Sacral Meningocele with Rectothecal Fistula. World Neurosurg. 2018 Jun;114:323-325. doi: 10.1016/j.wneu.2018.03.087. Epub 2018 Mar 20. Review. PubMed PMID: 29572171.

BACKGROUND: Anterior sacral meningocele (ASM) leading to secondary rectothecal fistula is extremely rare, and to date only 5 such cases have been described in the world literature.
CASE DESCRIPTION: We describe an uncomplicated case of a 52-year-old female patient presenting with cerebrospinal fluid leak from the anus who was investigated and found to have an ASM with rectothecal fistula. The ASM and rectothecal fistula were subsequently repaired using a posterior approach. Pertinent literature review, clinical findings, neuroimaging, and surgical management are described for these rare lesions.
CONCLUSION: Early diagnosis and surgical disconnection of the fistulous tract led to satisfactory outcome in the present case and avoided the catastrophic complication of meningitis.

DOI: 10.1016/j.wneu.2018.03.087
PMID: 29572171 [Indexed for MEDLINE]

94: Mathur VP, Dhillon JK. Dental Caries: A Disease Which Needs Attention. Indian J Pediatr. 2018 Mar;85(3):202-206. doi: 10.1007/s12098-017-2381-6. Epub 2017 Jun 23. PubMed PMID: 28643162.

Dental caries is one of the most prevalent disease (about 50%) in children across the globe. If not treated in time, it can affect not only the mastication function but also the speech, smile and psychosocial environment and the quality of life of the child and the family. The treatment of dental diseases is very expensive in all countries and prevention is very simple and effective. The caries in children below 6 y is called early childhood caries (ECC). It is most commonly caused by milk bottle or mother's feed during night. The ECC spreads very fast and can cause severe pain, abscess, swelling, fever and psychological disturbances in children. The treatment of ECC requires multiple appointments and still the prognosis is not very promising in mutilated dentitions. A physician or pediatrician can easily identify early caries and habits of parents leading to caries and can counsel them for prevention and refer them to the specialist. Good oral hygiene, dietary modification with respect to use of sugar and sticky food and healthy diet can help in preventing this disease in children. The need of the time is to appraise all on the methods of dental caries prevention.

DOI: 10.1007/s12098-017-2381-6

PMID: 28643162

95: Naalla R, De M, Dawar R, Chauhan S, Singhal M. Thoracoumbilical Flap: Anatomy, Technique, and Clinical Applications in Upper Limb Reconstruction in the Era of Microvascular Surgery. J Hand Microsurg. 2018 Apr;10(1):29-36. doi: 10.1055/s-0038-1630142. Epub 2018 Mar 20. PubMed PMID: 29706734; PubMed Central PMCID: PMC5919790.

Purpose: Microvascular reconstruction is the standard of care for salvage of soft tissue defects in complex upper extremity due to their distinct advantages over the pedicled flaps. However, in the era of microsurgery, pedicled flaps have an acceptable significant role for reconstruction of complex soft tissue defects. The authors aim to demonstrate the versatility of pedicled thoracoumbilical flap (TUF) in selected clinical scenarios.
Patients and Methods: Retrospective analysis of patients who underwent TUF for upper limb posttraumatic reconstruction was performed between January 2016 and October 2017. The demographic details, etiology, wound parameters, clinical circumstances, and complications were recorded.
Results: Ten patients were included in the retrospective case series. Out of them, nine of the patients had critical issues, which justified a pedicled TUF over free flap. The critical issues were severe comorbid illnesses (n = 3), the paucity of recipient vessels (n = 1), salvage of hand replant and revascularization (n = 2), circumferential degloving injury to the multiple fingers and palm (n = 1), coverage for metacarpal hand (n = 1), and extensive scarring at the surgical site (n = 1). Mean age was 34.4 years (range: 11-70 years), six of them were males, and four were females. Two patients had infections resulting in wound gaping. One of the patients had flap tip necrosis.
Conclusion: Pedicled flaps have a significant acceptable role in this era of microsurgery, and a pedicled TUF is a versatile option for coverage of complex soft tissue defects of the forearm, wrist, hand, and fingers.
Level of Evidence: This is a level IV, therapeutic, and retrospective study.

DOI: 10.1055/s-0038-1630142
PMCID: PMC5919790 [Available on 2019-04-01]
PMID: 29706734

96: Narayan R, Agarwal T, Mishra D, Maiti TK, Mohanty S. Goat tendon collagen-human fibrin hydrogel for comprehensive parametric evaluation of HUVEC microtissue-based angiogenesis. Colloids Surf B Biointerfaces. 2018 Mar 1;163:291-300. doi: 10.1016/j.colsurfb.2017.12.056. Epub 2018 Jan 2. PubMed PMID: 29329074.

The cell and extracellular matrix (ECM) interactions play a very important role during angiogenesis. Remodeling of the extracellular matrix along with pro-angiogenic/anti-angiogenic factors, and matrix-degrading proteases, accounts for endothelial cell growth, migration, and tube formation. However, for studying angiogenesis, only limited and expensive biomaterials are available. Despite being biocompatible, inexpensive, and easy availability; the potential of goat tendon collagen (GTC) has never been explored for vascular tissue engineering applications. Hence, the current investigation was focused on evaluating GTC as an alternative matrix for HUVEC microtissue-based angiogenesis. HUVEC microtissues (MTs), synthesized via hanging drop method, were subjected to angiogenesis in GTC-human fibrin (HF) hydrogels. Sprouting tip cells originated from the MTs within 24 h. Further, comprehensive in vitro study and in vivo validation revealed that, endothelial media with FBS and growth factors, 24 h old HUVEC MTs of 500 cells, seeded at 200 aggregates/cm3 in GTC-HF gel of 100 Pa elastic modulus, resulted in most optimal angiogenesis with intact lumen that was stable up to a week, without any supporting cells. Although early to predict, GTC-HF matrix may serve as a potential ECM for engineering complex and functional tissues of clinical relevance.

DOI: 10.1016/j.colsurfb.2017.12.056
PMID: 29329074

97: Neha, Krishna H. Unusual bilateral sensory innervation of the dorsum of hand by lateral antebrachial cutaneous nerve: a case report. Anat Cell Biol. 2018 Mar;51(1):66-69. doi: 10.5115/acb.2018.51.1.66. Epub 2018 Mar 28. PubMed PMID: 29644112; PubMed Central PMCID: PMC5890019.

A 68-year-old male cadaver showed bilateral variation in the sensory innervation of the dorsum of hand. On the dorsum of right hand, first digit and lateral half of second digit were supplied by lateral antebrachial cutaneous nerve (LABCN); medial side of second digit and lateral side of third digit were supplied by superficial branch of radial nerve (SBRN) and medial side of third digit, the fourth and fifth digits were supplied by dorsal cutaneous branch of ulnar nerve (DBUN). On the dorsum of the left hand, lateral side of first digit was supplied by LABCN, medial side of first digit, the second and third digits as well as the lateral side of fourth digit were supplied by SBRN; medial side of fourth digit and fifth digit were supplied by DBUN. These variations would be helpful in understanding peripheral neuropathy, in interpretation of conduction velocity studies and in reconstructive surgery of hand.

DOI: 10.5115/acb.2018.51.1.66
PMCID: PMC5890019
PMID: 29644112

98: Nyamathi A, Ekstrand M, Heylen E, Ramakrishna P, Yadav K, Sinha S, Hudson A, Carpenter CL, Arab L. Relationships Among Adherence and Physical and Mental Health Among Women Living with HIV in Rural India. AIDS Behav. 2018 Mar;22(3):867-876. doi: 10.1007/s10461-016-1631-3. PubMed PMID: 27990577; PubMed Central PMCID: PMC5476510.

We conducted a cross-sectional examination of the physical and psychological factors related to ART adherence among a sample of 400 women living with HIV/AIDS in rural India. Interviewer-administered measures assessed adherence, internalized stigma, depressive symptoms, quality of life, food insecurity, health history and sociodemographic information. CD4 counts were measured using blood collected at screening. Findings revealed that adherence to ART was generally low, with 94% of women taking 50% or less of prescribed medication in past month. Multivariate analyses showed a non-linear association between numbers of self-reported opportunistic infections (OIs) in past 6 months ($p = 0.016$) and adherence, with adherence decreasing with each additional OI for 0-5 OIs. For those reporting more than 5 OIs, the association reversed direction, with increasing OIs beyond 5 associated with greater adherence.

DOI: 10.1007/s10461-016-1631-3
PMCID: PMC5476510 [Available on 2019-03-01]
PMID: 27990577

99: Paliwal S, Chaudhuri R, Agrawal A, Mohanty S. Regenerative abilities of mesenchymal stem cells through mitochondrial transfer. J Biomed Sci. 2018 Mar 30;25(1):31. doi: 10.1186/s12929-018-0429-1. Review. PubMed PMID: 29602309; PubMed Central PMCID: PMC5877369.

The past decade has witnessed an upsurge in studies demonstrating mitochondrial transfer as one of the emerging mechanisms through which mesenchymal stem cells (MSCs) can regenerate and repair damaged cells or tissues. It has been found to play a critical role in healing several diseases related to brain injury, cardiac myopathies, muscle sepsis, lung disorders and acute respiratory disorders. Several studies have shown that various mechanisms are involved in mitochondrial transfer that includes tunnel tube formation, micro vesicle formation, gap junctions, cell fusion and others modes of transfer. Few studies have

investigated the mechanisms that contribute to mitochondrial transfer, primarily comprising of signaling pathways involved in tunnel tube formation that facilitates tunnel tube formation for movement of mitochondria from one cell to another. Various stress signals such as release of damaged mitochondria, mtDNA and mitochondrial products along with elevated reactive oxygen species levels trigger the transfer of mitochondria from MSCs to recipient cells. However, extensive cell signaling pathways that lead to mitochondrial transfer from healthy cells are still under investigation and the changes that contribute to restoration of mitochondrial bioenergetics in recipient cells remain largely elusive. In this review, we have discussed the phenomenon of mitochondrial transfer from MSCs to neighboring stressed cells, and how this aids in cellular repair and regeneration of different organs such as lung, heart, eye, brain and kidney. The potential scope of mitochondrial transfer in providing novel therapeutic strategies for treatment of various pathophysiological conditions has also been discussed.

DOI: 10.1186/s12929-018-0429-1
PMCID: PMC5877369
PMID: 29602309

100: Parveen B, Tripathi M, Vohora D. A Cross-Sectional Study to Assess the Modulation of Wnt Inhibitors following Anti-Epileptic Drug Therapy and their Correlation with Vitamin D and Receptor Activator of Nuclear Factor Î° B Ligand in Indian Women with Epilepsy. Basic Clin Pharmacol Toxicol. 2018 Mar 5. doi: 10.1111/bcpt.12996. [Epub ahead of print] PubMed PMID: 29504704.

Long-term anti-epileptic drug (AED) therapy compromises bone health. Although vitamin D deficiency is proposed to be involved, it alone is not held responsible. This accounts for investigating other mechanisms in bone accrual. Recent studies have shown modulation of inhibitors of wnt pathway, sclerostin and dickkopf-1 (DKK-1), in glucocorticoids-induced osteoporosis. We investigated whether AED monotherapy modulates wnt inhibitors in Indian women with epilepsy. Women of age > 20-40 years with the diagnosis of epilepsy and receiving AEDs (carbamazepine, valproate and levetiracetam) for at least a year were enrolled. The results were compared with age-matched healthy controls with no evidence of metabolic bone disease. Women undergoing treatment with AEDs (mean duration: 50.59 ± 37.929 months) exhibited higher serum sclerostin and receptor activator of nuclear factor κ B ligand (RANKL) and lower vitamin D (25-hydroxy vitamin D) and DKK-1 levels when compared to age-matched healthy controls. Sclerostin showed a positive correlation with RANKL, while DKK-1 presented no such relationship. However, no association was evident after adjusting for age, duration of treatment and total daily dose. Although a correlation between wnt inhibitors and RANKL could not be obtained, AEDs displayed changes in serum levels of wnt inhibitors in persons with epilepsy and hence these drugs may compromise bone health through a disturbance in wnt signalling mechanisms.

DOI: 10.1111/bcpt.12996
PMID: 29504704

101: Passah A, Arora S, Damle NA. Multiple Lytic Lesions on F-18 Fluorodeoxyglucose Positron Emission Tomography/Computed Tomography not Always Metastatic? Indian J Endocrinol Metab. 2018 Mar-Apr;22(2):291-292. doi: 10.4103/ijem.IJEM_32_18. PubMed PMID: 29911050; PubMed Central PMCID: PMC5972493.

102: Paul G, Deshmukh A, Kumar Chourasia B, Kalamuddin M, Panda A, Kumar Singh S, Gupta PK, Mohmmed A, Chauhan VS, Theisen M, Malhotra P. Protein-protein interaction studies reveal the Plasmodium falciparum merozoite surface protein-1 region involved in a complex formation that binds to human erythrocytes. Biochem J. 2018 Mar 29;475(6):1197-1209. doi: 10.1042/BCJ20180017. PubMed PMID: 29511044.

Plasmodium falciparum merozoite surface protein (PfMSP) 1 has been studied extensively as a vaccine candidate antigen. PfMSP-1 undergoes proteolytic processing into four major products, such as p83, p30, p38, and p42, that are associated in the form of non-covalent complex(s) with other MSPs. To delineate MSP1 regions involved in the interaction with other MSPs, here we expressed recombinant proteins (PfMSP-165) encompassing part of p38 and p42 regions and PfMSP-119 PfMSP-165 interacted strongly with PfMSP-3, PfMSP-6, PfMSP-7, and PfMSP-9, whereas PfMSP-119 did not interact with any of these proteins. Since MSP-1 complex binds human erythrocytes, we examined the ability of these proteins to bind human erythrocyte. Among the proteins of MSP-1 complex, PfMSP-6 and PfMSP-9 bound to human erythrocytes. Serological studies showed that PfMSP-165 was frequently recognized by sera from malaria endemic regions, whereas this was not the case for PfMSP-119 In contrast, antibodies against PfMSP-119 showed much higher inhibition of merozoite invasion compared with antibodies against the larger PfMSP-165 fragment. Importantly, anti-PfMSP-119 antibodies recognized both recombinant proteins, PfMSP-119 and PfMSP-165; however, anti-PfMSP-165 antibody failed to recognize the PfMSP-119 protein. Taken together, these results demonstrate that PfMSP-1 sequences upstream of the 19 kDa C-terminal region are involved in molecular interactions with other MSPs, and these sequences may probably serve as a smoke screen to evade antibody response to the membrane-bound C-terminal 19 kDa region.

DOI: 10.1042/BCJ20180017
PMID: 29511044

103: Pramanik R, Tyagi A, Chopra A, Kumar A, Vishnubhatla S, Bakhshi S. Myeloid Sarcoma Predicts Superior Outcome in Pediatric AML; Can Cytogenetics Solve the Puzzle? Clin Lymphoma Myeloma Leuk. 2018 Jun;18(6):e249-e254. doi: 10.1016/j.clml.2018.03.013. Epub 2018 Mar 31. PubMed PMID: 29680411.

BACKGROUND: The purpose of our study was to evaluate the clinical, cytogenetic, and molecular features, and survival outcomes in patients with acute myeloid leukemia (AML) with myeloid sarcoma (MS) and compare them with patients with AML without MS.
PATIENTS AND METHODS: This was a retrospective analysis of de novo pediatric AML patients with or without MS diagnosed at our cancer center between June 2003 and June 2016.
RESULTS: MS was present in 121 of 570 (21.2%), the most frequent site being the orbit. Patients with MS had a younger median age (6 years vs. 10 years) and presented with higher hemoglobin and platelet but lower white blood cell count compared with patients without MS. Further, t (8; 21) ($P < .01$), loss of Y chromosome ($P < .01$), and deletion 9q ($P = .03$) were significantly higher in patients with AML with MS. Event-free survival (EFS; $P = .003$) and overall survival (OS; $P = .001$) were better among patients with AML with MS (median EFS 21.0 months and median OS 37.1 months) compared with those with AML without MS (median EFS 11.2 months and median OS 16.2 months). The t (8; 21) was significantly associated with MS (odds ratio, 3.92). In a comparison of the 4 groups divided according to the presence or absence of MS and t (8; 21), the subgroup of patients having MS without concomitant t (8; 21) was the only group to have a significantly better OS (hazard ratio, 0.53; 95% confidence interval, 0.34-0.82; $P = .005$).
CONCLUSION: Although t (8; 21) was more frequently associated with MS, it did not appear to be the reason for better outcome.

DOI: 10.1016/j.clml.2018.03.013
PMID: 29680411

104: Prasad K, Kumar A, Misra S, Yadav AK, Johri S, Sarkar RS, Gorthi SP, Hassan KM, Prabhakar S, Misra UK, Kumar P; For InveST study group. Reliability and validity of telephonic Barthel Index: an experience from multi-centric randomized control study. Acta Neurol Belg. 2018 Mar;118(1):53-59. doi: 10.1007/s13760-017-0843-2. Epub 2018 Jan 24. PubMed PMID: 29368116.

Telephonic Barthel Index (BI) assessment is less time-consuming and more feasible than a face-to-face interview. The aim of this study was to test the validity as well as reliability of the BI administered by telephone in comparison with face-to-face assessment in a multi-centric study. The study was conducted during the course of a randomized controlled trial in which 120 patients with subacute strokes from five teaching hospitals from different parts of India were recruited. Central telephonic follow-up and face-to-face assessment of BI and modified Rankin Scale (mRS) at 3 and 6 months were done by trained and certified blinded researchers. Kappa or weighted kappa (wK) was estimated. Sensitivity and specificity at various cutoff levels of telephonic BI were calculated. Concurrent validity of the telephonic BI was assessed by correlating it with the mRS and National Institutes of Health Stroke Scales (NIHSS) at 3 and 6 months. We observed high sensitivity and specificity at various cutoff levels of BI. Moderate to substantial agreement was observed between the two methods at 6 months wK 0.72 (95% CI 0.70-0.77). Item-wise and center-wise kappa also reflected substantial agreement. The study shows that telephonic assessment of activities of daily living with the BI in moderate to severely disabled stroke patients is valid and reliable compared to face-to-face assessment. Our study shows that telephonic assessment requires smaller sample size compared to face-to-face assessment of BI.

DOI: 10.1007/s13760-017-0843-2
PMID: 29368116

105: Pratap Mouli V, Kedia S, Ahuja V. Letter: mucosal response in discriminating intestinal tuberculosis from Crohn's disease-when to look for it? Authors' reply. Aliment Pharmacol Ther. 2018 Mar;47(6):860-861. doi: 10.1111/apt.14535. PubMed PMID: 29446137.

106: Prea SM, Kong YXG, Mehta A, He M, Crowston JG, Gupta V, Martin KR, Vingrys AJ. Six-month Longitudinal Comparison of a Portable Tablet Perimeter With the Humphrey Field Analyzer. Am J Ophthalmol. 2018 Jun;190:9-16. doi: 10.1016/j.ajo.2018.03.009. Epub 2018 Mar 14. PubMed PMID: 29550190.

PURPOSE: To establish the medium-term repeatability of the iPad perimetry app Melbourne Rapid Fields (MRF) compared to Humphrey Field Analyzer (HFA) 24-2 SITA-standard and SITA-fast programs.
DESIGN: Multicenter longitudinal observational clinical study.
METHODS: Sixty patients (stable glaucoma/ocular hypertension/glaucoma suspects) were recruited into a 6-month longitudinal clinical study with visits planned at baseline and at 2, 4, and 6 months. At each visit patients undertook visual field assessment using the MRF perimetry application and either HFA SITA-fast (n = 21) or SITA-standard (n = 39). The primary outcome measure was the association and repeatability of mean deviation (MD) for the MRF and HFA tests. Secondary measures were the point-wise threshold and repeatability for each test, as well as test time.
RESULTS: MRF was similar to SITA-fast in speed and significantly faster than SITA-standard (MRF 4.6 ± 0.1 minutes vs SITA-fast 4.3 ± 0.2 minutes vs SITA-standard 6.2 ± 0.1 minutes, P < .001). Intraclass correlation coefficients (ICC) between MRF and SITA-fast for MD at the 4 visits ranged from 0.71 to 0.88. ICC values between MRF and SITA-standard for MD ranged from 0.81 to 0.90. Repeatability of MRF MD outcomes was excellent, with ICC for baseline and the 6-month visit being 0.98 (95% confidence interval: 0.96-0.99). In comparison, ICC at 6-month retest for SITA-fast was 0.95 and SITA-standard 0.93. Fewer points changed with the MRF, although for those that did, the MRF gave greater

point-wise variability than did the SITA tests.
CONCLUSIONS: MRF correlated strongly with HFA across 4 visits over a 6-month period, and has good test-retest reliability. MRF is suitable for monitoring visual fields in settings where conventional perimetry is not readily accessible.

DOI: 10.1016/j.ajo.2018.03.009
PMID: 29550190

107: Pujari A, Bajaj MS, Sharma P. Calibrated Bowman's lacrimal probe. Indian J Ophthalmol. 2018 Mar;66(3):478. doi: 10.4103/ijo.IJO_1063_17. PubMed PMID: 29480277; PubMed Central PMCID: PMC5859621.

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Parkinson's disease is a common movement disorder seen in neurological practice, but the diagnosis and management is challenging. The diagnosis is clinical and sometimes difficult, considering a large number of motor and non-motor symptoms in PD patients. The medical management of PD patients is difficult, as choices of drugs are limited and levodopa is the mainstay of treatment. However, levodopa-induced dyskinesia (LID) is commonly seen in Parkinson's disease patients treated with levodopa. This side effect is usually encountered after a long duration of treatment, but occasionally, this may be seen even after a few days or months of treatment. Different types of surgical approaches, including unilateral pallidotomy and deep brain stimulation, have given very good results in PD patients, who cannot be managed by medications alone.

DOI: 10.4103/0028-3886.226451
PMID: 29503325

Conflict of interest statement: There are no conflicts of interest.

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111: Razik A, Das CJ, Sharma S. Angiomyolipoma of the Kidneys: Current Perspectives and Challenges in Diagnostic Imaging and Image-Guided Therapy. Curr Probl Diagn Radiol. 2018 Mar 20. pii: S0363-0188(18)30014-8. doi: 10.1067/j.cpradiol.2018.03.006. [Epub ahead of print] Review. PubMed PMID: 29685402.

Angiomyolipomas (AML) are benign tumors of the kidneys frequently encountered in radiologic practice in large tertiary centers. In comparison to renal cell carcinomas (RCC), AML are seldom treated unless they are large, undergo malignant transformation or develop complications like acute hemorrhage. The common garden triphasic (classic) AML is an easy diagnosis, however, some variants lack macroscopic fat in which case the radiologic differentiation from RCC becomes challenging. Several imaging features, both qualitative and quantitative, have been described in differentiating the 2 entities. Although minimal fat AML is not entirely a radiologic diagnosis, the suspicion raised on imaging necessitates sampling and potentially avoids an unwanted surgery. Recently a new variant, epitheloid AML has been described which often has atypical imaging features and

is at a higher risk for malignant transformation. Apart from the diagnosis, the radiologist also needs to convey information regarding nephrometric scores which help in surgical decision-making. Recently, more and more AMLs are managed with selective arterial embolization and percutaneous ablation, both of which are associated with less morbidity when compared to surgery. The purpose of this article is to review the imaging and pathologic features of classic AML as well as the differentiation of minimal fat AML from RCC. In addition, an overview of nephrometric scoring and image-guided interventions is also provided.

DOI: 10.1067/j.cpradiol.2018.03.006
PMID: 29685402

112: Roy KK, Gc N, Singhal S, Bharti J, Kumar S, Mitra DK, Ray R, Meena J, Vanamail P. Impact of energy devices on the post-operative systemic immune response in women undergoing total laparoscopic hysterectomy for benign disease of the uterus. J Turk Ger Gynecol Assoc. 2018 Mar 1;19(1):1-6. doi: 10.4274/jtgga.2017.0076. PubMed PMID: 29503255; PubMed Central PMCID: PMC5838771.

OBJECTIVE: Laparoscopic surgery is associated with reduced surgical stress response, lesser post- operative immune function, and consequent early recovery compared with conventional open surgery. There is a lack of evidence regarding the inflammatory stress response with the use of different energy devices. The present study was conducted to evaluate and compare the inflammatory response in total laparoscopic hysterectomy (TLH) using three different energy devices.
MATERIAL AND METHODS: A prospective randomized controlled study was conducted in 60 women with abnormal uterine bleeding undergoing TLH. They were divided into three groups based on the energy devices used, namely integrated bipolar and ultrasonic energy (Thunderbeat), ultrasonic (Harmonic) and electrothermal bipolar vessel sealing system (Ligasure). Cytokines and chemokines were measured in all three groups at different time points.
RESULTS: Serum levels of interleukin (IL)-6 and tumor necrosis factor-alpha (TNF-α) increased postsurgery in all three groups and gradually declined by 72 hours. The geometric mean serum (IL)-6 levels was highest with Ligasure at 24 hours as compared with the other groups. Levels of TNF-α, macrophage inflammatory protein (MIP-1) α, MIP-1 β were also higher at 3 hours in the Ligasure group. When the differences between the groups were measured at different time points, there was a significantly greater increase in serum IL-6 levels in the Ligasure group at 24 hours (p=0.010). No significant difference was found in the post-operative course between the groups.
CONCLUSION: A greater inflammatory response was seen after the use of Ligasure indicating greater tissue damage. However, this response was not correlated with any difference in postoperative recovery.

DOI: 10.4274/jtgga.2017.0076
PMCID: PMC5838771
PMID: 29503255

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114: Sankaranarayanan R, Joshi S, Muwonge R, Esmy PO, Basu P, Prabhu P, Bhatla N, Nene BM, Shaw J, Poli URR, Verma Y, Zomawia E, Pimple S, Tommasino M, Pawlita M, Gheit T, Waterboer T, Sehr P, Pillai MR; Indian HPV vaccine study group. Can a single dose of human papillomavirus (HPV) vaccine prevent cervical cancer? Early findings from an Indian study. Vaccine. 2018 Aug 6;36(32 Pt A):4783-4791. doi: 10.1016/j.vaccine.2018.02.087. Epub 2018 Mar 15. PubMed PMID: 29551226.

BACKGROUND: Human papillomavirus (HPV) vaccination is a major strategy for preventing cervical and other ano-genital cancers. Worldwide HPV vaccination

introduction and coverage will be facilitated if a single dose of vaccine is as effective as two or three doses or demonstrates significant protective effect compared to 'no vaccination'.
METHODS: In a multi-centre cluster randomized trial of two vs three doses of quadrivalent HPV vaccination (Gardasil™) in India, suspension of the vaccination due to events unrelated to the study led to per protocol and partial vaccination of unmarried 10-18 year old girls leading to four study groups, two by design and two by default. They were followed up for the primary outcomes of immunogenicity in terms of L1 genotype-specific binding antibody titres, neutralising antibody titres, and antibody avidity for the vaccine-targeted HPV types and HPV infections. Analysis was per actual number of vaccine doses received. This study is registered with ISRCTN, number ISRCTN98283094; and with ClinicalTrials.gov, number NCT00923702.
FINDINGS: Of the 17,729 vaccinated girls, 4348 (25%) received three doses on days 1, 60, 180 or later, 4979 (28%) received two doses on days 1 and 180 or later, 3452 (19%) received two doses on days 1 and 60, and 4950 (28%) received one dose. One dose recipients demonstrated a robust and sustained immune response against HPV 16 and 18, albeit inferior to that of 3- or 2-doses and the antibody levels were stable over a 4 year period. The frequencies of cumulative incident and persistent HPV 16 and 18 infections up to 7 years of follow-up were similar and uniformly low in all the vaccinated study groups; the frequency of HPV 16 and 18 infections were significantly higher in unvaccinated age-matched control women than among vaccine recipients. The frequency of vaccine non-targeted HPV types was similar in the vaccinated groups but higher in the unvaccinated control women.
CONCLUSION: Our results indicate that a single dose of quadrivalent HPV vaccine is immunogenic and provides lasting protection against HPV 16 and 18 infections similar to the three- and two-dose vaccine schedules, although the study suffer from some limitations. Data on long term protection beyond 7 years against HPV infection and cervical precancerous lesions are needed before policy guidelines regarding a single dose can be formulated and implemented. Significant and long-lasting protective effect of a single dose can be a strong argument to introduce one dose of the HPV vaccine in many low income countries where the current standard of care for cervical cancer prevention is 'no intervention'.

DOI: 10.1016/j.vaccine.2018.02.087
PMID: 29551226

115: Satapathy S, Kaushal T, Bakhshi S, Chadda RK. Non-pharmacological Interventions for Pediatric Cancer Patients: A Comparative Review and Emerging Needs in India. Indian Pediatr. 2018 Mar 15;55(3):225-232. Review. PubMed PMID: 29629696.

CONTEXT: Evidence-based research on psycho-oncology in last three decades lays emphasis upon the critical role of psychological services for better illness adjustment, improved quality of life, reduced distress and cognitive problems among the rapidly increasing pediatric cancer population.
JUSTIFICATION: This review aims to summarize the evidence-based psychological interventions in childhood cancer over the two decades and addresses the wide gap that existed between intervention studies worldwide and India, thus highlighting the need for research and appropriate services.
EVIDENCE ACQUISITION: We searched electronic databases such as MedLine, PubMed, PsycINFO, and Google Scholar. Key search terms were pediatric cancer, psycho-oncology, children with cancer + psychological intervention, or multimodal treatment, psychotherapy, cognitive training, behavioral, social skills+ feasibility study, pilot, randomized controlled trial, case study, systematic reviews.
RESULTS: 28 full papers published between 1996 to 2016, including survivors and under-treatment children below 18 years, were reviewed. Various types of key interventions were psychosocial, physical, cognitive behavioral, cognitive, music

art therapy and play therapy. Generally, intervention settings were either hospital or home, and were designed to promote psychological well-being. Psychological interventions were more in customised formats in these studies. A generic intervention module was not available for replication.
CONCLUSION: Development of culture-specific generic intervention module and using the same in randomized control studies with larger effect size are needed in India for larger coverage of patients.

PMID: 29629696 [Indexed for MEDLINE]

116: Satpathy G, Behera HS, Sharma A, Mishra AK, Mishra D, Sharma N, Tandon R, Agarwal T, Titiyal JS. A 20-year experience of ocular herpes virus detection using immunofluorescence and polymerase chain reaction. Clin Exp Optom. 2018 Mar 6. doi: 10.1111/cxo.12669. [Epub ahead of print] PubMed PMID: 29510455.

BACKGROUND: To detect the presence of herpes virus in corneal scrapings/corneal grafts of suspected herpetic keratitis patients attending the outpatient department/casualty of the Dr Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi for the past 20 years with immunofluorescence assay and to analyse the efficacy of polymerase chain reaction over immunofluorescence for routine laboratory diagnosis in some of the specimens.
METHODS: Corneal scrapings and corneal grafts were collected by the ophthalmologists from 1,926 suspected herpetic keratitis patients between 1996 and 2015, among whom 1,863 patients were processed with immunofluorescence assay and 302 patients were processed with polymerase chain reaction assay for the detection of herpes virus. Of the 302 patients, clinical specimens from 239 patients were analysed by both polymerase chain reaction and immunofluorescence assay.
RESULTS: Of the 1,863 suspected herpetic keratitis patients diagnosed with immunofluorescence assay, 277 (14.9 per cent) were found positive for herpes simplex virus 1 antigen. Similarly, of the 302 suspected herpetic keratitis patients diagnosed by polymerase chain reaction, 70 (23.2 per cent) were found positive for herpes simplex virus DNA. Of the 239 patients diagnosed by both polymerase chain reaction and immunofluorescence assay, 35 (14.6 per cent) were found positive with immunofluorescence assay, 59 (24.7 per cent) were found positive with polymerase chain reaction, 30 (12.5 per cent) were positive with both immunofluorescence and polymerase chain reaction assay.
CONCLUSION: Efficacy and accuracy of the polymerase chain reaction assay was greater compared to the immunofluorescence assay for detection of herpes virus in corneal scrapings/corneal grafts of suspected herpetic keratitis patients. Although the immunofluorescence assay is a rapid test for the detection of herpes virus in suspected herpetic keratitis patients, a combination of polymerase chain reaction with immunofluorescence assay will provide higher reliable and accurate results.

DOI: 10.1111/cxo.12669
PMID: 29510455

117: Saurabh A, Chakraborty S, Kumar P, Mohan A, Bhatnagar AK, Rishi N, Mitra DK. Inhibiting HLA-G restores IFN-Î³ and TNF-Î± producing T cell in pleural Tuberculosis. Tuberculosis (Edinb). 2018 Mar;109:69-79. doi: 10.1016/j.tube.2018.01.008. Epub 2018 Feb 6. PubMed PMID: 29559123.

Human Leukocyte Antigen-G (HLA-G), a non-classical, class Ib molecule, has been shown to mediate immunoregulatory functions by inducing apoptosis, inhibits cytotoxicity and differentiation by modulating cytokine secretion. Due to its immune-suppressive function, it facilitates tolerance in feto-maternal interface and transplantation. In contrary, it favours immune evasion of microbes and tumors by inhibiting immune and inflammatory responses. In Tuberculosis (TB), we

previously reported differential expression of HLA-G and its receptor Ig-like transcript -2 (ILT-2) in disseminated vs. localized Tuberculosis. The present study explores the impact of HLA-G inhibition on the function of T cells and monocytes, in TB Pleural Effusion (PE), a localized form of TB. Blocking of HLA-G resulted in significant increase in IFN-γ and TNF-α production by CD3+ T cells. Additionally, we observed that HLA-G influences the apoptosis and cytotoxic effect of T cells from TB- PE patients. Next, we checked the impact of interaction between HLA-G and ILT-4 receptor in monocytes derived from TB-PE patients upon blocking and observed significant increase in IFN-γ production. The present study reveals for the first time HLA-G mediated suppression of Th1 cytokines, especially, IFN-γ and TNF-α in TB-PE patients.

DOI: 10.1016/j.tube.2018.01.008
PMID: 29559123

118: Saxena R, Sharma M, Singh D, Sharma P. Full tendon medial transposition of lateral rectus with augmentation sutures in cases of complete third nerve palsy. Br J Ophthalmol. 2018 Jun;102(6):715-717. doi: 10.1136/bjophthalmol-2017-311376. Epub 2018 Mar 22. PubMed PMID: 29567790.

Management options in third nerve palsy are limited as four of the six extraocular muscles are involved. Surgery has to be tailored on a case-to-case basis. Aim of this retrospective case series is to report 1-year outcomes of a modified surgical technique entailing full tendon transposition of lateral rectus to medial rectus augmented with posterior fixation sutures in four patients with complete third nerve palsy. All four cases showed significant improvement of vertical and horizontal deviation with long-term stability of correction. Choice of route of full tendon augmented transposition of lateral rectus to medial rectus can aid in achieving good correction of the vertical misalignment in addition to horizontal correction.

DOI: 10.1136/bjophthalmol-2017-311376
PMID: 29567790

Conflict of interest statement: Competing interests: None declared.

119: Sebastian S, Malhotra R, Sreenivas V, Kapil A, Chaudhry R, Dhawan B. Sonication of orthopaedic implants: A valuable technique for diagnosis of prosthetic joint infections. J Microbiol Methods. 2018 Mar;146:51-54. doi: 10.1016/j.mimet.2018.01.015. Epub 2018 Jan 31. PubMed PMID: 29382603.

INTRODUCTION: Accurate and prompt microbiological diagnosis of prosthetic joint infection (PJI) is crucial for successful antimicrobial treatment. Studies have shown the diagnostic utility of sonication of explanted implants in total joint arthroplasty but all did not use consensus statements for defining PJI. We evaluated the diagnostic utility of culture of samples obtained by sonication of explanted implants compared with periprosthetic tissue cultures (PTC) for the diagnosis of PJI using Musculoskeletal Infection Society (MSIS) consensus criteria. We also assessed the utility of culture of sonicate fluid for determining the microbial profile of PJI compared with standard culture methods.
MATERIALS AND METHODS: Forty consecutive revision arthroplasty cases were enrolled. Three to five periprosthetic tissue samples were obtained during each explant procedure. The 40 explanted implants were collected in sterile containers and sonicated under sterile conditions. MSIS criteria were used for the definition of PJI.
RESULTS: Twenty - seven patients had PJI and thirteen were aseptic failures. Of

the PJI cases, there were nine cases of early PJI's, 10 of delayed PJI's and eight of late PJI's. Twenty-five (92.5%) of the twenty-seven patients with PJI, had positive cultures in the sonicate fluid of implants and in 18 (66.7%) of them cultures of the periprosthetic tissues were also positive. Both PTC and SFC cultures of implants were negative in all the 13 cases of aseptic failure. Sensitivity of sonicate fluid culture (SFC) of implants was greater than PTC (92.5% vs. 66.7%), P = .02. The specificity of both was 100%. The incidence of gram-positive and gram-negative bacteria was nearly equal by both methods. However, SFC showed an increased ability to detect Gram-positive pathogens which was evidenced by better recovery of coagulase-negative staphylococci.
CONCLUSIONS: Sonication of explanted implants is a simple and valuable microbiological technique and its routine use improves the diagnostic sensitivity of PJI.

DOI: 10.1016/j.mimet.2018.01.015
PMID: 29382603

120: Shah N, Mathur VP, Jain V, Logani A. Association between traditional oral hygiene methods with tooth wear, gingival bleeding, and recession: A descriptive cross-sectional study. Indian J Dent Res. 2018 Mar-Apr;29(2):150-154. doi: 10.4103/ijdr.IJDR_651_16. PubMed PMID: 29652005.

Background: Oral hygiene maintenance is crucial for prevention of various oral diseases. Oral hygiene practices across the country vary largely and people in peri-urban and rural areas use traditional methods of oral hygiene like powders, bark, oil and salt etc. Their effect on oral soft and hard tissues need to be studied to understand their beneficial and/ or harmful effects on maintenance of oral hygiene and prevention or causation of oral diseases.
Objectives: This study aimed to assess the plaque-cleaning efficacy, gingival bleeding, recession and tooth wear with different traditional oral hygiene methods as compared to use of toothpaste-toothbrush, the most accepted method of oral hygiene practice.
Study Design: Hospital based cross sectional analytical study. Results: Total 1062 traditional oral hygiene method users were compared with same number of toothpaste-brush users. The maximum number in the former group used tooth powder (76%) as compared to other indigenous methods, such as use of bark of trees etc and out of tooth powder users; almost 75% reported using red toothpowder. The plaque scores and gingival bleeding & recession were found to be more in traditional oral hygiene method users. The toothwear was also more severe among the toothpowder users.
Conclusions: Traditional methods were found to be inferior in plaque control as was documented by increased bleeding and gingival recession. Its effect on hard tissues of teeth was very damaging with higher tooth wear scores on all surfaces.

DOI: 10.4103/ijdr.IJDR_651_16
PMID: 29652005

Conflict of interest statement: There are no conflicts of interest

121: Shalimar, Jain S, Gamanagatti SR, Kedia S, Thakur B, Nayak B, Kaur H, Gunjan D, Paul SB, Acharya SK. Role of Indocyanine Green in Predicting Post-Transarterial Chemoembolization Liver Failure in Hepatocellular Carcinoma. J Clin Exp Hepatol. 2018 Mar;8(1):28-34. doi: 10.1016/j.jceh.2017.05.012. Epub 2017 Jun 3. PubMed PMID: 29743794; PubMed Central PMCID: PMC5938326.

Background/aim: Post-Transarterial Chemoembolization (TACE) Liver Failure (LF) is common in patients with Hepatocellular Carcinoma (HCC). No definitive objective parameters predict its occurrence. We assessed the role of Indocyanine Green (ICG) in prediction of post-TACE LF.
Methods: Consecutive HCC patients with Child A/B class, categorized as Barcelona

Clinic Liver Cancer (BCLC) staging A/B, were included between August 2012 and July 2014. All underwent ICG dynamics: Plasma Disappearance Rate (PDR) was recorded on the day of TACE. Area Under Receiver Operator Characteristic Curve (AUROC) of ICG-PDR was compared with existing prognostic scores: Model for End Stage Liver Disease (MELD), MELD-Na and Child-Turcotte-Pugh (CTP) using Hanley and McNeil method.
Results: A total of 43 patients, mean age (±sd) 55.1 ± 12.8 years were included; 35 (81.4%) patients were males. Post-TACE LF developed after 17 (28.8%) of 59 procedures. Patients with post-TACE LF had significantly elevated baseline bilirubin (P = 0.006), alkaline phosphatase (P = 0.040) and prolonged international normalized ratio (P = 0.004). The median prognostic scores were higher in patients with post-TACE LF (CTP 7 vs 6; P < 0.001 and MELD 10.5 vs 6.3; P = 0.005). There was no difference in the MELD-Na score. ICG-PDR values were lower in those patients who developed post-TACE LF (7.4%/min vs 10.6%/min; P = 0.008). AUROC for ICG-PDR was 0.72 and a cut-off value <9.25%/min predicted the development of post-TACE LF with a sensitivity, specificity, positive predictive value and negative predictive value of 64.7%, 61.9%, 40.7% and 81.2%, respectively. There were no differences in the AUROC between ICG-PDR and other prognostic markers (Hanley and McNeil, P: 0.244-0.900).
Conclusion: ICG-PDR performs similar to MELD, MELD-Na and CTP score for predicting development of post-TACE LF.

DOI: 10.1016/j.jceh.2017.05.012
PMCID: PMC5938326 [Available on 2019-03-01]
PMID: 29743794

122: Sharan J, Arunachalam S, Patil H. Letters From Our Readers(To: Editor, The Angle Orthodontist. Re: Salivary leptin levels in normal weight and overweight individuals and their correlation with orthodontic tooth movement. Tamizhmani Jayachandran, Bhadrinath Srinivasan, Sridevi Padmanabhan. The Angle Orthodontist. 2017; 87: 739-744.). Angle Orthod. 2018 Mar;88(2):247. doi: 10.2319/0003-3219-88.2.247. PubMed PMID: 29470132.

123: Sharma A, De D, Vaiphei K, Dalai R, Ghosh A. BehÃ§et Disease in a Child: A Rare Disorder with an Unusual Complication and Favorable Outcome. Indian Dermatol Online J. 2018 Mar-Apr;9(2):123-125. doi: 10.4103/idoj.IDOJ_133_17. PubMed PMID: 29644201; PubMed Central PMCID: PMC5885620.

124: 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.

DOI: 10.1177/1538574418762656
PMID: 29552943

125: Sharma HP, Halder N, Singh SB, Velpandian T. Involvement of nucleoside transporters in the transcorneal permeation of topically instilled substrates in rabbits in-vivo. Eur J Pharm Sci. 2018 Mar 1;114:364-371. doi: 10.1016/j.ejps.2017.12.027. Epub 2017 Dec 30. PubMed PMID: 29292018.

The objective of the current study was to characterize and evaluate the

functional importance of the Nucleoside Transporters (NTs) in the cornea of the rabbits. Reverse transcriptase polymerase chain reaction (RT-PCR) was used for the molecular characterization of the NTs. Their functionality was evaluated using two substrates, ribavirin and cytarabine. Dipyridamole was used as a blocker for the study. All the treatments were given topically. Molecular characterization of NTs revealed presence of ent1, ent2, ent3 and cnt3 in the cornea. The concentration vs time profile for cytarabine in Aqueous Humor (AH) exhibited a statistically significant ($p<0.05$) drop at 1h with blocker pretreatment. The mean AUC0-2 between the treatments was also differing in a significant ($p<0.05$) manner. The concentration vs time profile for ribavirin in AH also showed a significant ($p<0.05$) decrease in its concentration at 1h with blocker pretreatment. Dipyridamole was able to block ribavirin's entry with as low as 40nM concentration while complete blockade was achieved at 8mM and above. When cytarabine and ribavirin were co-administered, ribavirin at a concentration of 6.5mM significantly inhibited ($p<0.05$) the transcorneal permeation of cytarabine up to 80%. To conclude, this study showed the presence and functional importance of NTs in the transcorneal uptake of nucleoside substrates. This study further revealed the presence of concentration dependent competitive inhibition among substrates for their transcorneal permeation.

DOI: 10.1016/j.ejps.2017.12.027
PMID: 29292018

126: Sharma P, Sagar R, Pattanayak RD, Mehta M. Familial study of attentional and behavioural problems in children with Dyslexia and their first-degree relatives in Indian setting. Asian J Psychiatr. 2018 Mar;33:7-10. doi: 10.1016/j.ajp.2018.02.015. Epub 2018 Feb 24. PubMed PMID: 29500977.

BACKGROUND: Dyslexia is one of the common problems seen in children worldwide. There is high co-morbidity of dyslexia with attentional and behaviour problems which could have familial pattern. This study aims to compare the attentional and behavioural problems in children with dyslexia and their first-degree relatives with controls.
METHODS: This is a cross-sectional comparative study with single interview method in an out-patient setting. Formally diagnosed (ICD-10) cases of 30 children with specific reading disorder and 30 healthy matched controls and their first-degree relatives were assessed using scales in a single setting after application of inclusion and exclusion criteria.
RESULTS: The children with dyslexia had significantly more problems in the domains of selective attention and behavioural problems as compared to controls and the siblings of the cases had significant problems in selective attention but not in behavioural problems. Also, no difference was seen in ADHD symptoms of parents in cases and controls.
CONCLUSION: The results from our study are keeping with most of the published literature. We expect that this study will help in laying a good foundation for further studies with stronger methodologies incorporating molecular genetics.

DOI: 10.1016/j.ajp.2018.02.015
PMID: 29500977

127: Sharma S, Dahiya B, Sreenivas V, Singh N, Raj A, Sheoran A, Yadav A, Gupta KB, Mehta PK. Comparative evaluation of GeneXpert MTB/RIF and multiplex PCR targetingÂ mpb64 and IS6110 for the diagnosis of pleural TB. Future Microbiol. 2018 Mar;13:407-413. doi: 10.2217/fmb-2017-0147. Epub 2018 Feb 21. PubMed PMID: 29464970.

AIM: Diagnosis of pleural TB poses serious challenges due to paucibacillary nature of specimens and there is an urgent need to devise a reliable diagnostic

test.
METHODS: We compared GeneXpert Mycobacterium tuberculosis/rifampin assay and the multiplex PCR (M-PCR) targeting mpb64 (Rv1980c) and IS6110 in pleural fluids (n = 78) of pleural TB patients and non-TB controls.
RESULTS: The sensitivities of 89.6 and 33.3%, and specificities of 96.7 and 100%, were observed with M-PCR and Xpert assay, respectively.
CONCLUSION: M-PCR showed superiority over Xpert assay and may facilitate an efficient diagnosis of pleural TB.

DOI: 10.2217/fmb-2017-0147
PMID: 29464970

128: Sharma SC, Devaraja K, Kairo A, Kumar R. Percutaneous Trans-Tracheal Endoscopic Approach: A Novel Technique for the Excision of Benign Lesions of Thoracic Trachea. J Laparoendosc Adv Surg Tech A. 2018 Mar;28(3):320-324. doi: 10.1089/lap.2017.0224. Epub 2017 Jul 19. PubMed PMID: 28723308.

INTRODUCTION: Currently, neoplasms of the trachea and lower airway demand open transcervical approach with or without thoracotomy. We describe here a novel, minimally invasive approach for an intraluminal lesion of the thoracic trachea, called percutaneous trans-tracheal endoscopic approach (PTEA). Apart from obvious advantages over potentially morbid open procedures, this technique has certain peculiar benefits over rigid or flexible bronchoscopic approach.
MATERIALS AND METHODS: A 43-year-old male patient had glomus tumor of thoracic trachea. After detailed workup and informed written consent, he was taken up for percutaneous trans-tracheal excision under general anesthesia. The foremost step of the procedure is awake fiberoptic guided intubation, using the microlaryngeal tracheal tube, followed by elective tracheotomy. Subsequently, the lower end of the microlaryngeal tube was carefully pushed further inside the trachea so that the cuff of the tube lies distal to the tumor. The cuff is then inflated so that the operating area is sealed off from lower airway to aid continuous inhalational anesthesia and to prevent aspiration of blood. The surgeon sitting at the head end removed the tumor through tracheotomy under endoscopic guidance. After achieving absolute hemostasis, neck wound was closed.
RESULTS: Patient had complete removal of the tumor without any aspiration intraoperatively or in the postoperative period. The anesthetic agent could be delivered uninterrupted through the secured airway, below the operative area separated by sealed cuff of the microlaryngeal tube.
CONCLUSIONS: For excision of benign luminal lesions of the lower trachea, the novel approach of PTEA has many distinct and fool proof advantages in comparison to the transoral laryngoscopic/bronchoscopic and the transcervical approaches.

DOI: 10.1089/lap.2017.0224
PMID: 28723308

129: Shukla NK, Deo SVS, Garg PK, Manjunath NML, Bhaskar S, Sreenivas V. Operable Oral Tongue Squamous Cell Cancer: 15 Years Experience at a Tertiary Care Center in North India. Indian J Surg Oncol. 2018 Mar;9(1):15-23. doi: 10.1007/s13193-017-0658-x. Epub 2017 May 11. PubMed PMID: 29563729; PubMed Central PMCID: PMC5856685.

The aim of the present study was to provide insight into various demographic, clinical, and management profile of Indian patients with oral tongue squamous cell cancer (OTSCC). All the OTSCC patients who had undergone surgical treatment during 1995 to 2010 at a tertiary care center in North India were considered for the present study. The details of the patients were retrieved from a prospectively maintained computerized database. A total of 124 patients were included in the present study. Mean age of the patients was 50.4 ± 12.0 years. Lateral border of the tongue was the most common sub-site involved in 110 (88.7%) patients. Neck nodes were clinically palpable in 56.4% patients. Hemiglossectomy and anterior partial glossectomy were common surgical procedure undertaken in 57.2 and 25.8% patients. Negative resection margin was achieved in 97.5%

patients. Pathological neck metastasis was seen in 40.3% patients. Occult neck metastasis was present in 25.9% patients among clinical N0 neck. At a mean follow-up of 29.8 months (SD 3.1), 20.1% developed disease relapse and 4.0% patients developed second primaries. Kaplan-Meier analysis estimated a 5-year disease-free survival of 81.5% and a 5 years overall survival of 78.6%. Cox proportional regression analysis predicted tumor size and number of positive nodes to be independent predictive variables for disease recurrence. Quality controlled surgery, coupled with adjuvant treatment when required, provides a safe and effective treatment of OTSCC with a good disease-free survival and loco-regional control.

DOI: 10.1007/s13193-017-0658-x
PMCID: PMC5856685 [Available on 2019-03-01]
PMID: 29563729

Conflict of interest statement: Compliance with Ethical StandardsNone to declare.

130: Shukla NK, Deo SVS, Jakhetiya A, Nml M, Sreenivas V, Thulkar S, Bhasker S, Sharma A. Clinical Spectrum, Treatment and Relapse Patterns in 353 Patients with Squamous Cell Carcinoma of the Alveobuccal Complex Treated with a Curative Intent: A Retrospective Study. J Maxillofac Oral Surg. 2018 Mar;17(1):24-31. doi: 10.1007/s12663-016-0970-y. Epub 2016 Sep 30. PubMed PMID: 29382990; PubMed Central PMCID: PMC5772018.

Aims and Objectives: Oral cancer is one of the most common cancers in Indian subcontinent with alveobuccal complex as most common cancer sub site. Cancers of Alveobuccal complex provides maximum challenge and management guidelines are not clear. The aim of the present study is to provide comprehensive demographic, clinical and treatment outcome data of alveobuccal squamous cell carcinoma (SCC) patients treated at a tertiary care cancer center in North India.
Materials and Methods: An analysis of prospectively maintained database in department of surgical oncology at Dr BRA-IRCH, AIIMS, Delhi, India was performed. All alveobuccal cancer patients who had undergone surgery from 1995 to 2010 were included for analysis.
Results: A total of 353 patients were included for analysis. Mean age was 49.75 years (SD ±12.04) with male and female ratio of 4:1. Composite resection without mandible was done in 25 % patients and 75 % underwent mandibular resection. Neck dissection was performed in 347 patients. Nodal deposits were identified in 124 (35.73 %) neck dissection specimens. Margin negative resection was performed in 89.5 % cases. After a median follow up of 30 months, 87 (24.64 %) patients developed disease relapse and 25 (7.08 %) patients developed second primaries. Overall 5-year disease free survival (DFS) was 57.65 % and 5 year overall survival (OS) was 59.86 %.
Conclusion: Among Indian oral cancer patients alveobuccal complex is most common sub site. Majority presents in locally advanced stage and reasonably good outcomes can be achieved with quality control surgery and judicious use of radiotherapy.

DOI: 10.1007/s12663-016-0970-y
PMCID: PMC5772018 [Available on 2019-03-01]
PMID: 29382990

Conflict of interest statement: Compliance with Ethical StandardsNootan kumar Shukla, S V Suryanarayana Deo, Ashish Jakhetiya, Manjunath NML, Vishnubhatla Sreenivas, Sanjay Thulkar, Suman Bhasker and Atul Sharma declare that they have no conflict of interest.

131: Sihota R, Selvan H, Sharma A, Gupta A, Gupta V, Dada T, Upadhyay AD. Long-term evaluation of ocular hypertension withÂ primary angle closure and primary open angles. Int Ophthalmol. 2018 Mar 5. doi: 10.1007/s10792-018-0872-8. [Epub ahead of print] PubMed PMID: 29508190.

PURPOSE: To evaluate the long-term course of primary angle-closure ocular hypertension and primary open-angle ocular hypertension and possible risk factors for progression to glaucoma.
METHODS: A total of 109 eyes of 109 ocular hypertension (OHT) patients with a minimum follow-up period of 5 years having complete ocular/medical records were evaluated. They were classified into primary angle closure or primary open angle based on gonioscopy at baseline. Baseline and review data of Humphrey field analyser, HFA, and Heidelberg retinal tomography, HRT, were recorded. Guided progression analysis (GPA) and univariate Cox regression were used for time to event analysis in identifying progression to glaucoma.
RESULTS: Over a mean follow-up of 12.18±4.8 years, progression to glaucoma was 17.43% (19 eyes), out of whom 5.5% (6 eyes) showed≥3 loci on GPA. Sub-classifying them, progression to primary angle-closure glaucoma was 19.72%, and that of primary open-angle glaucoma was 13.16%. The mean time to progression was 9.34±3.6 years. Significant risk factors included small disc area (≤1.99 sq.mm on HRT), requirement of≥2 drugs to maintain target IOP and those engaged in activities yielding a Valsalva effect in daily life. Coronary artery disease (CAD) and systemic use of steroids were associated with increased severity.
CONCLUSION: Overall progression of OHT to glaucoma was 17.43% over a mean of 9 years, with target IOP of≤18 mm Hg. Patients with smaller discs, CAD, exercising Valsalva type activities and using≥2 glaucoma medications or systemic steroids should be closely monitored.

DOI: 10.1007/s10792-018-0872-8
PMID: 29508190

132: Sikary AK, Kumar M, Dhaka S, Subramanian A. A Rare Fatal Complication of Llizarov Procedure. J Forensic Sci. 2018 Mar 1. doi: 10.1111/1556-4029.13769. [Epub ahead of print] PubMed PMID: 29494761.

Ilizarov process is used for the management of multiple fractures, polytrauma conditions, cosmetic limb lengthening, and fracture malunion. Complications associated with the process are nerve palsy, joint contracture, premature or delayed osseous consolidation, a nonunion and permanent stiffness of the joint, pin tract infection, edema, and transient paresthesia, etc. In our case, there was a fatal complication. A 25-year-old African lady underwent the Ilizarov procedure for femur lengthening in a hospital in New Delhi, India. During her first distraction process, she suddenly collapsed at the hospital and could not be revived. At postmortem, a small hematoma was seen around the surgically fractured area. On histopathology of internal organs, fat globules were present in the vasculature of brain and lungs. Cause of death was opined as due to fat embolism. This is the first case reported of a fatal fat embolism following Ilizarov procedure for limb lengthening in a healthy adult.

DOI: 10.1111/1556-4029.13769
PMID: 29494761

133: Singh A, Irugu DVK, Verma H, Thakar A. Atypical presentation of aural tuberculosis with complication. BMJ Case Rep. 2018 Mar 9;2018. pii: bcr-2017-222482. doi: 10.1136/bcr-2017-222482. PubMed PMID: 29523606.

Tuberculosis involving mastoid and ear is an uncommon entity presenting with myriads of non-specific features and difficult to diagnose, being a paucibacillary condition. The involvement of otomastoid compartment is hypothesised to be of haematogenous origin. Rarely it can spread directly via tympanic membrane perforation or via reflux through eustachian tube. The usual picture of presentation tends to be one of indolent ear infection not responsive to usual antibiotic treatment and symptomatology being out of proportion to examination findings. We present a case of aural tuberculosis presenting with zygomatic and Bezold abscess without other symptoms, and the usefulness of

GeneXpert test in mycobacterial detection in such paucibacillary conditions.

DOI: 10.1136/bcr-2017-222482
PMID: 29523606

Conflict of interest statement: Competing interests: None declared.

134: Singh A, Sikka K, Jain N, Devarajan LJ. Delayed Endovascular Coil Extrusion Presenting as a Foreign Body of the Throat: a Case Report. Neurointervention. 2018 Mar;13(1):66-69. doi: 10.5469/neuroint.2018.13.1.66. Epub 2018 Mar 2. PubMed PMID: 29535902; PubMed Central PMCID: PMC5847894.

Endovascular treatment is a standard mode of treatment for traumatic cavernous internal carotid artery (ICA) pseudoaneurysms with good results and relatively low rates of complications. We describe a case of an unusual, potentially fatal, delayed postoperative event happening in a case of post-traumatic pseudoaneurysm of ICA, which had been previously managed with endovascular coiling.

DOI: 10.5469/neuroint.2018.13.1.66
PMCID: PMC5847894
PMID: 29535902

135: Singh AN, Kilambi R. Single-stage laparoscopic common bile duct exploration and cholecystectomy versus two-stage endoscopic stone extraction followed by laparoscopic cholecystectomy for patients with gallbladder stones with common bile duct stones: systematic review and meta-analysis of randomized trials with trial sequential analysis. Surg Endosc. 2018 Sep;32(9):3763-3776. doi: 10.1007/s00464-018-6170-8. Epub 2018 Mar 30. Review. PubMed PMID: 29603004.

BACKGROUND: The ideal management of common bile duct (CBD) stones associated with gall stones is a matter of debate. We planned a meta-analysis of randomized trials comparing single-stage laparoscopic CBD exploration and cholecystectomy (LCBDE) with two-stage preoperative endoscopic stone extraction followed by cholecystectomy (ERCP+LC).
METHODS: We searched the Pubmed/Medline, Web of science, Science citation index, Google scholar and Cochrane Central Register of Controlled trials electronic databases till June 2017 for all English language randomized trials comparing the two approaches. Statistical analysis was performed using Review Manager (RevMan) [Computer program], Version 5.3. Copenhagen: The Nordic Cochrane Centre, The Cochrane Collaboration, 2014 and results were expressed as odds ratio for dichotomous variables and mean difference for continuous. p value≤0.05 was considered significant. Trial sequential analysis (TSA) was performed using TSA version 0.9.5.5 (Copenhagen: The Copenhagen Trial Unit, Centre for Clinical Intervention Research, 2016). PROSPERO trial registration number is CRD42017074673.
RESULTS: A total of 11 trials were included in the analysis, with a total of 1513 patients (751-LCBDE; 762-ERCP+LC). LCBDE was found to have significantly lower rates of technical failure [OR 0.59, 95% CI (0.38, 0.93), p=0.02] and shorter hospital stay [MD -1.63, 95% CI (-3.23, -0.03), p=0.05]. There was no significant difference in mortality [OR 0.37, 95% CI (0.09, 1.51), p=0.17], morbidity [OR 0.97, 95% CI (0.70, 1.33), p=0.84], cost [MD -379.13, 95% CI (-784.80, 111.2), p=0.13] or recurrent/retained stones [OR 1.01, 95% CI (0.38, 2.73), p=0.98]. TSA showed that although the Z-curve crossed the boundaries of conventional significance, the estimated information size is yet to be achieved.
CONCLUSIONS: Single-stage LCBDE is superior to ERCP+LC in terms of technical success and shorter hospital stay in good-risk patients with gallstones and CBD stones, where expertise, operative time and instruments are available.

DOI: 10.1007/s00464-018-6170-8
PMID: 29603004

136: Singh AN, Pal S, Mangla V, Kilambi R, George J, Dash NR, Chattopadhyay TK, Sahni P. Pancreaticojejunostomy: Does the technique matter? A randomized trial. J Surg Oncol. 2018 Mar;117(3):389-396. doi: 10.1002/jso.24873. Epub 2017 Oct 16. PubMed PMID: 29044532.

BACKGROUND: Despite a large number of studies, the ideal technique of pancreaticojejunostomy (PJ) after pancreaticoduodenectomy (PD) remains debatable. We compared the two most common techniques of PJ (duct-to-mucosa and dunking) in a randomized trial.
METHODS: This open-label randomized trial was done at a tertiary care center from January 2009 to October 2015. Patients with resectable periampullary tumours with a pancreatic duct diameter ≥2 mm, requiring PD were randomly assigned to one of the two techniques using computer generated random numbers. The primary outcome was postoperative pancreatic fistula (POPF) rate and secondary outcomes were frequency of other postoperative complications.
RESULTS: A total of 193 patients were randomized and analyzed (intention-to-treat analysis), 97 in duct-to-mucosa and 96 in dunking group. Both groups were comparable for baseline demographic and clinical profiles. The incidence of POPF in the entire study group was 23.8%. There was no statistically significant difference between the two groups (24.7% vs 22.9%, P = 0.71). Similarly, the incidence of grades B and C (clinically significant) POPF was comparable (16.5% vs 13.5%, P = 0.57). Both groups were comparable with respect to the secondary outcomes.
DISCUSSION: The duct-to-mucosa technique of PJ after PD is not superior to the dunking technique with respect to POPF rate. (CTRI/2010/091/000531).

DOI: 10.1002/jso.24873
PMID: 29044532 [Indexed for MEDLINE]

137: Singh AN, Kilambi R, Das P, Madhusudhan KS, Pal S. Malignant Hemangiopericytoma of the Liver Masquerading as Hepatocellular Carcinoma. Indian J Surg Oncol. 2018 Jun;9(2):256-259. doi: 10.1007/s13193-018-0734-x. Epub 2018 Mar 2. PubMed PMID: 29887712; PubMed Central PMCID: PMC5984853.

Isolated, metastatic hemangiopericytoma of liver is an extremely rare entity. We present a case of hemangiopericytoma of the liver, metastatic from a meningeal hemangiopericytoma, who presented 10 years after the surgical excision of the primary tumour and morphologically mimicked a hepatocellular carcinoma. We review the literature regarding this entity and discuss the difficulties in preoperative diagnosis and the need for a thorough preoperative evaluation.

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PMCID: PMC5984853 [Available on 2019-06-01]
PMID: 29887712

Conflict of interest statement: Compliance with Ethical StandardsSingh AN, Kilambi R, Das P, Madhusudhan KS, and Pal S declare that they have no conflict of interest.Informed consent was taken from the patient before submission.

138: 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).

DOI: 10.1016/j.jss.2018.02.010
PMID: 29804855

139: Singh AP, Bajaj T, Gupta D, Singh SB, Chakrawarty A, Goyal V, Dey AB, Dey S. Serum Mortalin Correlated with Î±-Synuclein as Serum Markers in Parkinson's Disease: A Pilot Study. Neuromolecular Med. 2018 Mar;20(1):83-89. doi: 10.1007/s12017-017-8475-5. Epub 2018 Jan 6. PubMed PMID: 29307058.

Mortalin, a mitochondrial chaperone, plays a crucial role in reducing toxicity of Lewy bodies. Earlier studies had reported that Mortalin level gets downregulated in astrocytes and other brain tissue samples in Parkinson's disease (PD). This study aims to estimate the Mortalin concentration in serum and correlate with α-synuclein (α-Syn) in PD. The concentration of Mortalin and α-Syn in serum samples of 38 PD patients and 33 control group (CG) individuals was quantified by surface plasmon resonance. The receiver operating characteristic curves were plotted to develop it as blood-based protein marker. The expression of Mortalin in serum was validated by western blot. The Mortalin level was found to be declined in PD patients (1.98 ± 0.53 ng/μL) in comparison with CG individuals (3.13 ± 0.48 ng/μL), whereas α-Syn level was found to be elevated in PD patients (38.20 ± 4.22 ng/μL) than CG individuals (34.31 ± 3.23 ng/μL) in serum. The statistical analysis revealed the negative correlation between Mortalin and α-Syn. This preliminary study summarized that Mortalin plays a significant role in PD with negative correlation with α-Syn. This study provides a new paradigm for the development of Mortalin as a potent serum protein marker for diagnosis of PD.

DOI: 10.1007/s12017-017-8475-5
PMID: 29307058

140: Singh D, Ganger A, Gupta N, Vanathi M, Khadgawat R, Tandon R. Primary Bullous Keratopathy in a Patient With Werner Syndrome Treated With Corneal Transplant. Exp Clin Transplant. 2018 Mar 9. doi: 10.6002/ect.2017.0163. [Epub ahead of print] PubMed PMID: 29534662.

Here, we present, to the best of our knowledge, the first case of Werner syndrome with corneal blindness due to bilateral primary bullous keratopathy. Werner syndrome is a rare autosomal recessive disorder characterized by features of premature aging, insulin-dependent diabetes mellitus, osteoporosis,

atherosclerosis, hypergonadotrophic hypogonadism, hypertriglyceridemia, scleroderma-like skin changes, and sarcomas. Among ocular manifestations, cataracts, cystoid macular edema, and retinal detachment have been reported. Because these patients show features of premature aging, they have decreased corneal endothelial function and delayed fibroblast growth. To date, there are few reports of wound dehiscence, bleb formation, and bullous keratopathy following surgical insult that have usually occurred after cataract surgery in patients with Werner syndrome. There have been no reports in the literature regarding Werner syndrome presenting with primary corneal decompensation without any inciting factor. Our patient with Werner syndrome had primary bilateral bullous keratopathy and bilateral corneal blindness for 10 years and was eventually rehabilitated by corneal transplant. Hence, this case highlights the importance of early referral of such patients to the ophthalmologist for prompt diagnosis and early treatment so that blindness could be avoided.

DOI: 10.6002/ect.2017.0163
PMID: 29534662

141: 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.

DOI: 10.1016/j.ijcard.2018.03.082
PMID: 29622506

142: Singh L, Saini N, Pushker N, Bakhshi S, Sen S, Nag TC, Kashyap S. Mutational Analysis of the Mitochondrial DNA Displacement-Loop Region in Human Retinoblastoma with Patient Outcome. Pathol Oncol Res. 2018 Mar 12. doi: 10.1007/s12253-018-0391-y. [Epub ahead of print] PubMed PMID: 29532407.

Alteration in mitochondrial DNA plays an important role in the development and progression of cancer. The Displacement Loop (D-loop) region of mitochondrial DNA (mtDNA) is the regulatory region for its replication and transcription.

Therefore, we aimed to characterize mutations in the D-loop region of mitochondrial DNA along with the morphological changes and analyzed their impact on survival in retinoblastoma patients. mtDNA D-loop region was amplified by Nested-Polymerase Chain Reaction (Nested-PCR) and mutations were analyzed in 60 tumor samples from retinoblastoma patients by DNA sequencing. Transmission electron microscopy was performed on 5 retinoblastoma specimens. Mutations were correlated with clinical, histopathological parameters and patient survival. D-loop mutations were found in total of 52/60 (86.6%) patients. The most common mutations were T to C and C to T followed by A to G. There were 5.81% mutations which were not previously reported in the MITOMAP database. A73G (83.33%) were the most frequent mutations found in our cases and it was statistically significant with poor tumor differentiation and age. In addition, this study was further analyzed for morphological changes in retinoblastoma that had disorganized, swollen and less numbers of mitochondria on electron microscopy. This is the first study showing high frequency of mtDNA mutation which might be due to abnormal morphology of mitochondria in retinoblastoma. Our results indicate that pathogenic mtDNA D-loop mutations may be involved in tumorigenesis of retinoblastoma tumor.

DOI: 10.1007/s12253-018-0391-y
PMID: 29532407

143: Singh M, Shabari Girishan KV, Bajaj J, Garg K. Deep brain stimulation for movement disorders: Surgical nuances. Neurol India. 2018 Mar-Apr;66(Supplement):S122-S130. doi: 10.4103/0028-3886.226461. PubMed PMID: 29503334.

Parkinson's disease (PD) and dystonia are common indications for the deep brain stimulation (DBS) procedure. It is very important to be diligent about target localization and execution of the procedure. The single most important predictor of a good postoperative outcome is proper patient selection. The various steps of performing DBS include taking a preoperative non - stereotactic MRI, stereotactic frame fixation, fusion of MRI with stereotactic CT scan images, planning of the target and trajectory, lead placement at target through the planned trajectory, implantation of pulse generator/ battery and programming of the implanted device. Utmost care and precision are required to execute the procedure, which decide the final outcome of the surgical procedure.

DOI: 10.4103/0028-3886.226461
PMID: 29503334

Conflict of interest statement: There are no conflicts of interest.

144: Singh P, Surana R, Soni S, Agnihotri A, Ahuja V, Makharia GK, Staller K, Kuo B. Cross cultural comparison of constipation profiles at tertiary care centers between India and USA. Neurogastroenterol Motil. 2018 Mar 9. doi: 10.1111/nmo.13324. [Epub ahead of print] PubMed PMID: 29521026.

BACKGROUND: Despite potential differences in patient perception of chronic constipation (CC) in geographically and culturally distinct regions, head-to-head studies comparing the clinical profile, constipation severity, impact on quality of life (QOL) and economic impact are lacking.
METHODS: We conducted a cross-sectional cohort study of patients presenting with CC to tertiary care centers in the USA and India. Standardized instruments were used to assess constipation subtype, disease severity, disease-specific QOL, somatization, and psychiatric comorbidities. We used multivariable linear regression to determine the predictors of QOL and number of healthcare visits.
KEY RESULTS: Sixty-six and 98 patients with CC were enrolled in the USA and India, respectively. Indian patients with CC had significantly more frequent bowel movements/week compared to their USA counterparts (Median 5 vs 3, $P < .0001$). The proportion of patients with Bristol stool form scale type 1 and 2 was significantly higher in the USA compared to India (65.5% vs 48%, $P = .04$).

Higher depression score (P = .001), more severe constipation symptoms (P = .001) and site of the study being USA (P = .008) independently predicted worse QOL. Indian patients (P < .001) and worse QOL (P = .02) were independent predictors of number of healthcare visits in the last 12 months.
CONCLUSIONS AND INFERENCES: Indian patients with CC have more frequent and softer bowel movements compared to those in the USA suggesting significant differences in perception of CC in different geographic and cultural settings. QOL and economic impact related to constipation varies with geographic/cultural setting irrespective of other clinical and psychosomatic features.

DOI: 10.1111/nmo.13324
PMID: 29521026

145: Singh P, Arora A, Strand TA, Leffler DA, Catassi C, Green PH, Kelly CP, Ahuja V, Makharia GK. Global Prevalence of Celiac Disease: Systematic Review andÂ Meta-analysis. Clin Gastroenterol Hepatol. 2018 Jun;16(6):823-836.e2. doi: 10.1016/j.cgh.2017.06.037. Epub 2018 Mar 16. PubMed PMID: 29551598.

BACKGROUND & AIMS: Celiac disease is a major public health problem worldwide. Although initially it was reported from countries with predominant Caucasian populations, it now has been reported from other parts of the world. The exact global prevalence of celiac disease is not known. We conducted a systematic review and meta-analysis to estimate the global prevalence of celiac disease.
METHODS: We searched Medline, PubMed, and EMBASE for the keywords celiac disease, celiac, celiac disease, tissue transglutaminase antibody, anti-endomysium antibody, endomysial antibody, and prevalence for studies published from January 1991 through March 2016. Each article was cross-referenced with the words Asia, Europe, Africa, South America, North America, and Australia. The diagnosis of celiac disease was based on European Society of Pediatric Gastroenterology, Hepatology, and Nutrition guidelines. Of 3843 articles, 96 articles were included in the final analysis.
RESULTS: The pooled global prevalence of celiac disease was 1.4% (95% confidence interval, 1.1%-1.7%) in 275,818 individuals, based on positive results from tests for anti-tissue transglutaminase and/or anti-endomysial antibodies (called seroprevalence). The pooled global prevalence of biopsy-confirmed celiac disease was 0.7% (95% confidence interval, 0.5%-0.9%) in 138,792 individuals. The prevalence values for celiac disease were 0.4% in South America, 0.5% in Africa and North America, 0.6% in Asia, and 0.8% in Europe and Oceania; the prevalence was higher in female vs male individuals (0.6% vs 0.4%; P < .001). The prevalence of celiac disease was significantly greater in children than adults (0.9% vs 0.5%; P < .001).
CONCLUSIONS: In a systematic review and meta-analysis, we found celiac disease to be reported worldwide. The prevalence of celiac disease based on serologic test results is 1.4% and based on biopsy results is 0.7%. The prevalence of celiac disease varies with sex, age, and location. There is a need for population-based prevalence studies in many countries.

DOI: 10.1016/j.cgh.2017.06.037
PMID: 29551598

146: Singh PK, Iqbal N, Sirohi HV, Bairagya HR, Kaur P, Sharma S, Singh TP. Structural basis of activation of mammalian heme peroxidases. Prog Biophys Mol Biol. 2018 Mar;133:49-55. doi: 10.1016/j.pbiomolbio.2017.11.003. Epub 2017 Nov 22. Review. PubMed PMID: 29174286.

The mammalian heme peroxidases including lactoperoxidase (LPO), myeloperoxidase (MPO), eosinophil peroxidase (EPO) and thyroid peroxidase (TPO) contain a covalently linked heme moiety. Initially, it was believed that the heme group was

fully cross-linked to protein molecule through at least two ester linkages involving conserved glutamate and aspartate residues with 1-methyl and 5-methyl groups of pyrrole rings A and C respectively. In MPO, an additional sulfonium ion linkage was present between 2-vinyl group of pyrrole ring A of the heme moiety and a methionine residue of the protein. These linkages were formed through a self processing mechanism. Subsequently, biochemical studies indicated that the heme moiety was partially attached to protein. The recent structural studies have shown that the covalent linkage involving glutamate and 1-methyl group of pyrrole ring of heme moiety was partially formed. When glutamate is not covalently linked to heme moiety, its side chain occupies a position in the substrate binding site on the distal heme side and blocks the substrate binding site leading to inactivation. However, an exposure to H2O2 converts it to a fully covalently linked state with heme. Thus in mammalian heme peroxidases, the Glu-heme linkage is essential for catalytic action.

DOI: 10.1016/j.pbiomolbio.2017.11.003
PMID: 29174286

147: Singh S, Bhargava B, Vasantha P, Bhatia R, Sharma H, Pal S, Sahni P, Makharia GK. Clinical Evaluation of a Novel Intrarectal Device for Management of Fecal Incontinence in Bedridden Patients. J Wound Ostomy Continence Nurs. 2018 Mar/Apr;45(2):156-162. doi: 10.1097/WON.0000000000000408. PubMed PMID: 29521926.

PURPOSE: The primary objective of the study was to evaluate the safety and efficacy of a stool management kit (SMK) for containment of fecal incontinence in hospitalized bedridden patients.
DESIGN: A single-group quasi-experimental study.
SUBJECTS AND SETTING: Twenty bedridden adults who had at least 1 episode of fecal incontinence in the prior 24 hours participated in the study. The study setting was the neurological unit of the All India Institute of Medical Sciences in New Delhi, India.
METHODS: The study was carried out in 2 phases. The device was placed in situ for up to 24 hours in 10 patients during phase I of the study and up to 120 hours in an additional 10 patients during phase II. Participants were assessed for anorectal injury and peripheral device leakage on a 4- to 6-hourly basis. Sigmoidoscopy was performed to evaluate for any mucosal trauma or alteration of anorectal pathology after retrieval of the device.
RESULTS: The device was successfully placed in all patients following the first attempt to place the device; 80% of patients retained the device until planned removal. The SMK diverted fecal matter without anal leakage in 174 (93.5%) out of 186 assessment points in a group of 20 patients. The devices remained in situ for 21 ± 0.2 and 84.5 ± 38.9 hours during phase I and phase II, respectively. None experienced anorectal bleeding, sphincter injury, or mucosal ulceration with device usage. Post-device sigmoidoscopy revealed erythema at the site of diverter placement in 2 participants.
CONCLUSION: Study findings suggest that the SMK successfully diverted liquid to semiformed fecal exudate without peripheral device leakage in 93.5% of bedridden patients. No serious adverse events occurred. Additional research is needed to compare its effectiveness with that of currently available intrarectal balloon devices.

DOI: 10.1097/WON.0000000000000408
PMID: 29521926 [Indexed for MEDLINE]

148: Singla V, Aggarwal S, Garg H, Kashyap L, Shende DR, Agarwal S. Outcomes in Super Obese Patients Undergoing Laparoscopic Sleeve Gastrectomy. J Laparoendosc Adv Surg Tech A. 2018 Mar;28(3):256-262. doi: 10.1089/lap.2017.0536. Epub 2017 Nov 3. PubMed PMID: 29099314.

BACKGROUND: Super obese patients remain a challenge for management because of

large liver size resulting in decreased work space and associated comorbidities.
OBJECTIVES: To study outcomes in super obese patients undergoing Laparoscopic sleeve gastrectomy (LSG).
METHODS: Retrospective data of 123 patients undergoing LSG from January 2008 to March 2015 were analyzed prospectively.
RESULTS: Mean age and body mass index (BMI) of 123 patients (±2 standard deviation [SD]) were 39.9±23.3 years and 55.6±10.54 kg/m2, respectively. Mean percentage excess weight loss (%EWL) (±2 SD) at 1, 3, 5, and 7 years was 63%±36.7%, 62.3%±29.0%, 56.5%±35.8%, and 58.6%±40.3%, respectively. The preoperative BMI correlated with %EWL at 1 year (r2=0.0397, P=.044). Staple line leak, bleeding, deep venous thrombosis, and 30-day mortality occurred in 1.6%, 0%, 0.8%, and 0% of the patients, respectively. Stricture formation and new onset gastroesophageal reflux disease (GERD) occurred in 0.8% patients each. Of the diabetic patients, 72.2% had remission and the rest required decreased dosage of oral hypoglycemic medications. Hypertension, obstructive sleep apnea, and GERD improved in 68.2%, 100%, and 25% of the patients, respectively. However, 25% of patients had worsening in GERD symptoms.
CONCLUSIONS: Super obese patients undergoing LSG as the primary procedure have reasonable weight loss of 62% and 56% at 3 and 5 years, respectively, with significant resolution of comorbidities.

DOI: 10.1089/lap.2017.0536
PMID: 29099314

149: Soubam P, Mishra S, Suri A, Dhingra R, Mochan S, Lalwani S, Roy TS, Mahapatra AK. Standardization of the technique of silicon injection of human cadaveric heads for opacification of cerebral vasculature in Indian conditions. Neurol India. 2018 Mar-Apr;66(2):439-443. doi: 10.4103/0028-3886.227303. PubMed PMID: 29547168.

A surgeon's understanding of the surgical anatomy can be greatly enhanced by the dissection of preserved cadaveric specimens. A reliable and inexpensive biological model for testing and standardization of dye injection concentrations is proposed utilizing the goat's head as a biological model. The first phase was concerned with standardization of the dye by titrating its concentration and injecting various amounts into cerebral vessels of a goat's head until an optimal concentration had been ascertained. In the second phase, this optimum concentration of the dye was injected into four human cadaveric heads following the same technique standardized using the goat's head. Upon dissecting the four cadaveric human heads which were injected with silicon dyes and preserved in 10% formalin, the vessels were all well-opacified and the brain was of near normal consistency and good for dissection, without showing any features of putrefaction. The goat model, having similar color, texture, and the handling as the cadaveric head, offers an opportunity to test indigenously manufactured polymerizing dyes in the future. This biological model, therefore, has the potential to considerably reduce the cost of cadaver preparation.

DOI: 10.4103/0028-3886.227303
PMID: 29547168

Conflict of interest statement: There are no conflicts of interest

150: Srujana D, Kaur M, Urkude J, Rathi A, Sharma N, Titiyal JS. Long-term Functional and Anatomic Outcomes of Repeat Graft After Optically Failed Therapeutic Keratoplasty. Am J Ophthalmol. 2018 May;189:166-175. doi: 10.1016/j.ajo.2018.03.011. Epub 2018 Mar 14. PubMed PMID: 29550189.

PURPOSE: To evaluate the functional and anatomic outcomes of repeat penetrating keratoplasty (PK) in optically failed therapeutic grafts.
DESIGN: Prospective interventional case series.
METHODS: All cases admitted at the apex tertiary care center for repeat keratoplasty following optically failed therapeutic PK were enrolled over a

period of 1 year. Repeat optical PK was performed in all eyes. Primary outcome measures were postoperative graft clarity and visual acuity. Secondary outcome measures were complications including graft rejection, infections, failure, and secondary glaucoma. Follow-up examinations were undertaken on day 1; on day 7; at 1, 3, 6, and 12 months; and yearly thereafter.
RESULTS: Thirty-two eyes underwent repeat PK with mean follow-up of 18.4 ± 8.9 months. Clear grafts were observed in 63.14% of cases 1 year after regraft, and graft survival further decreased to 50% at last follow-up. Visual acuity ≥ 20/200 was achieved in 43.8% of cases, and no case had a visual acuity of ≥ 20/40. Multivariate Cox regression analysis analyzed risk factors for regraft survival, and observed a hazard ratio of 3.56 with size of initial therapeutic graft ≥ 8.75 mm, and 10.99 with deep vascularization in 1 or more quadrants. Graft survival (P = .004), visual acuity (P = .039), and rejection rates (P = .036) were significantly better in cases with initial therapeutic graft size < 8.75 mm. Secondary glaucoma was present in 59.4% (19/32) after regrafts.
CONCLUSION: Regraft after therapeutic PK is associated with suboptimal visual outcomes and long-term graft survival. Large size of initial therapeutic graft and deep vascularization adversely affect graft survival.

DOI: 10.1016/j.ajo.2018.03.011
PMID: 29550189

151: Subbiah A, Bagchi S, Bhowmik D, Mahajan S, Yadav RK, Chhabra Y, Agarwal S. Dengue fever in renal allograft recipients: Clinical course and outcome. Transpl Infect Dis. 2018 Jun;20(3):e12875. doi: 10.1111/tid.12875. Epub 2018 Mar 30. PubMed PMID: 29512853.

BACKGROUND: There are annual outbreaks of dengue infection in tropical and subtropical countries. This retrospective study aimed to assess the clinical manifestation of dengue and outcome in renal transplant recipients.
METHODS: Renal transplant recipients diagnosed with dengue in the nephrology department during the outbreak from August 2015 to December 2015 were included in the study.
RESULTS: Twenty patients developed dengue presenting during the outbreak. Mean age was 31.9 ± 8.8 years and all were males. Two patients had severe dengue (dengue hemorrhagic fever, dengue shock syndrome). Clinical presentation included febrile illness (95%), myalgia (65%), headache (30%), retro-orbital pain (10%), and mucocutaneous bleeding manifestations (10%). Three (15%) had third space fluid accumulation and 2 (10%) had hypotension. Ninety percent patients had thrombocytopenia, with 4 requiring platelet transfusion. Leucopenia (WBC < 4000/mm3) developed in 50% patients. About 60% had transient transaminitis. One patient with severed dengue expired and 1 recovered with IV immunoglobulin therapy. About 40% patients had rise in serum creatinine, with complete recovery in all patients.
CONCLUSION: Clinical manifestations of dengue infection in renal transplant recipients were similar to that in general population. However, leucopenia necessitating temporary withdrawal of immunosuppression was common. Renal dysfunction was frequent but completely reversible.

DOI: 10.1111/tid.12875
PMID: 29512853

152: Sultana N, Singh M, Nawal RR, Chaudhry S, Yadav S, Mohanty S, Talwar S. Evaluation of Biocompatibility and Osteogenic Potential of Tricalcium Silicate-based Cements Using Human Bone Marrow-derived Mesenchymal Stem Cells. J Endod. 2018 Mar;44(3):446-451. doi: 10.1016/j.joen.2017.11.016. Epub 2018 Jan 3. PubMed PMID: 29306530.

INTRODUCTION: The success of endodontic regeneration lies in the appropriate combination of stem cells and bioactive materials. Several novel dental materials are available on the market in this regard. Hence, the current study aimed to evaluate the proliferation, differentiation, and osteogenic potential of human bone marrow-derived mesenchymal stem cells (hBMSCs) onto biomaterials like ProRoot MTA (MTA; Dentsply Tulsa Dental, Tulsa, OK), Biodentine (BD; Septodont, Saint Maur de Fosses, France), and EndoSequence Root Repair Material (ERRM; Brasseler USA, Savannah, GA).
METHODS: Dental cements were formulated into discs and assessed for their biocompatibility. hBMSCs were used to study biocompatitibility and the proliferative and osteogenic potential of these dental cements. A live dead assay was performed using confocal microscopy to study the biocompatibility, proliferation, and cell attachment property of the cements. An 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay was also performed on days 1, 3, 5, and 7 to study growth kinetics. The osteogenic potential of these cements was studied by inducing hBMSCs over them using osteogenic differentiation medium (assessed by alkaline phosphatase assay).
RESULTS: ERRM and MTA have shown the best biocompatibility among the tricalcium silicate materials used with no significant difference between them. Both have shown significantly higher osteogenic bioactivity than BD. All 3 tricalcium silicate cements support good adherence of hBMSCs.
CONCLUSIONS: All of the dental cements used in this study are biocompatible with the potential to induce proliferation and osteogenic differentiation of hBMSCs. Therefore, the newly introduced ERRM can be the material of choice in various endodontic applications.

DOI: 10.1016/j.joen.2017.11.016
PMID: 29306530

153: Sundar D, Takkar B, Venkatesh P, Chawla R, Temkar S, Azad SV, Vohra R. Evaluation of hyaloid-retinal relationship during triamcinolone-assisted vitrectomy for primary rhegmatogenous retinal detachment. Eur J Ophthalmol. 2018 Mar 1:1120672118754301. doi: 10.1177/1120672118754301. [Epub ahead of print] PubMed PMID: 29569478.

AIMS: To determine hyaloid-retinal relationship in primary rhegmatogenous retinal detachment during vitreous surgery.
METHODS: This is a prospective, interventional study of patients (n = 72) undergoing triamcinolone-assisted 25G vitreous surgery for primary rhegmatogenous retinal detachment. Hyaloid-retinal relationship was noted intraoperatively to identify regions and patterns of firm attachment and was classified into subgroups. Analysis was done to determine association between hyaloid-retinal relationship patterns and preoperative findings: posterior vitreous detachment, proliferative vitreoretinopathy, type of retinal tear, the presence of peripheral degenerations, and postoperative outcomes.
RESULTS: Three patterns of hyaloid-retinal relationship were identified: type1 (complete absence of posterior vitreous detachment (21%)), type 2 (incomplete posterior vitreous detachment (47%)) and type 3 (complete posterior vitreous detachment (32%)). Posterior vitreous detachment in some form was present in 84% of the cases with retinal tears as the causative break but none of the cases with retinal holes ($p < 0.001$). None of the cases with vitreoretinal degeneration had complete posterior vitreous detachment ($p = 0.001$). 69% of proliferative vitreoretinopathy-C cases had type 1 hyaloid-retinal relationship as compared to 11% cases with no proliferative vitreoretinopathy ($p < 0.001$). Proliferative vitreoretinopathy-related anatomical failure was seen in 7.5%, and 80% of these eyes with recurrent RD had type 1 hyaloid-retinal relationship ($p<0.001$). Nearly half the patients diagnosed as complete posterior vitreous detachment preoperatively were found to have incomplete posterior vitreous detachment intraoperatively.

CONCLUSIONS: Majority of the cases with rhegmatogenous retinal detachment have some form of strong vitreoretinal adhesion. Hyaloid-retinal relationship varies with types of retinal breaks, retinal degeneration, and proliferative vitreoretinopathy. Intraoperative hyaloid-retinal relationship is frequently different from that assessed before surgery and the proposed classification may improve surgical decision making and prognostication.

DOI: 10.1177/1120672118754301
PMID: 29569478

154: Suri NA, Sebastian S, Yadav D, Khanna N, Dhawan B. A case of oropharyngeal Ureaplasma urealyticum infection in a human immunodeficiency virus positive bisexual male co-infected with human papilloma virus and Treponema pallidum. JMM Case Rep. 2018 Jan 10;5(3):e005132. doi: 10.1099/jmmcr.0.005132. eCollection 2018 Mar. PubMed PMID: 29623213; PubMed Central PMCID: PMC5884959.

Introduction: Management strategies for sexually transmitted infections (STIs) in their extragenital forms address Neisseria gonorrhoeae and Chlamydia trachomatis alone; whereas increased rates of isolation of other STI agents have been reported from various parts of the world. Their extragenital presence as a reservoir of infection emphasizes the need to screen and treat them at these sites.
Case presentation: A 35-year-old human immunodeficiency virus 1 infected bisexual male presented with urethral discharge and multiple ano-genital warts. He was reactive for the venereal disease research laboratory (VDRL) test. He tested positive for Ureaplasma spp. both by culture and PCR at urethral and oropharyngeal sites, but was negative at the rectal site. The patient was successfully treated with doxycycline and penicillin, and was followed up with a test of cure at 6 weeks.
Conclusion: In view of the disseminating infections that can be caused by Ureaplasma spp., it makes it important to screen for these infections even at non-genital sites, especially in the immunocompromised. STIs may be asymptomatic and can serve as a reservoir of infection in a population. This report should promote all efforts to formulate guidelines for extragenital screening of all STI pathogens.

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PMCID: PMC5884959
PMID: 29623213

Conflict of interest statement: The authors declare that there are no conflicts of interest.

155: Surve A, Meel R, Pushker N, Bajaj MS. Ultrasound biomicroscopy image patterns in normal upper eyelid and congenital ptosis in the Indian population. Indian J Ophthalmol. 2018 Mar;66(3):383-388. doi: 10.4103/ijo.IJO_915_17. PubMed PMID: 29480247; PubMed Central PMCID: PMC5859591.

Purpose: To study the features of upper eyelid in healthy individual and different types of congenital ptosis in the Indian population using ultrasound biomicroscopy (UBM).
Methods: This was a prospective observational study at a tertiary care center. Eyelid structure of healthy individuals with no eyelid abnormalities (n = 19); simple congenital ptosis (n = 33) cases; Marcus Gunn jaw-winking ptosis (MGJWP, n = 7) cases, and blepharophimosis-ptosis-epicanthus inversus syndrome (BPES, n = 20) cases were studied on a vertical UBM scan using 50-MHz probe. Lid-thickness, tarsal-thickness, orbicularis oculi and levator-Muller-orbital septum-conjunctival (LMSC) complex were measured in primary gaze. Comparison was made between four groups and results were statistically analyzed using ANOVA test. In normal individuals, LMSC measurements were repeated in down-gaze imaging.
Results: Skin with subcutaneous tissue, LMSC complex and pre-aponeurotic fat-pad

appeared echodense while orbicularis oculi and tarsus appeared echolucent. In primary gaze, mean thickness (± standard deviation) of the eyelid, tarsus, orbicularis oculi and LMSC, respectively, were: 1.612 ± 0.205, 0.907 ± 0.098, 0.336 ± 0.083, and 0.785 ± 0.135 mm in normal individual. LMSC showed 46.64% increase in thickness on down-gaze. The mean eyelid thickness and LMSC were thicker in MGJWP and BPES as compared to normal. In different types of congenital ptosis cases, various patterns of UBM imaging were observed.
Conclusion: UBM allows noninvasive imaging of eyelid structures with good anatomical correspondence in normal eyelids and study the structural alterations of eyelids in different types of congenital ptosis. UBM can be used to highlight the anatomical difference in normal eyelids that may help modify the surgery for better cosmetic outcomes. Furthermore, it has the potential to be used in preoperative evaluation and operative planning in certain types of acquired ptosis, which needs to be evaluated.

DOI: 10.4103/ijo.IJO_915_17
PMCID: PMC5859591
PMID: 29480247 [Indexed for MEDLINE]

Conflict of interest statement: There are no conflicts of interest.

156: Tajmul M, Parween F, Singh L, Mathur SR, Sharma JB, Kumar S, Sharma DN, Yadav S. Identification and validation of salivary proteomic signatures for non-invasive detection of ovarian cancer. Int J Biol Macromol. 2018 Mar;108:503-514. doi: 10.1016/j.ijbiomac.2017.12.014. Epub 2017 Dec 6. PubMed PMID: 29222021.

Ovarian cancer (OC) is one of the most lethal cancers among all gynecological malignancies. An effective and non-invasive screening approach is needed urgently to reduce high mortality rate. The purpose of this study was to identify the salivary protein signatures (SPS) for non-invasive detection of ovarian cancer. Differentially expressed SPS were identified by fluorescence-based 2D-DIGE coupled with MALDI/TOF-MS. The expression levels of three differential proteins (Lipocalin-2, indoleamine-2, 3-dioxygenase1 (IDO1) and S100A8) were validated using western blotting and ELISA. Immunohistochemistry and qRT-PCR were performed in an independent cohort of ovarian tumor tissues. 25 over expressed and 19 under expressed ($p<0.05$) proteins between healthy controls and cancer patients were identified. Lipocalin-2, IDO1 and S100A8 were selected for initial verification and successfully verified by immunoassay. Diagnostic potential of the candidate biomarkers was evaluated by ROC analysis. The selected biomarkers were further validated by immunohistochemistry in an independent cohort of ovarian tissues. The global expression of selected targets was also analyzed by microarray and validated using qRT-PCR to strengthen our hypothesis. Tumor secreted proteins identified by 'dual-omics' strategy, whose concentration are significantly high in ovarian cancer patients have obvious potential to be used as screening biomarker after large scale validation.

DOI: 10.1016/j.ijbiomac.2017.12.014
PMID: 29222021 [Indexed for MEDLINE]

157: Takkar B, Bansal P, Venkatesh P. Leber's Congenital Amaurosis and Gene Therapy. Indian J Pediatr. 2018 Mar;85(3):237-242. doi: 10.1007/s12098-017-2394-1. Epub 2017 Jul 7. PubMed PMID: 28685406.

Retinal blindness is an important cause of pediatric visual loss. Leber's congenital amaurosis (LCA) is one of these causes, often wrongly included in the spectrum of retinitis pigmentosa. The disease has become the center of research after initial reports of success in management with gene therapy. This review discusses in brief the clinical presentation and investigative modalities used in LCA. Further, the road to gene discovery and details of currently applied gene

therapy are presented. LCA is one of the first successfully managed human diseases and offers an entirely new dimension in ocular therapeutics.

DOI: 10.1007/s12098-017-2394-1
PMID: 28685406

158: Talwar S, Siddarth B, Choudhary SK, Airan B. Multiple saccular aortic aneurysms following the arterial switch operation. J Card Surg. 2018 Mar;33(3):156-159. doi: 10.1111/jocs.13552. Epub 2018 Feb 27. PubMed PMID: 29486518.

We report a 3-month-old male presenting with multiple aortic aneurysms arising de novo 2 months following the arterial switch operation. Successful repair of the aneurysms was performed under total circulatory arrest and at seven years follow-up, the patient has no recurrence.

DOI: 10.1111/jocs.13552
PMID: 29486518 [Indexed for MEDLINE]

159: Temkar S, Pujari A, Chawla R, Kumar A. Multimodal imaging in a case of retinocytoma. Indian J Ophthalmol. 2018 Mar;66(3):447-448. doi: 10.4103/ijo.IJO_908_17. PubMed PMID: 29480262; PubMed Central PMCID: PMC5859606.

160: Tikhomirov AS, Lin CY, Volodina YL, Dezhenkova LG, Tatarskiy VV, Schols D, Shtil AA, Kaur P, Chueh PJ, Shchekotikhin AE. New antitumor anthra[2,3-b]furan-3-carboxamides: Synthesis and structure-activity relationship. Eur J Med Chem. 2018 Mar 25;148:128-139. doi: 10.1016/j.ejmech.2018.02.027. Epub 2018 Feb 10. PubMed PMID: 29459273.

Chemical modifications of the anthraquinone scaffold are aimed at optimization of this exceptionally productive class of antitumor drugs. In particular, our previously reported anthra[2,3-b]furan-3-carboxamides demonstrated a high cytotoxic potency in cell culture and in vivo. In this study, we expanded our series of anthra[2,3-b]furan-3-carboxamides by modifying the key functional groups and dissected the structure-activity relationship within this chemotype. The majority of new compounds inhibited the growth of mammalian tumor cell lines at submicromolar to low micromolar concentrations. We found that 4,11-hydroxy groups as well as the carbonyl moiety in the carboxamide fragment were critical for cytotoxicity whereas the substituent at the 2-position of anthra[2,3-b]furan was not. Importantly, the new derivatives were similarly potent against wild type cells and their variants resistant to doxorubicin due to P-glycoprotein (Pgp) expression or p53 inactivation. The most cytotoxic derivatives 6 and 9 attenuated plasmid DNA relaxation by topoisomerase 1. Finally, we demonstrated that 6 and 9 at 1 μM induced intracellular oxidative stress, accumulation in G2/M phase of the cell cycle, and apoptosis in gastric carcinoma cell lines regardless of their p53 status. These results further substantiate the potential of anthra[2,3-b]furan-3-carboxamides as antitumor drug candidates.

DOI: 10.1016/j.ejmech.2018.02.027
PMID: 29459273 [Indexed for MEDLINE]

161: Titiyal JS, Kaur M, Ramesh P, Shah P, Falera R, Bageshwar LMS, Kinkar A, Sharma N. Impact of Clear Corneal Incision Morphology on Incision-Site Descemet Membrane Detachment in Conventional and Femtosecond Laser-Assisted Phacoemulsification. Curr Eye Res. 2018 Mar;43(3):293-299. doi: 10.1080/02713683.2017.1396616. Epub 2017 Nov 9. PubMed PMID: 29120231.

PURPOSE: To assess intraoperative morphology of clear corneal incisions (CCI) and

its impact on incision-site descemet membrane detachment (DMD) in conventional phacoemulsification and femtosecond laser-assisted cataract surgery (FLACS).
METHODS: Prospective comparative study of 129 eyes that underwent either conventional phacoemulsification (Group I, n = 77) or FLACS (Group II, n = 52) was undertaken at an apex tertiary care ophthalmic setup. In group I, a 2.2-mm metal keratome was used to create a biplanar CCI. In group II, femtosecond laser-assisted biplanar CCI was created with 2.2 mm diameter. Incision architecture and incision-site DMD were assessed using microscope-integrated intraoperative OCT (iOCT) and anterior segment OCT on postoperative day (POD) 1 and 30. Visual acuity was assessed on POD 1 and 30.
RESULTS: Smooth slit (SS) or ragged slit (RS) morphology of the proximal opening of CCI was observed immediately after creation [Group I: 68.8% SS, 31.2% RS; Group II: 86.5% SS, 13.5% RS]. DMD was observed in 87.1% cases with RS and 16.3% cases with SS morphology ($p < 0.001$). DMD was more frequent in group I (Group I = 38/77, Group II = 5/52; $p < 0.001$) and most commonly observed during the step of stromal hydration (83.7%). DMD was self-resolving and did not persist in any group at 1 month. Visual acuity was comparable in both groups on POD 1 and 30.
CONCLUSION: Ragged morphology of proximal opening of CCI is the most important predictive factor for incision-site DMD. Femtosecond-laser CCIs have less incision-site DMD as compared to keratome-assisted CCIs. iOCT provides real-time assessment of CCI morphology and DMD.

DOI: 10.1080/02713683.2017.1396616
PMID: 29120231

162: Tiwari V, Karkhur Y, Das A. Concomitant Posterolateral Elbow Dislocation with Ipsilateral Comminuted Intra-articular Distal Radius Fracture: A Rare Orthopaedic Scenario. Cureus. 2018 Mar 3;10(3):e2264. doi: 10.7759/cureus.2264. PubMed PMID: 29732271; PubMed Central PMCID: PMC5933577.

Fracture dislocations are common around the elbow joint. However, closed fracture of the distal radius with ipsilateral elbow dislocation is an uncommon injury pattern. We discuss the case of a middle-aged woman presenting with posterolateral elbow dislocation with concomitant ipsilateral closed intra-articular fracture of the distal radius. It was treated with closed reduction for the elbow dislocation first followed by closed reduction for the distal radius fracture. Even with conservative management, the patient had a good functional outcome at one year. The importance and incidence of such a rare injury pattern and the possible mechanism of injury has been discussed.

DOI: 10.7759/cureus.2264
PMCID: PMC5933577
PMID: 29732271

Conflict of interest statement: The authors have declared that no competing interests exist.

163: Trikha V, Das S, Madegowda A, Agrawal P. Midterm results of trochanteric flip osteotomy technique for management of fractures around the hip. Hip Int. 2018 Mar;28(2):148-155. doi: 10.5301/hipint.5000539. Epub 2017 Sep 10. PubMed PMID: 29027187.

INTRODUCTION: In this study, we aimed to investigate safety and efficacy of the trochanteric flip osteotomy with surgical hip dislocation technique in selected displaced acetabular and femoral head fractures with clinico-radiological outcome and potential complications.
MATERIALS AND METHODS: We retrospectively reviewed 32 patients from January 2009 to June 2014. Selected displaced acetabular fractures with comminution and/or cranial extension of posterior wall, marginal impaction, intraarticular fragment, femoral head fractures and hip fracture-dislocations were operated by this modified approach of trochanteric flip osteotomy and surgical hip dislocation. Patients were evaluated for fracture reduction, femoral head viability,

trochanteric union, abduction power, and functional evaluation was done by Merle d'Aubigné-Postel scoring system. Minimum follow-up was 24 months.
RESULTS: Reduction was judged to be anatomical in 84.38% of cases, and within 1-3 millimetres in 9.38% of cases. All osteotomies healed in an anatomical position. Heterotopic ossification was found in 2 patients limited to Brooker class I. Osteonecrosis developed in 1 patient. 2 patients developed arthritis of the hip as sequelae of poor reduction. Abduction power was MRC 5/5 in all except in 1 patient (4/5). Mean Merle d'Aubigné-Postel score was 16.18; overall good to excellent result was achieved in 87.5% of cases.
CONCLUSIONS: Trochanteric flip osteotomy with surgical dislocation allows better intraarticular assessment, control of intraarticular fragments, assists accurate reduction and the fixation of complex acetabular and femoral head fractures, without compromising femoral head vascularity and abductor strength. This technique has provided excellent midterm results in the management of complex injuries around the hip.

DOI: 10.5301/hipint.5000539
PMID: 29027187

164: Tripathi M, Kumar A, Bal C. Neuroimaging in Parkinsonian Disorders. Neurol India. 2018 Mar-Apr;66(Supplement):S68-S78. doi: 10.4103/0028-3886.226460. Review. PubMed PMID: 29503329.

Neuroimaging (NI) in Parkinson's disease (PD) includes functional techniques like positron emission tomography (PET) and single photon emission computed tomography (SPECT), and morphological imaging using magnetic resonance imaging (MRI) and transcranial sonography to probe different aspects of the neurobiology of PD. Changes in neurotransmitters in various regions of the brain and their influence on brain networks is the basis for the motor symptoms of PD which are interrogated by NI. The recent Movement Disorders Society Clinical Diagnostic Criteria for PD (MDS-PD) have included the results of a few of these neuroimaging techniques to serve as single supportive criteria or absolute exclusion criteria for the diagnosis of PD. While dopaminergic imaging is useful in the early stages of disease to differentiate the neurodegenerative versus non-degenerative causes of parkinsonism like essential tremors, it has also been used for the differential diagnosis of dementia with Lewy bodies (DLB) from Alzheimer's disease (AD), for inclusion of PD patients into clinical trials and for evaluating response to cell-replacement therapies in PD. Metabolic patterns on F-18 fluorodeoxyglucose positron emission tomography have been used effectively for the classification and differential diagnosis of the parkinsonian syndromes using visual and quantitative approaches. Disease related network-patterns have been used for a completely automated approach to differential diagnosis of parkinsonian syndromes on a single case basis. Structural MRI and advanced MR techniques have been used for the classification of PD and the atypical parkinsonian syndromes. Thus, multimodal imaging in PD may aid in an early, accurate and objective diagnostic classification by highlighting the underlying neurochemical and neuroanatomical changes that underlie this spectrum of disorders. The present challenge in PD is to develop radioligands which could bind selectively to alphasynuclein in-vivo.

DOI: 10.4103/0028-3886.226460
PMID: 29503329

Conflict of interest statement: There are no conflicts of interest.

165: Tripathy K, Chawla R, Mutha V, Selvan H. Spontaneous suprachoroidal haemorrhage with exudative retinal detachment in pregnancy-induced hypertension. BMJ Case Rep. 2018 Mar 9;2018. pii: bcr-2017-223907. doi: 10.1136/bcr-2017-223907. PubMed PMID: 29523618.

166: van der Haar F, Knowles J, Bukania Z, Camara B, Pandav CS, Mwai JM, Toure NK, Yadav K. New Statistical Approach to Apportion Dietary Sources of Iodine

Intake: Findings from Kenya, Senegal and India. Nutrients. 2018 Mar 29;10(4). pii: E430. doi: 10.3390/nu10040430. PubMed PMID: 29596369; PubMed Central PMCID: PMC5946215.

Progress of national Universal Salt Iodization (USI) strategies is typically assessed by household coverage of adequately iodized salt and median urinary iodine concentration (UIC) in spot urine collections. However, household coverage does not inform on the iodized salt used in preparation of processed foods outside homes, nor does the total UIC reflect the portion of population iodine intake attributable to the USI strategy. This study used data from three population-representative surveys of women of reproductive age (WRA) in Kenya, Senegal and India to develop and illustrate a new approach to apportion the population UIC levels by the principal dietary sources of iodine intake, namely native iodine, iodine in processed food salt and iodine in household salt. The technique requires measurement of urinary sodium concentrations (UNaC) in the same spot urine samples collected for iodine status assessment. Taking into account the different complex survey designs of each survey, generalized linear regression (GLR) analyses were performed in which the UIC data of WRA was set as the outcome variable that depends on their UNaC and household salt iodine (SI) data as explanatory variables. Estimates of the UIC portions that correspond to iodine intake sources were calculated with use of the intercept and regression coefficients for the UNaC and SI variables in each country's regression equation. GLR coefficients for UNaC and SI were significant in all country-specific models. Rural location did not show a significant association in any country when controlled for other explanatory variables. The estimated UIC portion from native dietary iodine intake in each country fell below the minimum threshold for iodine sufficiency. The UIC portion arising from processed food salt in Kenya was substantially higher than in Senegal and India, while the UIC portions from household salt use varied in accordance with the mean level of household SI content in the country surveys. The UIC portions and all-salt-derived iodine intakes found in this study were illustrative of existing differences in national USI legislative frameworks and national salt supply situations between countries. The approach of apportioning the population UIC from spot urine collections may be useful for future monitoring of change in iodine nutrition from reduced salt use in processed foods and in households.

DOI: 10.3390/nu10040430
PMCID: PMC5946215
PMID: 29596369

Conflict of interest statement: The authors declare no conflict of interest.

167: Venkatesh P. Editorial: Pediatric Ophthalmology - Part II. Indian J Pediatr. 2018 Mar;85(3):207-208. doi: 10.1007/s12098-018-2619-y. Epub 2018 Feb 9. PubMed PMID: 29423668.

168: Venkatesulu BP, Mallick S, Lin SH, Krishnan S. A systematic review of the influence of radiation-induced lymphopenia on survival outcomes in solid tumors. Crit Rev Oncol Hematol. 2018 Mar;123:42-51. doi: 10.1016/j.critrevonc.2018.01.003. Epub 2018 Feb 2. Review. PubMed PMID: 29482778.

Lymphopenia is a common accompaniment of multimodal cancer therapy. As the most radiosensitive cells of the hematopoietic system, lymphocytes residing within or circulating through a radiation portal are frequently depleted by radiation therapy. The recognition that radiation-induced reduction of circulating lymphocyte counts and eventual lymphocyte infiltration of tumors have a tangible impact on overall survival outcomes has revived the interest in understanding the causes of treatment-associated lymphopenia and developing strategies to predict, prevent and ameliorate this well-documented phenomenon. In this systematic review, we have performed a comprehensive search of the literature to elucidate the studies that document a correlation between radiation-associated lymphopenia and survival outcomes in solid malignancies. We also summarize potential unifying

paradigms that account for radiation-induced lymphopenia across studies and lay the groundwork for attempting to explain and/or counter this phenomenon.

DOI: 10.1016/j.critrevonc.2018.01.003
PMID: 29482778 [Indexed for MEDLINE]

169: 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.

170: Vig S, Kumar KR, Poudel D. Acute exacerbation of Chiari malformation: A rare cause for non-awakening from anaesthesia. Indian J Anaesth. 2018 Mar;62(3):238-239. doi: 10.4103/ija.IJA_760_17. PubMed PMID: 29643564; PubMed Central PMCID: PMC5881332.

171: 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.

172: Vinny PW, Vishnu VY, Padma Srivastava MV. Thrombectomy 6 to 24 Hours after Stroke. N Engl J Med. 2018 Mar 22;378(12):1161. doi: 10.1056/NEJMc1801530. PubMed PMID: 29565516.

173: 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.

174: Wood WA, Brazauskas R, Hu ZH, Abdel-Azim H, Ahmed IA, Aljurf M, Badawy S, Beitinjaneh A, George B, Buchbinder D, Cerny J, Dedeken L, Diaz MA, Freytes CO, Ganguly S, Gergis U, Almaguer DG, Gupta A, Hale G, Hashmi SK, Inamoto Y, Kamble RT, Adekola K, Kindwall-Keller T, Knight J, Kumar L, Kuwatsuka Y, Law J, Lazarus HM, LeMaistre C, Olsson RF, Pulsipher MA, Savani BN, Schultz KR, Saad AA, Seftel M, Seo S, Shea TC, Steinberg A, Sullivan K, Szwajcer D, Wirk B, Yared J, Yong A, Dalal J, Hahn T, Khera N, Bonfim C, Atsuta Y, Saber W. Country-Level Macroeconomic Indicators Predict Early Post-Allogeneic Hematopoietic Cell Transplantation Survival in Acute Lymphoblastic Leukemia: A CIBMTR Analysis. Biol Blood Marrow Transplant. 2018 Mar 19. pii: S1083-8791(18)30129-0. doi: 10.1016/j.bbmt.2018.03.016. [Epub ahead of print] PubMed PMID: 29567340.

or patients with acute lymphoblastic leukemia (ALL), allogeneic hematopoietic cell transplantation (alloHCT) offers a potential cure. Life-threatening complications can arise from alloHCT that require the application of sophisticated health care delivery. The impact of country-level economic conditions on post-transplantation outcomes is not known. Our objective was to assess whether these variables were associated with outcomes for patients transplanted for ALL. Using data from the Center for Blood and Marrow Transplant Research, we included 11,261 patients who received a first alloHCT for ALL from 303 centers across 38 countries between the years of 2005 and 2013. Cox regression models were constructed using the following macroeconomic indicators as main effects: Gross national income per capita, health expenditure per capita, and Human Development Index (HDI). The outcome was overall survival at 100 days following transplantation. In each model, transplants performed within lower resourced environments were associated with inferior overall survival. In the model with the HDI as the main effect, transplants performed in the lowest HDI

quartile (n = 697) were associated with increased hazard for mortality (hazard ratio, 2.42; 95% confidence interval, 1.64 to 3.57; P < .001) in comparison with transplants performed in the countries with the highest HDI quartile. This translated into an 11% survival difference at 100 days (77% for lowest HDI quartile versus 88% for all other quartiles). Country-level macroeconomic indices were associated with lower survival at 100 days after alloHCT for ALL. The reasons for this disparity require further investigation.

DOI: 10.1016/j.bbmt.2018.03.016
PMID: 29567340

175: Yenamandra VK, Vellarikkal SK, Chowdhury MR, Jayarajan R, Verma A, Scaria V, Sivasubbu S, Basu Ray S, Dinda AK, Kabra M, Sharma VK, Sethuraman G. Genotype-Phenotype Correlations of Dystrophic Epidermolysis Bullosa in India: Experience from a Tertiary Care Centre. Acta Derm Venereol. 2018 Mar 27. doi: 10.2340/00015555-2929. [Epub ahead of print] PubMed PMID: 29963685.

Recent advances in the field of genomics have seen the successful implementation of whole exome sequencing as a rapid and efficient diagnostic strategy in several genodermatoses. The aim of this study was to explore the potential of molecular studies in dystrophic epidermolysis bullosa in India. Whole exome sequencing was performed using genomic DNA from each case of epidermolysis bullosa, followed by massively parallel sequencing. Resulting reads were mapped to the human reference genome hg19. Sanger sequencing subsequently confirmed the potentially pathogenic mutations. Whole exome sequencing of 18 patients with dystrophic epidermolysis bullosa from 17 unrelated Indian families revealed 20 distinct sequence variants in the COL7A1 gene including 2 widely prevalent mutations. Dominant inheritance was seen in 7 patients, while 11 patients showed a highly variable recessive dystrophic epidermolysis bullosa phenotype. This preliminary study using exome sequencing is clearly encouraging and will serve as the basis for future large-scale molecular studies to actively identify and understand dystrophic epidermolysis bullosa in the Indian population.

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PMID: 29963685