List of publications of AIIMS, New Delhi for the month of April, 2017 [Source: www.pubmed.com].

1: Agarwala S, Mitra A, Bansal D, Kapoor G, Vora T, Prasad M, Chinnaswamy G, Arora B, Radhakrishnan V, Laskar S, Kaur T, Dhaliwal RS, Rath GK, Bakhshi S. Management of Pediatric Malignant Germ Cell Tumors: ICMR Consensus Document. Indian J Pediatr. 2017 Jun;84(6):465-472. doi: 10.1007/s12098-017-2308-2. Epub 2017 Apr 1. Review. PubMed PMID: 28364343.

With the introduction of cisplatin, the outcome of children with malignant germ cell tumors (MGCT) has improved to nearly 90% 5 year survival. Over the years, through the results of various multinational co-operative trials, the chemotherapy and surgical guidelines for both the gonadal and extra-gonadal MGCTs have been refined to decrease the early and late morbidities and at the same time improve survival. Introduction of risk categorization has further added to this effort. There has been no recommendation on how the children with malignant germ cell tumors should be treated in India. The current manuscript is written with the objective of developing a consensus guideline for practitioners at a National level. Based on extensively reviewed literature and personal experience of the major pediatric oncology centres in India, the ICMR Expert group has made recommendations for management of children with MGCT India.

DOI: 10.1007/s12098-017-2308-2
PMID: 28364343

2: Agrawal V, Joshi MK, Gupta AK, Jain BK. Wound Outcome Following Primary and Delayed Primary Skin Closure Techniques After Laparotomy for Non-Traumatic Ileal Perforation: a Randomized Clinical Trial. Indian J Surg. 2017 Apr;79(2):124-130. doi: 10.1007/s12262-015-1438-x. Epub 2016 Jan 15. PubMed PMID: 28442838; PubMed Central PMCID: PMC5386937.

To study the effect of primary and delayed primary closure of skin incision on wound outcome in patients with non-traumatic ileal perforation, 68 patients of ileal perforation were studied in a prospective randomized clinical trial. Patients fulfilling inclusion criteria were divided into ileostomy and non-ileostomy groups, both of which were then randomized into two subgroups each depending on whether skin was closed primarily or in a delayed primary manner. Wound infection and dehiscence were the main outcome parameters studied. The data collected was analyzed using appropriate statistical tools taking significant p value at 5 %. Most patients were 21-30 years of age. Male:female ratio was 3.2:1. The overall incidence of wound infection was 63 %. Wound infection was strongly associated with the incidence of superficial wound dehiscence and total wound dehiscence that were 11.76 and 47 %, respectively. Mortality was 10.3 %. Methodology of wound closure has no significant impact on incidence of wound infection, wound dehiscence, and mortality, although the onset of wound complications is significantly delayed with delayed primary closure of the skin.

DOI: 10.1007/s12262-015-1438-x
PMCID: PMC5386937 [Available on 2018-04-01]
PMID: 28442838

3: Aji Alex MR, Nehate C, Veeranarayanan S, Kumar DS, Kulshreshtha R, Koul V. Self assembled dual responsive micelles stabilized with protein for co-delivery of drug and siRNA in cancer therapy. Biomaterials. 2017 Jul;133:94-106. doi: 10.1016/j.biomaterials.2017.04.022. Epub 2017 Apr 17. PubMed PMID: 28433941.

Design of safe and efficient vehicles for the combinatorial delivery of drugs and genetic agents is an emerging requisite for achieving enhanced therapeutic effect in cancer. Even though several nanoplatforms have been explored for the co-delivery of drugs and genetic materials the translation of these systems to clinical phase is still a challenge, mainly due to tedious synthesis procedures, lack of serum stability, inefficient scalability etc. Here in, we report development of reduction and pH sensitive polymeric graft of low molecular weight poly (styrene -alt -maleic anhydride) and evaluation of its efficacy in co-delivering drug and siRNA. The polymer was modified with suitable components,

which could help in overcoming various systemic and cellular barriers for successful co-delivery of drugs and nucleic acids to cancer cells, using simple chemical reactions. The polymeric derivative could easily self assemble in water to form smooth, spherical micellar structures, indicating their scalability. Doxorubicin and PLK-1 siRNA were selected as model drug and nucleic acid, respectively. Doxorubicin could be loaded in the self assembling micelles with an optimum loading content of ~8.6% w/w and efficient siRNA complexation was achieved with polymer/siRNA weight ratios >40. The polyplexes were stabilized in physiological saline by coating with bovine serum albumin (BSA). Stable drug loaded nanoplexes, for clinical administration, could be easily formulated by gently dispersing them in physiological saline containing appropriate amount of albumin. Drug release from the nanoplexes was significantly enhanced at low pH (5) and in the presence of 10 mM glutathione (GSH) showing their dual stimuli sensitive nature. In vitro cell proliferation assay and in vivo tumor regression study have shown synergistic effect of the drug loaded nanoplexes in inhibiting cancer cell proliferation. Facile synthesis steps, scalability and ease of formulation depict excellent clinical translation potential of the proposed nanosystem.

DOI: 10.1016/j.biomaterials.2017.04.022
PMID: 28433941

4: Angmo D, Wadhwani M, Velpandian T, Kotnal A, Sihota R, Dada T. Evaluation of physical properties and dose equivalency of generic versus branded latanoprost formulations. Int Ophthalmol. 2017 Apr;37(2):423-428. doi: 10.1007/s10792-016-0280-x. Epub 2016 Jun 22. PubMed PMID: 27334605.

The purpose of this study was to comparatively evaluate the pharmaceutical characteristics of various marketed generic formulations of prostaglandin analogue latanoprost in the Indian market. Three generics of latanoprost and one branded (Xalatan) formulation (five vials each) were obtained from authorized agents from the respective commercial sourcing having the same batch number. These formulations were coded, and the labels were removed. At a standardized room temperature of 25 °C, the concentration, osmolarity, drop size, pH, and total drops per vial were determined for Xalatan and all the generics of latanoprost. The concentration of various brands varied between 50.49 ± 0.36 and 58.90 ± 0.52 µg/ml as compared to the standard labeled concentration of 50 µg/ml on the latanoprost vials. The concentration of drugs in individual drop varied from 1.30 ± 0.05 to 1.78 ± 0.04 µg/drop. The volume of drug formulation per bottle varied from 2.4 ± 0.12 to 2.6 ± 0.09 ml/bottle. The number of drops per bottle varied from minimum of 88.60 ± 0.10 drops to maximum of 102.0 ± 4.3 drops across all the formulations, while the drop size varied from 25.72 ± 2.70 to 29.97 ± 1.38 µl. The osmolarity of 2/4 drugs was within 300 mOs M (±10 %). The specific gravity varied between 0.98 ± 0.01 and 1.007 ± 0.01, while pH was between 7.05 ± 0.004 and 7.13 ± 0.005. Two of the generic brands were outside the United States pharmacopoeia limits (±10%) for ophthalmic formulation, with concentration exceeding the limits by 3 % (p = 0.151) and 8 % (p = 0.008), respectively. This pilot study highlights that there are significant variations in the drug concentrations and physical properties of generic latanoprost formulations. Although none of the brands had concentrations below the recommended level, two of the brands had concentrations exceeding the limits by 3 and 8 %, respectively.

DOI: 10.1007/s10792-016-0280-x
PMID: 27334605 [Indexed for MEDLINE]

5: Appunni S, Rajisha PM, Rubens M, Chandana S, Singh HN, Swarup V. Targeting PknB, an eukaryotic-like serine/threonine protein kinase of Mycobacterium tuberculosis with phytomolecules. Comput Biol Chem. 2017 Apr;67:200-204. doi: 10.1016/j.compbiolchem.2017.01.003. Epub 2017 Jan 9. PubMed PMID: 28131886.

Tuberculosis (TB), caused by Mycobacterium tuberculosis is one of the most lethal communicable disease globally. As per the WHO Global TB Report (2015), 9.6 million cases were reported in year 2014 alone. The receptor-like protein kinase, PknB is crucial for sustained mycobacterial growth. Therefore, PknB can be a potential target to develop anti-tuberculosis drugs. In present study, we performed a comparative study to investigate binding efficacies of three phytomolecules namely, Demethylcalabaxanthone, Cryptolepine hydrochloride and Ermanin. 3D structures of PknB and phytomolecules were retrieved from Protein Data Bank (PDB ID: 2FUM) and PubChem Chemical Compound Database, respectively. PknB was set to be rigid and phytochemicals were kept free to rotate. All computational simulations were carried out using Autodock 4.0 on Windows platform. In-silico study demonstrated a strong complex formation (large binding constants and low ΔG) between phytomolecules and target protein PknB of Mycobacterium tuberculosis. However, Demethylcalabaxanthone was able to bind PknB more strongly (Kb=6.8×10(5)M(-1), ΔG=-8.06kcal/mol) than Cryptolepine hydrochloride (Kb=3.06×10(5)M(-1), ΔG=-7.58kcal/mol) and Ermanin (Kb=9.8×10(4)M(-1), ΔG=-6.9kcal/mol). These in silico analysis indicate that phytomolecules are capable to target PknB protein efficiently which is vital for mycobacterial survival and therefore can be excellent alternatives to conventional anti-tuberculosis drugs.

DOI: 10.1016/j.compbiolchem.2017.01.003
PMID: 28131886

6: Arif N, Juyal D, Sebastian S, Khanna N, Dhawan B. Analysis of laboratory testing results for Chlamydia trachomatis infection in an STI clinic in India: Need for extragenital screening. Int J Infect Dis. 2017 Apr;57:1-2. doi: 10.1016/j.ijid.2017.01.004. Epub 2017 Jan 11. PubMed PMID: 28088589.

BACKGROUND: Extragenital sites are believed to serve as hidden reservoirs for ongoing transmission of infection. In addition, treatment for rectal Chlamydia infection is different from that of genital Chlamydia infection. Many cases may be missed if only genital testing is performed.
METHODS: Between September 2015 and August 2016, all male and female attendees at an STI clinic of a tertiary care hospital with genital and or extragenital discharge were screened for CT infection. Samples included endocervical swabs in women, urethral swabs and urine samples in men. Rectal and pharyngeal samples were collected wherever indicated.
RESULTS: Of total of 439 samples collected from 417 patients (245 women and 172 men), samples from women had a high positivity rate than men. (13.6% and 11%). High rates of rectal CT was detected nearly 30.43%. All rectal positive cases except one had no concomitant genital infection.
CONCLUSIONS: Prevalence of extragenital Chlamydia is increasing in men as well as women. What needs to be stressed on is the sexual behaviour of an individual and not the sexual identity. Further studies are needed to help formulate guidelines and recommendations for extragenital screening in a population.

DOI: 10.1016/j.ijid.2017.01.004
PMID: 28088589 [Indexed for MEDLINE]

7: Arora G, Mishra R, Kumar P, Yadav M, Ballal S, Bal C, Damle NA. Estimation of Whole Body Radiation Exposure to Nuclear Medicine Personnel During Synthesis of (177)Lutetium-labeled Radiopharmaceuticals. Indian J Nucl Med. 2017 Apr-Jun;32(2):89-92. doi: 10.4103/0972-3919.202245. PubMed PMID: 28533634; PubMed Central PMCID: PMC5439194.

PURPOSE OF THE STUDY: With rapid development in the field of nuclear medicine therapy, radiation safety of the personnel involved in synthesis of radiopharmaceuticals has become imperative. Few studies have been done on

estimating the radiation exposure of personnel involved in the radio labeling of (177)Lu-compounds in western countries. However, data from the Indian subcontinent are limited. We have estimated whole body radiation exposure to the radiopharmacist involved in the labeling of: (177)Lu-DOTATATE, (177)Lu-PSMA-617, and (177)Lu-EDTMP.
MATERIALS AND METHODS: Background radiation was measured by keeping a pocket dosimeter around the workbench when no radioactive work was conducted. The same pocket dosimeter was given to the radiopharmacist performing the labeling of (177)Lu-compounds. All radiopharmaceuticals were synthesized by the same radiopharmacist with 3, 1 and 3 year experience, respectively, in radiolabeling the above compounds.
RESULTS: One Curie (1 Ci) of (177)Lu was received fortnightly by our department. Data were collected for 12 syntheses of (177)Lu-DOTATATE, 8 syntheses of (177)Lu-PSMA-617, and 3 syntheses of (177)Lu-EDTMP. Mean time required to complete the synthesis was 0.81, 0.65, and 0.58 h, respectively. Mean whole body radiation exposure was 0.023 ± 0.01 mSv, 0.01 ± 0.002 mSv, and 0.002 ± 0.0006 mSv, respectively. Overall mean radiation dose for all the three (177)Lu-compounds was 0.014 mSv. Highest exposure was obtained during the synthesis of (177)Lu-DOTATATE.
CONCLUSION: Our data suggest that the manual radiolabeling of (177)Lu compounds is safe, and the whole body radiation exposure to the involved personnel is well within prescribed limits.

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PMCID: PMC5439194
PMID: 28533634

Conflict of interest statement: There are no conflicts of interest

8: Bakhshi S, Bhethanabhotla S, Kumar R, Agarwal K, Sharma P, Thulkar S, Malhotra A, Dhawan D, Vishnubhatla S. Posttreatment PET/CT Rather Than Interim PET/CT Using Deauville Criteria Predicts Outcome in Pediatric Hodgkin Lymphoma: A Prospective Study Comparing PET/CT with Conventional Imaging. J Nucl Med. 2017 Apr;58(4):577-583. doi: 10.2967/jnumed.116.176511. Epub 2016 Oct 6. PubMed PMID: 27754902.

Data about the significance of (18)F-FDG PET at interim assessment and end of treatment in pediatric Hodgkin lymphoma (HL) are limited. Methods: Patients (≤18 y) with HL were prospectively evaluated with contrast-enhanced CT (CECT) and PET combined with low-dose CT (PET/CT) at baseline, after 2 cycles of chemotherapy, and after completion of treatment. Revised International Working Group (RIW) criteria and Deauville 5 point-scale for response assessment by PET/CT were used. All patients received doxorubicin (Adriamycin), bleomycin, vinblastine, dacarbazine chemotherapy along with involved-field radiotherapy (25 Gy) for early stage (IA, IB, and IIA) and advanced stage (IIB-IV) with bulky disease. Results: Of the 57 enrolled patients, median follow-up was 81.6 mo (range, 11-97.5 mo). Treatment decisions were based on CECT. At baseline, PET/CT versus CECT identified 67 more disease sites; 23 patients (40.3%) were upstaged and of them in 9 patients (39%) upstaging would have affected treatment decision; notably none of these patients relapsed. The specificity of interim PET/CT based on RIW criteria (61.5%) and Deauville criteria (91.4%) for predicting relapse was higher than CECT (40.3%) ($P = 0.03$ and $P < 0.0001$, respectively). Event-free survival based on interim PET/CT (RIW) response was 93.3 ± 4.1 versus 89.6 ± 3.8 (positive vs. negative scan, respectively; $P = 0.44$). The specificity of posttreatment PET/CT (Deauville) was 95.7% versus 76.4% by CECT ($P = 0.006$). Posttreatment PET/CT (Deauville) showed significantly inferior overall survival in patients with positive scan versus negative scan results (66.4 ± 22.5 vs. 94.5 ± 2.0, $P = 0.029$). Conclusion: Interim PET/CT has better specificity, and use of Deauville criteria further improves it. Escalation of therapy based on interim PET in pediatric HL needs further conclusive evidence to justify its use. Posttreatment PET/CT (Deauville) predicts overall survival and has better specificity in comparison to conventional imaging.

DOI: 10.2967/jnumed.116.176511
PMID: 27754902 [Indexed for MEDLINE]

9: Bansal D, Totadri S, Chinnaswamy G, Agarwala S, Vora T, Arora B, Prasad M, Kapoor G, Radhakrishnan V, Laskar S, Kaur T, Rath GK, Bakhshi S. Management of Neuroblastoma: ICMR Consensus Document. Indian J Pediatr. 2017 Jun;84(6):446-455. doi: 10.1007/s12098-017-2298-0. Epub 2017 Apr 3. Review. PubMed PMID: 28367616.

Neuroblastoma (NBL) is the most common extra-cranial solid tumor in childhood. High-risk NBL is considered challenging and has one of the least favourable outcomes amongst pediatric cancers. Primary tumor can arise anywhere along the sympathetic chain. Advanced disease at presentation is common. Diagnosis is established by tumor biopsy and elevated urinary catecholamines. Staging is performed using bone marrow and mIBG scan (FDG-PET/bone scan if mIBG unavailable or non-avid). Age, stage, histopathological grading, MYCN amplification and 11q aberration are important prognostic factors utilized in risk stratification. Low-risk disease including Stage 1 and asymptomatic Stage 2 disease has an excellent prognosis with non-mutilating surgery alone. Perinatal adrenal neuroblastoma may be managed with close observation alone. Intermediate-risk disease consisting largely of unresectable/symptomatic Stage 2/3 disease and infants with Stage 4 disease has good outcome with few cycles of chemotherapy followed by surgical resection. Paraspinal neuroblastomas with cord compression are treated emergently, typically with upfront chemotherapy. Asymptomatic Stage 4S disease may be followed closely without treatment. Organ dysfunction and age below 3 mo would warrant chemotherapy in 4S. High-risk disease includes older children with Stage 4 disease and MYCN amplified tumors. High-risk disease has a suboptimal outcome, though the survival is improving with multimodality therapy including autologous stem cell transplant and immunotherapy. Relapse after multimodality therapy is difficult to salvage. Late presentation, lack of transplant facility, malnutrition and treatment abandonment are additional hurdles for survival in India. The review provides a consensus document on management of NBL for developing countries, including India.

DOI: 10.1007/s12098-017-2298-0
PMID: 28367616

10: Bansal S, Suri A, Sharma MC, Kakkar A. Isolated lumbar intradural extra medullary spinal cysticercosis simulating tarlov cyst. Asian J Neurosurg. 2017 Apr-Jun;12(2):279-282. doi: 10.4103/1793-5482.150225. PubMed PMID: 28484552; PubMed Central PMCID: PMC5409388.

Spinal cysticercosis is a very uncommon manifestation of neurocysticercosis, which is caused by the larvae of Taenia solium. Here, we present a rare case of isolated lumbar intradural extramedullary neurocysticercosis, initially thought to be Tarlov cyst. A 40-year-old man, presented with low backache for 1-year with radiation of pain to right leg for 3 months. The patient was treated successfully with the surgical removal of the cyst, followed by medical treatment. Spinal neurocysticercosis should be considered in the differential diagnosis in high-risk populations, with new symptoms suggestive of a spinal mass lesion.

DOI: 10.4103/1793-5482.150225
PMCID: PMC5409388
PMID: 28484552

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

11: Bansal S, Borkar SA, Mahapatra AK. A common case with an unusual association: Chiari I malformation with holocord syrinx. Asian J Neurosurg. 2017 Apr-Jun;12(2):241-243. doi: 10.4103/1793-5482.144169. PubMed PMID: 28484540; PubMed Central PMCID: PMC5409376.

Authors are presenting a common case of Chiari malformation but with a very unusual associated finding, holocord syringomyelia, which responded to posterior fossa decompression. An 11-year-old male patient presented with progressive left hemiparesis and numbness on left half of the body for 4 years. Magnetic resonance imaging of the spine revealed peg-shaped herniation of tonsils 8 mm below the foramen magnum and holocord syringomyelia. No focal intraspinal mass was seen. Chiari I malformation with holocord syrinx was diagnosed. The patient underwent posterior fossa decompression with subpial resection of both tonsils with augmentation duraplasty. Post-operatively, patient improved clinically as well as radiologically.

DOI: 10.4103/1793-5482.144169
PMCID: PMC5409376
PMID: 28484540

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

12: Bansal S, Borkar SA, Mahapatra AK. Association of brain abscess with a mycotic aneurysm of the contralateral internal carotid artery in a patient of cyanotic heart disease. Asian J Neurosurg. 2017 Apr-Jun;12(2):220-223. doi: 10.4103/1793-5482.144171. PubMed PMID: 28484536; PubMed Central PMCID: PMC5409372.

Congenital cyanotic heart disease can lead to intra-cranial involvement. Authors report a very rare case of right intra-cerebral abscess diagnosed on computerized tomography (CT) scan and simultaneous presence of an aneurysm of the left internal carotid artery diagnosed on CT angiogram in a 15-year-old child with congenital cyanotic heart disease with recent onset left hemiparesis. Right cerebral abscess was tapped and left internal carotid aneurysm was planned to be followed up by giving antibiotics and serial angiograms, but he could not survive and died due to non-cranial cause. We conclude that cerebral angiography is necessary to diagnose cerebro-vascular complications, including infectious aneurysms, in cases presenting with unusual findings on neuroimaging study. Patient must undergo serial angiography while being on intravenous antibiotics. Intervention (either surgical or endovascular) should be considered if there are no signs of regression of size of aneurysm or in the presence of aneurysm rupture. We have not been able to find a similar case in the English literature.

DOI: 10.4103/1793-5482.144171
PMCID: PMC5409372
PMID: 28484536

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

13: Bansal S, Borkar SA, Mahapatra AK. Hydrocephalus associated with spinal intramedullary pilocytic astrocytoma. Asian J Neurosurg. 2017 Apr-Jun;12(2):217-219. doi: 10.4103/1793-5482.144174. PubMed PMID: 28484535; PubMed Central PMCID: PMC5409371.

Hydrocephalus secondary to intraspinal tumors is a well-known but rare condition. We report a case of holocord intramedullary pilocytic astrocytoma associated with hydrocephalus in a 29-year-old male patient. He underwent ventriculoperitoneal shunt followed by subtotal resection of the tumor.

DOI: 10.4103/1793-5482.144174
PMCID: PMC5409371
PMID: 28484535

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

14: Barik M, Kumar A, Mishra PR, Kapoor PM. Role of MicroRNA in cardiac anesthesia: An innovative consequences and new possibility. Ann Card Anaesth. 2017 Apr-Jun;20(2):274-275. doi: 10.4103/aca.ACA_37_16. PubMed PMID: 28393800;

PubMed Central PMCID: PMC5408545.

15: Batra P, Mathur P, Misra MC. Clinical characteristics and prognostic factors of patients with Stenotrophomonas maltophilia infections. J Lab Physicians. 2017 Apr-Jun;9(2):132-135. doi: 10.4103/0974-2727.199639. PubMed PMID: 28367030; PubMed Central PMCID: PMC5320877.

INTRODUCTION: Stenotrophomonas maltophilia earlier had limited pathogenic potential, but now with growing degree of immunosuppression in general population, it is being recognized as an important nosocomial pathogen.
METHODOLOGY: A retrospective 7 years study was carried out to determine the clinical characteristics of all patients with Stenotrophomonas infections, antibiotic resistance pattern, and risk factors associated with hospital mortality. All patients with Stenotrophomonas culture positivity were identified and their medical records were reviewed. Risk factor associated with hospital mortality was analyzed.
RESULTS: A total of 123 samples obtained from 88 patients were culture positive. Most patients presented with bacteremia (45, 51%) followed by pneumonia (37, 42%) and skin and soft tissue infections (6, 7%). About 23 of 88 Stenotrophomonas infected patients had co-infection. Percentage resistance to cotrimoxazole; 8 (5.4%) was lower than that for levofloxacin; 18 (12%). Twenty-eight patients died during hospital stay. Intensive Care Unit admission (P = 0.0002), mechanical ventilation (P = 0.0004), central venous catheterization (P = 0.0227), urethral catheterization (P = 0.0484), and previous antibiotic intake (P = 0.0026) were independent risk factors associated with mortality.
CONCLUSION: Our findings suggest that Stenotrophomonas can cause various infections irrespective of patient's immune status and irrespective of potential source. Thus, Stenotrophomonas should be thought of as potential pathogen and its isolation should be looked with clinical suspicion.

DOI: 10.4103/0974-2727.199639
PMCID: PMC5320877
PMID: 28367030

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

16: Baumgartner JE, Blount JP, Blauwblomme T, Chandra PS. Technical descriptions of four hemispherectomy approaches: From the Pediatric Epilepsy Surgery Meeting at Gothenburg 2014. Epilepsia. 2017 Apr;58 Suppl 1:46-55. doi: 10.1111/epi.13679. Review. PubMed PMID: 28386922.

Hemispherectomy is a complex multistep procedure with a steep learning curve. Several surgical approaches have been developed, but each requires considerable practice to master. Four experienced pediatric neurosurgeons, who participated in the 2014 Gothenburg Pediatric Epilepsy Surgery Meeting, provided succinct technical summaries of four hemispherectomy approaches: modified functional hemispherectomy, peri-insular hemispherotomy, parasagittal hemispherotomy, and endoscopic-assisted hemispherotomy. No clinical or outcome data are included. Our intention is to reduce the slope and length of the learning curve for surgeons and to improve the understanding of the technical details of hemispherectomy surgery by nonsurgeonmembers of epilepsy teams.

DOI: 10.1111/epi.13679
PMID: 28386922 [Indexed for MEDLINE]

17: Bhad R. Red Blood Cell and Platelet Indices: A Potential Biomarker for Panic Disorder. J Neurosci Rural Pract. 2017 Apr-Jun;8(2):164. doi: 10.4103/jnrp.jnrp_33_17. PubMed PMID: 28479785; PubMed Central PMCID: PMC5402477.

18: Bhardwaj M, Sen S, Chosdol K, Sharma A, Pushker N, Kashyap S, Bakhshi S, Bajaj MS. miRNA-200c and miRNA-141 as potential prognostic biomarkers and regulators of epithelial-mesenchymal transition in eyelid sebaceous gland carcinoma. Br J Ophthalmol. 2017 Apr;101(4):536-542. doi: 10.1136/bjophthalmol-2016-309460. Epub 2017 Jan 24. PubMed PMID: 28119291.

BACKGROUND: MicroRNA (miRNA)-200c and miRNA-141 are tumour suppressors, which regulate epithelial-mesenchymal transition (EMT), leading to tumour invasion and metastasis in various malignancies. miRNA-200c and miRNA-141 maintain the epithelial phenotype by post-transcriptionally inhibiting the E-cadherin repressors, zinc finger E-box binding homeobox (ZEB)1 and ZEB2. The present study was performed to determine the prognostic significance of miRNA-200c and miRNA-141, and their association with EMT markers ZEB1, ZEB2 and E-cadherin in eyelid sebaceous gland carcinoma (SGC).
METHODS: Expression levels of miRNA-200c and miRNA-141 were determined in 42 eyelid SGC cases by quantitative real-time PCR (qPCR). Their association with ZEB1, ZEB2 and E-cadherin was determined by qPCR and immunohistochemistry. Kaplan-Meier plots and Spearman's rank correlation tests were applied to analyse the data. Patients were followed up for 7-44 months.
RESULTS: Low expression levels of miRNA-200c and miRNA-141 were seen in 36/42 (86%) and 28/42 (67%) cases, respectively. Low miRNA-200c correlated significantly with large tumour size (p=0.03) and poor differentiation (p=0.03). Low miRNA-141 correlated significantly with large tumour size (p=0.02) and lymph node metastasis (p=0.04). Survival analysis revealed that patients with low miRNA-200c (p<0.05) and miRNA-141 expression (p=0.07) had shorter disease-free survival. There was a significant association of both miRNA-200c and miRNA-141 with E-cadherin and ZEB2 expression.
CONCLUSIONS: Low levels of miRNA-200c and miRNA-141 in patients with eyelid SGC facilitates tumour progression by promoting EMT and miRNA-200c has emerged as a novel potential predictor of survival.

DOI: 10.1136/bjophthalmol-2016-309460
PMID: 28119291 [Indexed for MEDLINE]

19: Bhardwaj V, Malhotra P, Hasija S, Chowdury UK, Pangasa N. Coagulopathies in cyanotic cardiac patients: An analysis with three point - of - care testing devices (Thromboelastography, rotational thromboelastometry, and sonoclot analyzer). Ann Card Anaesth. 2017 Apr-Jun;20(2):212-218. doi: 10.4103/aca.ACA_4_17. PubMed PMID: 28393783; PubMed Central PMCID: PMC5408528.

INTRODUCTION: In the last few years, viscoelastic point-of-care (POC) coagulation devices such as thromboelastography (TEG), rotational thromboelastometry (ROTEM), and Sonoclot (SON) analyzer have been increasingly used in major surgeries for timely assessment and management of coagulopathies. The aim of the present study was to evaluate coagulation profile of cyanotic cardiac patients with TEG, ROTEM, and SON analyzer. In addition, we assessed the correlation of standard laboratory coagulation tests and postoperative chest drain output (CDO) with the parameters of POC testing devices.
MATERIALS AND METHODS: Thirty-five patients of either gender, belonging to the American Society of Anesthesiologists Grade I-III, and undergoing elective cardiac surgery on cardiopulmonary bypass for cyanotic congenital heart disease were included in this study. To identify possible coagulation abnormalities, blood samples for TEG, ROTEM, SON, and standard laboratory coagulation were collected after induction of anesthesia. The correlations between variables were assessed using Pearson's correlation coefficient. P < 0.05 was considered statistically significant.
RESULTS AND DISCUSSION: EXTEM clot time (CT) and clot formation time (CFT) were prolonged in 87% and 45% patients whereas INTEM CT and CFT were prolonged in 36%

and 73% patients, respectively. FIBTEM maximum clot firmness (MCF) was decreased in 30% patients. We observed significant correlation between fibrinogen concentration and ROTEM FIBTEM MCF ($r = 0.94$, $P < 0.001$). The SON platelet function (SON PF) showed good correlation with platelet count ($r = 0.85$, $P < 0.001$). We also found significant correlation between preoperative FIBTEM MCF and CDO in first 4 postoperative hours ($r = 0.49$, $P = 0.004$) and 24 postoperative hours ($r = 0.52$, $P = 0.005$). Receiver operating characteristic analysis demonstrated that SON PF and TEG maximum amplitude are highly predictive of thrombocytopenia below 100 × 109/L (area under the curve [AUC] - 0.97 and 0.92, respectively), while FIBTEM-MCF is highly predictive of hypofibrinogenemia (fibrinogen <150 mg/dL (AUC, 0.99).
CONCLUSION: Cyanotic cardiac patients have preoperative coagulation abnormalities in ROTEM, TEG, and SON parameters. ROTEM FIBTEM is highly predictive of hypofibrinogenemia while SON PF is highly predictive of thrombocytopenia. ROTEM FIBTEM can be studied as a marker of increased postoperative CDO.

DOI: 10.4103/aca.ACA_4_17
PMCID: PMC5408528
PMID: 28393783

20: Bindu B, Singh GP, Chowdhury T, Schaller B. Rhinitis and sleep disorders: The trigeminocardiac reflex link? Med Hypotheses. 2017 Jun;103:96-99. doi: 10.1016/j.mehy.2017.04.019. Epub 2017 Apr 25. PubMed PMID: 28571821.

Rhinitis, allergic or non-allergic, is an inflammatory condition of the nose. It is associated with a wide range of sleep disorders that are generally attributed to nasal congestion and presence of inflammatory mediators like cytokines and interleukins. However, the pathophysiological mechanisms behind these sleep disorders remain unclear. On the other hand, the trigeminocardiac reflex (TCR) has recently been linked to various sleep disorders like obstructive sleep apnea, sleep bruxism and rapid eye movement (REM) sleep apnea. TCR can be incited by stimulation of the trigeminal nerve or the area innervated by its branches including the nasal mucosa. Trigeminal nasal afferents can be activated on exposure to noxious stimuli (mechanical or chemical) like ammonia vapors, carbon-dioxide, nicotine, hypertonic saline, air-puffs and smoke. In rhinitis, there is associated neuronal hyper-responsiveness of sensory nasal afferents due to inflammation (which can be suppressed by steroids). This may further lead to increased occurrence of TCR in rhinitis. Moreover, there is involvement of autonomic nervous system both in rhinitis and TCR. In TCR, parasympathetic over activity and sympathetic inhibition leads to sudden onset bradycardia, hypotension, apnea and gastric motility. Also, the autonomic imbalance reportedly plays a significant role in the pathophysiology of rhinitis. Thus, considering these facts we hypothesize that the TCR could be the link between rhinitis and sleep disorders and we believe that further research in this direction may yield significant development in our understanding of sleep disorders in rhinitis.

DOI: 10.1016/j.mehy.2017.04.019
PMID: 28571821

21: Bopanna S, Ananthakrishnan AN, Kedia S, Yajnik V, Ahuja V. Risk of colorectal cancer in Asian patients with ulcerative colitis: a systematic review and meta-analysis. Lancet Gastroenterol Hepatol. 2017 Apr;2(4):269-276. doi: 10.1016/S2468-1253(17)30004-3. Epub 2017 Feb 21. PubMed PMID: 28404156.

BACKGROUND: The increased risk of colorectal cancer in ulcerative colitis is well known. The risk of sporadic colorectal cancer in Asian populations is considered low and risk estimates of colorectal cancer related to ulcerative colitis from Asia vary. This meta-analysis is an Asian perspective on the risk of colorectal cancer related to ulcerative colitis.
METHODS: We searched PubMed and Embase for terms related to colorectal cancer in ulcerative colitis from inception to July 1, 2016. The search for published

articles was done by country for all countries in Asia. We included studies with information on the prevalence and cumulative risk of colorectal cancer at various timepoints. A random-effects meta-analysis was done to calculate the pooled prevalence as well as a cumulative risk at 10 years, 20 years, and 30 years of disease.
FINDINGS: Our search identified 2575 articles; of which 44 were eligible for inclusion. Our analysis included a total of 31 287 patients with ulcerative colitis with a total of 293 reported colorectal cancers. Using pooled prevalence estimates from various studies, the overall prevalence was 0·85% (95% CI 0·65-1·04). The risks for colorectal cancer were 0·02% (95% CI 0·00-0·04) at 10 years, 4·81% (3·26-6·36) at 20 years, and 13·91% (7·09-20·72) at 30 years. Subgroup analysis by stratifying the studies according to region or period of the study did not reveal any significant differences.
INTERPRETATION: We found the risk of colorectal cancer in Asian patients with ulcerative colitis was similar to recent estimates in Europe and North America. Adherence to screening is therefore necessary. Larger population-based, prospective studies are required for better estimates of the risk.
FUNDING: Indo-US Science and Technology Forum.

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PMID: 28404156

22: CerdÃ¡ J, Mohan S, Garcia-Garcia G, Jha V, Samavedam S, Gowrishankar S, Bagga A, Chakravarthi R, Mehta R. Acute Kidney Injury Recognition in Low- and Middle-Income Countries. Kidney Int Rep. 2017 Jul;2(4):530-543. doi: 10.1016/j.ekir.2017.04.009. Epub 2017 Apr 25. PubMed PMID: 29034358; PubMed Central PMCID: PMC5637391.

Acute kidney injury (AKI) is increasingly common around the world. Because of the low availability of effective therapies and resource limitations, early preventive and therapeutic measures are essential to decrease morbidity, mortality, and cost. Timely recognition and diagnosis of AKI requires a heightened degree of suspicion in the appropriate clinical and environmental context. In low- and middle-income countries (LMICs), early detection is impaired by limited resources and low awareness. In this article, we report the consensus recommendations of the 18th Acute Dialysis Quality Initiative meeting in Hyderabad, India, on how to improve recognition of AKI. We expect these recommendations will lead to an earlier and more accurate diagnosis of AKI, and improved research to promote a better understanding of the epidemiology, etiology, and histopathology of AKI in LMICs.

DOI: 10.1016/j.ekir.2017.04.009
PMCID: PMC5637391
PMID: 29034358

23: Chahal A, Rajalakshmi P, Khan SA, Rastogi S, Srivastava DN, Gamanagatti S. CT-guided percutaneous radiofrequency ablation of osteoid osteoma: Our experience in 87 patients. Indian J Radiol Imaging. 2017 Apr-Jun;27(2):207-215. doi: 10.4103/ijri.IJRI_260_16. PubMed PMID: 28744082; PubMed Central PMCID: PMC5510319.

PURPOSE: To evaluate the technical and clinical success of radiofrequency ablation of osteoid osteoma and analyze the factors responsible for clinical success. We also tried to investigate the role of follow-up computed tomography (CT) imaging.
MATERIALS AND METHODS: This is a prospective study approved by the institute's ethics committee involving 87 patients with appendicular osteoid osteoma. CT-guided radio frequency ablation was performed using a bipolar ablation system. Patients were followed up over 15.4 (4-24) months for pain, and clinical success/failure was determined using established criteria. Patients with clinical failure were taken for repeat ablation. Follow-up CT was obtained at 6 months and

correlated with clinical success. Procedural scans were later reviewed for technical success in a blinded manner and correlated with clinical success along with other imaging and patient characteristics.
RESULTS: Mean pre-procedure visual analog scale (VAS) score was 7.0 ± 0.8. Primary success rate after single session was 86.2%(75/87 patients), and overall success rate after one/two sessions was 96.6%(84/87). No major complications were noted. Technical success rate was 89.7%(78/87). All 9 patients who had a suboptimal needle positioning had recurrence where as three patients had recurrence despite technical success. None of the imaging characteristics or history of prior intervention was significantly associated with clinical success. Follow-up CT showed advanced bone healing in 48 lesions, and was confined to the treatment success group. Alternately, minimal/absent bone healing was seen in all (12) patients of primary treatment failure and 27 patients with treatment success.
CONCLUSIONS: CT-guided percutaneous radio frequency ablation is a safe and highly effective treatment for osteoid osteomas even in recurrent and residual cases. Technical success is the most important parameter affecting the outcome. Post radio frequency ablation CT findings have a good positive but a poor negative predictive value in prognostication.

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PMCID: PMC5510319
PMID: 28744082

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

24: Chaudhry R, Saigal K, Bahadur T, Kant K, Chourasia B, Gupta N. Varied presentations of leptospirosis: experience from a tertiary care hospital in north India. Trop Doct. 2017 Apr;47(2):128-132. doi: 10.1177/0049475516687431. Epub 2017 Jan 16. PubMed PMID: 28092222.

Leptospirosis has been recognised as an emerging global public health problem. The aim of our study was to explore the epidemiological and clinical pattern of disease occurrence in suspected cases and to search for any existing co-infections. Ours was a retrospective study in patients with acute febrile illness in north India over a period of three years (April 2011 to June 2014). Serological diagnosis of leptospirosis was made using the PanBio IgM ELISA kit. Using modified Faine's criteria, presumptive and possible diagnosis was made in 57% and 34% cases, respectively. Most of the affected population was resident in north and central India. Nineteen patients showed co-infection with other common pathogens prevailing locally. There is a need to increase awareness and understand the local sero-epidemiological pattern of leptospirosis so that timely preventive and curative action may be taken by healthcare authorities.

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PMID: 28092222 [Indexed for MEDLINE]

25: Chauhan V, Galwankar S, Kumar R, Raina SK, Aggarwal P, Agrawal N, Krishnan SV, Bhoi S, Kalra OP, Soans ST, Aggarwal V, Kubendra M, Bijayraj R, Datta S, Srivastava RP. The 2017 Academic College of Emergency Experts and Academy of Family Physicians of India position statement on preventing violence against health-care workers and vandalization of health-care facilities in India. Int J Crit Illn Inj Sci. 2017 Apr-Jun;7(2):79-83. doi: 10.4103/IJCIIS.IJCIIS_28_17. PubMed PMID: 28660160; PubMed Central PMCID: PMC5479080.

There have been multiple incidents where doctors have been assaulted by patient relatives and hospital facilities have been vandalized. This has led to mass agitations by Physicians across India. Violence and vandalism against health-care workers (HCWs) is one of the biggest public health and patient care challenge in India. The sheer intensity of emotional hijack and the stress levels in both practicing HCWs and patient relative's needs immediate and detail attention. The suffering of HCWs who are hurt, the damage to hospital facilities and the reactionary agitation which affects patients who need care are all together doing

everything to damage the delivery of health care and relationship between a doctor and a patient. This is detrimental to India where illnesses and Injuries continue to be the biggest challenge to its growth curve. The expert group set by The Academic College of Emergency Experts and The Academy of Family Physicians of India makes an effort to study this Public Health and Patient Care Challenge and provide recommendations to solve it.

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PMCID: PMC5479080
PMID: 28660160

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

26: Chawla L, Vatsa R, Roy KK, Kumar S. Uterine Adenofibroma: An Unsual Cause of Nonpuerperal Uterine Inversion in Postmenopausal Female. J Midlife Health. 2017 Apr-Jun;8(2):95-97. doi: 10.4103/jmh.JMH_27_17. PubMed PMID: 28706412; PubMed Central PMCID: PMC5496288.

Uterine adenofibroma is an extremely rare benign mixed mullerian tumor, most often presenting as vaginal mass with pain and abnormal uterine bleeding in postmenopausal females. Nonpuerperal uterine inversion is also an uncommon entity. We present a rare case of nonpuerperal uterine inversion due to a uterine adenofibroma. A 56-year-old postmenopausal female presented to us with bleeding and discharge per vaginum. Examination showed a polyp. Due to associated comorbidities, polypectomy was chosen as management modality failing which laparotomy was done, and the uterus was found to be inverted through the cervix, hysterectomy was done. Histopathological evaluation showed uterine adenofibroma. This is the first case of inversion reported due to uterine adenofibroma.

DOI: 10.4103/jmh.JMH_27_17
PMCID: PMC5496288
PMID: 28706412

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

27: Chawla R, Bypareddy R, Vekaria L, Venkatesh P, Ananthashayana VH. Fundus findings in a case of Joubert syndrome. Indian J Ophthalmol. 2017 Apr;65(4):329-330. doi: 10.4103/ijo.IJO_441_16. PubMed PMID: 28513504; PubMed Central PMCID: PMC5452592.

28: Choudhury M, Gupta A, Hote MP, Kapoor PM, Khanna S, Kalaivani MV, Kiran U. Does sleep quality affects the immediate clinical outcome in patients undergoing coronary artery bypass grafting: A clinico-biochemical correlation. Ann Card Anaesth. 2017 Apr-Jun;20(2):193-199. doi: 10.4103/aca.ACA_30_17. PubMed PMID: 28393780; PubMed Central PMCID: PMC5408525.

OBJECTIVE: Poor sleep quality is emerging as high prevalence among the patients suffering from cardiometabolic disturbances. The vascular polypeptide endothelin 1 (ET-1) is involved in many of the health disorders. However, its potential involvement in patients having poor sleep quality along with cardiovascular problem is limited. The present study was formulated to conduct a prospective analysis of the relationship between ET-1 and in hospital outcome in sleep disorder patients undergoing routine coronary artery bypass grafting (CABG).
METHODS: A total of 156 patients were enrolled and divided into two groups based on the Pittsburg Sleep Quality Index (PSQI) of ≤5 (Group I, n = 101) or >5 (Group II, n = 55). Blood sample was collected before anesthesia induction (ET-1a) and at 48 h (ET-1b) to analyze the plasma ET-1 and blood sugar level. The patients were monitored for any intraoperative adverse events and postoperative complications during their hospital stay.
RESULTS: Both groups were comparable in relation to age, sex, incidence of smoking and alcohol consumption. The distribution of comorbid conditions was also similar in both groups. The ET-1 level was higher in Group II than Group I before

anesthesia induction as well as 48 h postoperatively (4.5 ± 1.75 vs. 10.61 ± 9.3, P = 0.001; 2.08 ± 1.3 vs. 8.3 ± 9.86, P = 0.0001, respectively). The Group II patients had a longer duration of mechanical ventilation (14.6 ± 12.05 vs. 10.1 ± 8.19, P = 0.001), Intensive Care Unit stay (2.08 ± 0.95 vs. 2.7 ± 1.45, P = 0016) and hospital stay (5.98 ± 1.73 vs. 7.8 ± 3.66, P = 0.0001, respectively). The high number of patients from Group II required inotrope and intra-aortic balloon pump support while compared with Group I (P ≤ 0.05 in each). The overall postoperative complication rate was significantly higher among patients with PSQI of >5 (Group II) except the rate of infection and neurological complications which was similar among both group of patients. The postoperative in hospital mortality was nil in Group I and 3.6% in Group II (P = 0.05). There was a strong relationship between PSQI and ET-1 at both the time points.
CONCLUSION: Poor sleep quality associated with a higher incidence of adverse perioperative events in patients undergoing elective CABG. There exists a potential link between poor sleep quality and ET-1 in these groups of patients.

DOI: 10.4103/aca.ACA_30_17
PMCID: PMC5408525
PMID: 28393780

29: Chowdhury UK, Kapoor PM, Rizvi A, Malik V, Seth S, Narang R, Kalaivani M, Singh SP, Selvam S. Serial semi-invasive hemodynamic assessment following pericardiectomy for chronic constrictive pericarditis. Ann Card Anaesth. 2017 Apr-Jun;20(2):169-177. doi: 10.4103/aca.ACA_98_16. PubMed PMID: 28393776; PubMed Central PMCID: PMC5408521.

OBJECTIVES: This study was designed to prospectively investigate the effects of pericardiectomy via median sternotomy on intra- and postoperative hemodynamics by a new semi-invasive device (Flotrac/VigileoTM monitor) using arterial pressure waveform analysis.
PATIENTS AND METHODS: Thirty consecutive patients aged 15 to 55 years (mean+SD, 31.73 + 13.53 years), who had undergone total pericardiectomy via median sternotomy underwent serial hemodynamic evaluation. FlotracTM Sensor - derived stroke volume, stroke volume variation, systemic vascular resistance index (SVRI), cardiac index and right atrial pressure were measured just before and after pericardiectomy, at 12 hours, 24 hours, 48 hours, 72 hours and at discharge postoperatively.
RESULTS: Majority of patients (73.33%) exhibited statistically significant reduction of right atrial pressure and SVRI along with improvement in cardiac index and oxygen delivery in the immediate and late postoperative period. However, the stroke volume and stroke volume variation did not increase proportionately on completion of surgery. Patients with low cardiac output syndrome exhibited persistently high central venous pressure with reduced cardiac index and echocardiographically abnormal diastolic filling characteristics.
CONCLUSIONS: We conclude that there is early normalization of hemodynamics following pericardiectomy via median sternotomy and the adequacy of pericardiectomy can be accurately assessed by the new semi-invasive arterial pressure waveform analysis device. Stroke volume variation is a non-predictor of fluid requirement during and after pericardiectomy.

DOI: 10.4103/aca.ACA_98_16
PMCID: PMC5408521
PMID: 28393776

30: Dalal JJ, Mishra S. Modulation of myocardial energetics: An important category of agents in the multimodal treatment of coronary artery disease and heart failure. Indian Heart J. 2017 May - Jun;69(3):393-401. doi: 10.1016/j.ihj.2017.04.001. Epub 2017 Apr 29. Review. PubMed PMID: 28648439; PubMed Central PMCID: PMC5485408.

The combined and relative contribution of glucose and fatty acid oxidation generates myocardial energy, which regulates the cardiac function and efficiency. Any dysregulation in this metabolic homeostasis can adversely affect the function

of heart and contribute to cardiac conditions such as angina and heart failure. Metabolic agents ameliorate this internal metabolic anomaly, by shifting the energy production pathway from free fatty acids to glucose, resulting in a better performance of the heart. Metabolic therapy is relatively a new modality, which functions through optimization of cardiac substrate metabolism. Among the metabolic therapies, trimetazidine and ranolazine are the agents presently available in India. In the present review, we would like to present the metabolic perspective of pathophysiology of coronary artery disease and heart failure, and metabolic therapy by using trimetazidine and ranolazine.

DOI: 10.1016/j.ihj.2017.04.001
PMCID: PMC5485408 [Available on 2018-05-01]
PMID: 28648439

31: Das S, Datt S, Roy P, Saha R, Xess I. Sporadic occurrence of cryptococcal meningitis in HIV-seronegative patients: Uncommon etiology? Indian J Pathol Microbiol. 2017 Apr-Jun;60(2):236-238. doi: 10.4103/IJPM.IJPM_599_16. PubMed PMID: 28631642.

Cryptococcosis in HIV-seronegative patients is rarely reported from India. This prospective study was conducted to look for cryptococcal meningitis in HIV-seronegative individuals and compare their laboratory features to cryptococcal meningitis in HIV-seropositive patients. Cerebrospinal fluid was collected from 153 suspected cases of meningitis and subjected to India ink preparation, antigen detection, and culture. Nineteen samples tested positive for Cryptococcus neoformans infection. Seventeen and two patients were HIV reactive and nonreactive, respectively. In vitro susceptibility of C. neoformans isolates to fluconazole and amphotericin B was performed using standard broth microdilution method and E-test. Eighteen strains were susceptible to amphotericin B, while fluconazole was reported susceptible in 15 strains. Hence, index of suspicion of C. neoformans infection as possible cause of meningitis must be maintained even in HIV-negative patients. Use of amphotericin B for treating C. neoformans meningitis should be restricted to prevent any increase in resistance.

DOI: 10.4103/IJPM.IJPM_599_16
PMID: 28631642

32: Deganwa ML, Sharma R, Khare A, Sharma D. Effect of Premedication with Oral Clonidine on Hemodynamic Response during Electroconvulsive Therapy. Anesth Essays Res. 2017 Apr-Jun;11(2):354-358. doi: 10.4103/0259-1162.186599. PubMed PMID: 28663621; PubMed Central PMCID: PMC5490142.

BACKGROUND: Electroconvulsive therapy (ECT) is the most effective treatment available for the acute treatment of depression in patients who do not respond to medications. It is generally used as a second line treatment for many psychological disorders, mainly major depression and schizophrenia where medication is not effective. ECT is often associated with some complications such as hypertension, tachycardia arrhythmia and even myocardial infarction. Various methods have been used for prevention or control of these cardiovascular side effects.
AIM: The aim of this study was evaluating the effect of oral clonidine (0.3 mg) with control group to know the effect of oral clonidine on hemodynamic response during ECT.
METHODS AND MATERIAL: This prospective randomized crossover clinical trial was performed on 25 patients aged 20-50 years, weight 50-70 kg with ASA I and II who were candidates for ECT. Prior to ECT, each patient received oral doses of clonidine (0.3 mg) or a placebo 90 minutes before ECT. Baseline Heart rate, systolic, diastolic and mean arterial pressures were noted just before securing the intravenous cannula. The same parameters were noted after induction,

immediately after seizure cessation following delivery of the electric shock and at 1 minute interval for 10 minutes.
STATISTICAL ANALYSIS: Data was analyzed by ANOVA test (analysis of variance). P < 0.05 was considered statistically significant.
RESULTS: Attenuation of maximum rise in the heart rate and mean arterial pressure by clonidine (0.3 mg) was evident and statistically significant when compared with control group.
CONCLUSION: Oral clonidine (0.3 mg) decreases the acute hypertensive response after electroconvulsive therapy; however, this antihypertensive effect was achieved by decreasing the blood pressure before the electrical stimulus.

DOI: 10.4103/0259-1162.186599
PMCID: PMC5490142
PMID: 28663621

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

33: Deshpande S, Singh N. Influence of Cubosome Surface Architecture on Its Cellular Uptake Mechanism. Langmuir. 2017 Apr 11;33(14):3509-3516. doi: 10.1021/acs.langmuir.6b04423. Epub 2017 Mar 29. PubMed PMID: 28325047.

Interaction of nanoparticles with biological systems is a key factor influencing their efficacy as a drug delivery vehicle. The inconsistency in defining the optimal design parameters across different nanoparticle types suggests that information gained from one model system need not apply to other systems. Therefore, selection of a versatile model system is critical for such studies. Cubosomes are one of the potential drug delivery vehicles due to their biocompatibility, stability, ability to carry hydrophobic, hydrophilic, and amphiphilic drugs, and ease of surface modification. Here we report the importance of surface architecture of cubosomes by comparing their cellular uptake mechanism with poly-ε-lysine (PεL)-coated cubosomes. Uncoated cubosomes entered cells by an energy-independent, cholesterol-dependent mechanism, whereas PεL-coated cubosomes relied on energy-dependent mechanisms to enter the endosomes. As endosomal entrapment was evaded by uncoated cubosomes, they can be preferably used for cytosolic delivery of therapeutic agents.

DOI: 10.1021/acs.langmuir.6b04423
PMID: 28325047

34: Dhawan B, Makharia GK, Juyal D, Sebastian S, Bhatia R, Khanna N. Chlamydia trachomatis proctitis masquerading as carcinoma rectum: First case report from India. Indian J Pathol Microbiol. 2017 Apr-Jun;60(2):259-261. doi: 10.4103/IJPM.IJPM_114_16. PubMed PMID: 28631649.

While proctitis is caused both by infectious and noninfectious causes, infectious causes are acquired typically sexually. Chlamydia trachomatis, which is the most frequent bacterial pathogen causing sexually transmitted infections worldwide, is one of the causative agents of proctitis. We report a case history of a bisexual male who presented to us with rectal bleeding. The colonoscopy showed a nodular ulcerated lesion in the rectum suggestive of rectal malignancy, but biopsies from rectal mass did not reveal malignancy. A rectal biopsy was positive for C. trachomatis by polymerase chain reaction assay, and a diagnosis of C. trachomatis proctitis was made. Considering the invasive anorectal disease and patient's sexual history, he was treated with prolonged doxycycline therapy as per Centres for Disease Control and Prevention's treatment recommendation for lymphogranuloma venereum. A high index of clinical suspicion along with appropriate microbiological testing can clinch the diagnosis of C. trachomatis infection.

DOI: 10.4103/IJPM.IJPM_114_16
PMID: 28631649

35: Dhawan I, Malik V, Sharma KP, Makhija N, Pangasa N. Transthoracic echocardiography versus transesophageal echocardiography for rupture sinus of

Valsalva aneurysm. Ann Card Anaesth. 2017 Apr-Jun;20(2):245-246. doi: 10.4103/aca.ACA_41_17. PubMed PMID: 28393788; PubMed Central PMCID: PMC5408533.

We report a rare case of sinus of Valsalva aneurysm of both right and left coronary sinus (LCS), with perforation of the LCS opening into the left ventricle. The LCS aneurysm with its perforation was undiagnosed on transthoracic echocardiography emphasizing the role of transesophageal echocardiography in delineating the anatomy.

DOI: 10.4103/aca.ACA_41_17
PMCID: PMC5408533
PMID: 28393788

36: Dhawan V, Kapoor K, Singh B, Kochhar S, Sehgal A, Dada R. Split Notochord Syndrome: A Rare Variant. J Pediatr Neurosci. 2017 Apr-Jun;12(2):177-179. doi: 10.4103/jpn.JPN_120_16. PubMed PMID: 28904581; PubMed Central PMCID: PMC5588648.

Split notochord syndrome represents an extremely rare and pleomorphic form of spinal dysraphism characterized by a persistent communication between the endoderm and the ectoderm, resulting in splitting or deviation of the notochord. It manifests as a cleft in the dorsal midline of the body through which intestinal loops are exteriorized and even myelomeningoceles or teratomas may occur at the site. A rare variant was diagnosed on autopsy of a 23(+4)-week-old fetus showing a similar dorsal enteric fistula and midline protruding intestinal loops in thoracolumbar region. The anteroposterior radiograph showed a complete midline cleft in the vertebral bodies from T11 to L5 region, and a split in the spinal cord was further confirmed by ultrasonography. Myelomeningocele was erroneously reported on antenatal ultrasound. Thus, awareness of this rare anomaly is necessary to thoroughly evaluate the cases of such spinal defects or suspected myelomeningoceles.

DOI: 10.4103/jpn.JPN_120_16
PMCID: PMC5588648
PMID: 28904581

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

37: Dhiman R, Sharma M, Sethi A, Sharma S, Kumar A, Saxena R. A rare case of Bruns syndrome with bilateral superior oblique palsy and dorsal midbrain syndrome. J AAPOS. 2017 Apr;21(2):167-170. doi: 10.1016/j.jaapos.2016.11.024. Epub 2017 Feb 16. PubMed PMID: 28213087.

We report a case of an 11-year-old boy referred for evaluation of esotropia associated with a 4-year history of intermittent headaches and vomiting triggered by sudden movements, such as sneezing and coughing. Magnetic resonance imaging (MRI) performed 3 years previously was reported to be normal. A thorough clinical examination revealed the clinical features of Dorsal midbrain syndrome with Bruns syndrome and bilateral superior oblique palsy. Advanced MRI sequences revealed a freely mobile intraventricular cysticercus causing obstructive panhydrocephalus.

DOI: 10.1016/j.jaapos.2016.11.024
PMID: 28213087

38: Ebrahiem AA, Manas RK, Vinagre G. Distally Based Sural Artery Peroneus Flap (DBSPF) for Foot and Ankle Reconstruction. Plast Reconstr Surg Glob Open. 2017 Apr 18;5(4):e1276. doi: 10.1097/GOX.0000000000001276. eCollection 2017 Apr. PubMed PMID: 28507850; PubMed Central PMCID: PMC5426869.

BACKGROUND: Reconstruction of soft-tissue defects in lower third of leg, ankle, and foot has been a challenge and reconstructive surgeons have been trying to

innovate different flaps. To solve this issue, we propose a distally based sural artery peroneus flap (DBSPF) in which we include superficial portion of the peroneus brevis muscle and its blood supply with the peroneal artery distally. The aim of this study was to evaluate the functional outcome and its usefulness over conventional distal sural artery flap or other local options available.
METHODS: This is a case series of 20 patients that include a DBSPF that was done for defects around ankle, distal leg, and foot caused by trauma or tumor ablation within the period of June 2013 to March 2015 in Kasralainy Hospital, Cairo. All cases were evaluated according to flap vascularity, distal reach of flap, aesthetic outcome, and donor-site morbidity.
RESULTS: All flaps survived. One flap developed venous congestion that subsided spontaneously with limb elevation. The flap dimension ranged from 42 cm to 442 cm(2), and it reached the midfoot easily. The pivot point was kept as low as 2-6 cm from lateral malleolus according to location of perforators. The ankle stability was maintained, and the desired aesthetic outcome was achieved.
CONCLUSIONS: The DBSPF is an addition to the armamentarium in plastic surgery for defects around ankle, distal leg, and foot. It is an easy and swift procedure as compared with complex microsurgical reconstruction.

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PMCID: PMC5426869
PMID: 28507850

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Importance: Cancer is the second leading cause of death worldwide. Current estimates on the burden of cancer are needed for cancer control planning.
Objective: To estimate mortality, incidence, years lived with disability (YLDs), years of life lost (YLLs), and disability-adjusted life-years (DALYs) for 32 cancers in 195 countries and territories from 1990 to 2015.
Evidence Review: Cancer mortality was estimated using vital registration system data, cancer registry incidence data (transformed to mortality estimates using separately estimated mortality to incidence [MI] ratios), and verbal autopsy

data. Cancer incidence was calculated by dividing mortality estimates through the modeled MI ratios. To calculate cancer prevalence, MI ratios were used to model survival. To calculate YLDs, prevalence estimates were multiplied by disability weights. The YLLs were estimated by multiplying age-specific cancer deaths by the reference life expectancy. DALYs were estimated as the sum of YLDs and YLLs. A sociodemographic index (SDI) was created for each location based on income per capita, educational attainment, and fertility. Countries were categorized by SDI quintiles to summarize results.
Findings: In 2015, there were 17.5 million cancer cases worldwide and 8.7 million deaths. Between 2005 and 2015, cancer cases increased by 33%, with population aging contributing 16%, population growth 13%, and changes in age-specific rates contributing 4%. For men, the most common cancer globally was prostate cancer (1.6 million cases). Tracheal, bronchus, and lung cancer was the leading cause of cancer deaths and DALYs in men (1.2 million deaths and 25.9 million DALYs). For women, the most common cancer was breast cancer (2.4 million cases). Breast cancer was also the leading cause of cancer deaths and DALYs for women (523 000 deaths and 15.1 million DALYs). Overall, cancer caused 208.3 million DALYs worldwide in 2015 for both sexes combined. Between 2005 and 2015, age-standardized incidence rates for all cancers combined increased in 174 of 195 countries or territories. Age-standardized death rates (ASDRs) for all cancers combined decreased within that timeframe in 140 of 195 countries or territories. Countries with an increase in the ASDR due to all cancers were largely located on the African continent. Of all cancers, deaths between 2005 and 2015 decreased significantly for Hodgkin lymphoma (-6.1% [95% uncertainty interval (UI), -10.6% to -1.3%]). The number of deaths also decreased for esophageal cancer, stomach cancer, and chronic myeloid leukemia, although these results were not statistically significant.
Conclusion and Relevance: As part of the epidemiological transition, cancer incidence is expected to increase in the future, further straining limited health care resources. Appropriate allocation of resources for cancer prevention, early diagnosis, and curative and palliative care requires detailed knowledge of the local burden of cancer. The GBD 2015 study results demonstrate that progress is possible in the war against cancer. However, the major findings also highlight an unmet need for cancer prevention efforts, including tobacco control, vaccination, and the promotion of physical activity and a healthy diet.

DOI: 10.1001/jamaoncol.2016.5688
PMID: 27918777 [Indexed for MEDLINE]

40: Garg B, Batra S, Dixit V. India contribution to Spine Surgery: 15 most influential articles. J Clin Orthop Trauma. 2017 Apr-Jun;8(2):181-184. doi: 10.1016/j.jcot.2016.12.012. Epub 2017 Jan 8. PubMed PMID: 28720999; PubMed Central PMCID: PMC5498759.

OBJECTIVE: To determine the number of articles published by Indian authors related to spine surgery and to enumerate the 15 most influential articles from India published in the field of spine surgery in national & international journals based on the citations they have received both in pubmed and google scholar.
MATERIAL AND METHODS: A retrospective study using Pubmed database was performed for the years between 1960 and 2015, for the articles published from India in the field of spine surgery in various national and international journals. A total of 3181 citations were received for top 15 most influential articles in the field of spine surgery from India.
RESULTS: A total of 885 papers from India were identified which were published by Indian authors related to spine surgery between year 1960 to 2015. The largest numbers of papers were published in International journals such as Spine (82) and in European Spine Journal (47).
CONCLUSION: There are an increasing number of papers from India in the field of spine surgery literature. Most of the highly cited papers were related to tuberculosis. We expect further contributions from our country to the medical literature in the future.

DOI: 10.1016/j.jcot.2016.12.012
PMCID: PMC5498759 [Available on 2018-04-01]
PMID: 28720999

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BACKGROUND: Tran foraminal lumbar interbody fusion (TLIF) is a well accepted and standard technique of achieving spinal fusion using pedicle screws, cage and bone graft. We are presenting here a case of L4-L5 lumbar canal stenosis managed with TLIF that presented with sigmoid colon perforation due to bone graft migration 4 days after surgery.
CASE REPORT: A 35 years old female underwent open TLIF (from right side) with decompression for L4-L5 lumbar canal stenosis. On 4th post op day she started having abdominal pain and distension. After radiograph reveled gas under diaphragm emergency laparotomy was done and 1 by 1 cm sigmoid colon perforation seen near recto-sigmoid junction. Bony spicules with sharp edges were seen embedded inside the perforation.
DISCUSSION: The purpose of this case report is to present a rare complication and to raise awareness and high index of suspicion among spine surgeons for prevention, early detection and treatment.

DOI: 10.1016/j.jcot.2016.12.008
PMCID: PMC5498768 [Available on 2018-04-01]
PMID: 28720994

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Osteoporosis is a major public health problem. Last decade has seen rise in osteoporotic vertebral fractures. Pragmatic management of osteoporotic VCF is challenging to the surgeons. In clinical settings, the situation becomes more complex when it comes to managing painful osteoporotic vertebral compression fractures (VCFs) due to various co-morbid factors that may limit aggressive interventions. Patients with Osteoporotic vertebral fractures are often characterized by general/relative immobility and physical frailty. Osteoporotic VCF not only affects the quality of life (e.g. pain) but also decreases the lifespan of the individual. The present review critically evaluates the currently prevailing non-surgical management modalities (conservative) offered in acute symptomatic osteoporotic VCFs that occur either within (0-5 days) of any incident event or present with the onset of symptoms such as pain.

DOI: 10.1016/j.jcot.2017.02.001
PMCID: PMC5498748 [Available on 2018-04-01]
PMID: 28720988

43: Garg H, Priyadarshini P, Aggarwal S, Agarwal S, Chaudhary R. Comparative study of outcomes following laparoscopic Roux-en-Y gastric bypass and sleeve gastrectomy in morbidly obese patients: A case control study. World J Gastrointest Endosc. 2017 Apr 16;9(4):162-170. doi: 10.4253/wjge.v9.i4.162. PubMed PMID: 28465782; PubMed Central PMCID: PMC5394722.

AIM: To compare the impact of laparoscopic Roux-en-Y gastric bypass (LRYGB) and laparoscopic sleeve gastrectomy (LSG) on weight loss and obesity related comorbidities over two year follow-up via case control study design.
METHODS: Forty patients undergoing LRYGB, who completed their two year follow-up were matched with 40 patients undergoing LSG for age, gender, body mass index and presence of type 2 diabetes mellitus (T2DM). Data of these patients was retrospectively reviewed to compare the outcome in terms of weight loss and

improvement in comorbidities, i.e., T2DM, hypertension (HTN), obstructive sleep apnea syndrome (OSAS), hypothyroidism and gastroesophageal reflux disease (GERD). RESULTS: Percentage excess weight loss (EWL%) was similar in LRYGB and LSG groups at one year follow-up (70.5% vs 66.5%, P = 0.36) while it was significantly greater for LRYGB group after two years as compared to LSG group (76.5% vs 67.9%, P = 0.04). The complication rate after LRYGB and LSG was similar (10% vs 7.5%, P = 0.99). The median duration of T2DM and mean number of oral hypoglycemic agents were higher in LRYGB group than LSG group (7 years vs 5 years and 2.2 vs 1.8 respectively, P < 0.05). Both LRYGB and LSG had significant but similar improvement in T2DM, HTN, OSAS and hypothyroidism. However, GERD resolved in all patients undergoing LRYGB while it resolved in only 50% cases with LSG. Eight point three percent patients developed new-onset GERD after LSG.
CONCLUSION: LRYGB has better outcomes in terms of weight loss two years after surgery as compared to LSG. The impact of LRYGB and LSG on T2DM, HTN, OSAS and hypothyroidism is similar. However, LRYGB has significant resolution of GERD as compared to LSG.

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PMCID: PMC5394722
PMID: 28465782

Conflict of interest statement: Conflict-of-interest statement: All authors confirm no conflict of interest.

44: Garg K, Sharma R, Gupta D, Sinha S, Satyarthee GD, Agarwal D, Kale SS, Sharma BS, Mahapatra AK. Outcome Predictors in Pediatric Head Trauma: A Study of Clinicoradiological Factors. J Pediatr Neurosci. 2017 Apr-Jun;12(2):149-153. doi: 10.4103/jpn.JPN_179_16. PubMed PMID: 28904572; PubMed Central PMCID: PMC5588639.

INTRODUCTION: Traumatic injuries are the leading cause of death and a major cause of disability among children. About 70%-80% of the accidental deaths in pediatric age group result directly from central nervous system lesions.
METHODS: The purpose of our study was to study all the patients of ≤18 years of age with head or spinal injury admitted in neurointensive care unit at our center, an apex trauma center in a developing country, between June 2009 and September 2011. We retrospectively analyzed various factors including type of injury, mode of injury, admission Glasgow coma score (in case of head injury), and mortality rate.
OBSERVATIONS: The study population consisted of 264 injured children. Mean age was 8.3 ± 5.6 years (range 5 months to 18 years). Forty percent of patients were within 1-5-year age group. Head injury accounted for 89% of cases and 11% of cases were spinal injury patients. Low-velocity trauma was the most common mode of injury, accounting for 74% of the cases. The percentage of patients with mild, moderate, and severe head injury were 38%, 15%, and 47%, respectively, in the head injury group. Mortality in head injury patients was 18% and in spinal injury patients was 9%. Operative intervention was done in 56% of patients. Predictors of mortality included severe head injury, hospital stay <7 days, pneumothorax, the presence of hypotension, and deranged coagulation parameters.
CONCLUSIONS: Head injury is much more common than spinal injury in pediatric patients and fall from height being the most common mode of injury. Severe head injury, hospital stay <7 days, pneumothorax, presence of hypotension, and deranged coagulation parameters are predictors of poor outcome.

DOI: 10.4103/jpn.JPN_179_16
PMCID: PMC5588639
PMID: 28904572

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

45: Garg K, Tandon V, Mahapatra AK. A unique case of split cord malformation type 1 with three different types of bony spurs. Asian J Neurosurg. 2017 Apr-Jun;12(2):305-308. doi: 10.4103/1793-5482.149981. PubMed PMID: 28484560; PubMed Central PMCID: PMC5409396.

Split cord malformation (SCM) is a rare congenital anomaly. The presence of bony spurs seen in type 1 SCM are usually partial and unequivocally are found attached to the dorsal surface of the vertebral body. We present here a unique case of SCM where the bony spur was found attached to the ventral aspect of the posterior arch and there were three different types of spurs (Type 1A, 1B and 1C) in the same patient.

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PMCID: PMC5409396
PMID: 28484560

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

46: Garg K, Borkar SA, Kale SS, Sharma BS. Spinal arachnoid cysts - our experience and review of literature. Br J Neurosurg. 2017 Apr;31(2):172-178. doi: 10.1080/02688697.2016.1229747. Epub 2016 Sep 22. PubMed PMID: 28287894.

OBJECTIVE: Arachnoid cysts are discrete pockets of CSF or CSF-like fluid found adjacent to normal CSF spaces, either spinal or cranial. Spinal arachnoid cysts (SAC) are most commonly extradural, however intradural or perineural are also described.
METHODS: All patients admitted to our center and surgically treated with a diagnosis of SAC, were included in the study. The results were analyzed in terms of the clinical symptoms, location of cyst, surgical procedure performed and outcome following surgery.
RESULTS: Eleven patients were operated for SAC during the study period and the mean age at surgery was 32.9±20.8 years. Male to female ratio was 2.7:1 in our series. Common presenting complaints were lower limb weakness and pain. The median duration of symptoms before surgery was nine months (mean 21±28 months). Ten patients had extradural cysts while one had intradural cyst. Extradural cysts were managed by laminoplasty and excision of the cyst, except for one patient in whom the SAC extended from C3 to L2 and marsupialization of the cyst was done. The only patient with intradural cyst underwent cyst fenestration. One patient had two communications and both were closed. In our series, at the time of last follow up two patients became completely free of symptoms, while other five reported substantial improvement in their symptoms. Operative complications were noted in two patients.
CONCLUSION: Formation and expansion of SAC is not completely understood. Myelography, CT myelography and cinematic MRI can demonstrate the location of the communication site between the spinal subarachnoid space and the cyst cavity. The usual management of SAC is excision of the cyst with closure of the dural defect in extradural cysts, while in case of intradural cysts, especially the ones located anterior to the cord, fenestration of the cyst is usually performed.

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PMID: 28287894 [Indexed for MEDLINE]

47: Garg P, Badhwar S, Jaryal AK, Kachhawa G, Deepak KK, Kriplani A. The temporal trend of vascular function in women with gestational diabetes. Vasc Med. 2017 Apr;22(2):96-102. doi: 10.1177/1358863X16678479. Epub 2017 Jan 28. PubMed PMID: 28132595.

The objective of the study was to assess the temporal changes in vascular function during pregnancy in healthy women and in those with gestational diabetes mellitus (GDM). Assessment of vascular function was done at three time points, 11-13(+6) weeks(+days), 20-22(+6) weeks(+days) and 30-32(+6) weeks(+days), by flow-mediated dilatation (FMD), augmentation index (AIx) and carotid-radial pulse wave velocity (crPWV) in women (n=100) with singleton pregnancies. Out of the 100 women, 20 developed GDM, who were compared with 20 healthy, age-matched pregnant women in a nested case-control design. Women with GDM had lower FMD% in the third compared to the first trimester (6.77 (4.36-9.96) vs 9.76 (6.66-16.61)%; p = 0.026); however, FMD% was similar on inter-group comparison

between GDM and healthy pregnancies. AIx was significantly higher in GDM than healthy pregnancies at both first (15.35±10.57 vs 6.45±9.81%; p<0.05) and second trimesters (15.00±8.44 vs 2.50±9.01%; p<0.05). A higher AIx in early pregnancy differentiates women with GDM from those with healthy pregnancies.

DOI: 10.1177/1358863X16678479
PMID: 28132595 [Indexed for MEDLINE]

48: Gautam D, Malhotra R. Bilateral simultaneous total hip replacement in Achondroplasia. J Clin Orthop Trauma. 2017 Aug;8(Suppl 1):S76-S79. doi: 10.1016/j.jcot.2017.02.008. Epub 2017 Apr 20. PubMed PMID: 28878547; PubMed Central PMCID: PMC5574849.

We present a case of bilateral simultaneous total hip replacement in a very short statured (height 112 cm) 45 years old male patient with Achondroplasia and disabling osteoarthritis of both the hips. We describe the difficulties encountered and provide a methodical approach for such cases.

DOI: 10.1016/j.jcot.2017.02.008
PMCID: PMC5574849 [Available on 2018-08-01]
PMID: 28878547

49: Gielen J, Bhatnagar S, Chaturvedi SK. Prevalence and Nature of Spiritual Distress Among Palliative Care Patients in India. J Relig Health. 2017 Apr;56(2):530-544. doi: 10.1007/s10943-016-0252-5. PubMed PMID: 27154352.

In palliative care research, little attention has been paid to the empirical study of spirituality in patients in non-Western countries. This study describes the prevalence and nature of spiritual distress among Indian palliative care patients. Data from 300 adult cancer patients who had completed a questionnaire with 36 spirituality items were analyzed. Spirituality was shaped by the Indian religious and economic context. A latent class analysis resulted in three clusters: trustful patients (46.4 %), spiritually distressed patients (17.4 %), and patients clinging to divine support (36.2 %). After regression, the clusters were found to be associated with pain scores ($p < .001$), gender ($p = .034$), and educational level ($p < .006$). More than half of the patients would benefit from spiritual counselling. More research and education on spirituality in Indian palliative care is urgently required.

DOI: 10.1007/s10943-016-0252-5
PMID: 27154352 [Indexed for MEDLINE]

50: Goyal M, Shukla P, Gupta D, Bisht S, Verma NS, Tiwari S, Bhatt ML. Cardiovascular sequel of neck irradiation in head and neck cancer patients. Int J Radiat Biol. 2017 Jul;93(7):711-716. doi: 10.1080/09553002.2017.1303217. Epub 2017 Apr 28. PubMed PMID: 28376642.

PURPOSE: The baroreflex is an important afferent mechanism controlling autonomic functions. As afferent nerves course through the neck, they are susceptible to damage by neck irradiation in head and neck cancer patients. With increased survival of head and neck cancer patients because of improved therapy, the cardiovascular morbidity and mortality in them have become apparent and this is of clinical concern. There are few case reports of baroreflex failure as a chronic sequel to neck irradiation.
OBJECTIVES: The present study evaluated the changes in cardio-autonomic tone and postural cardiovascular reflex in neck-irradiated patients.
METHODS: Head and neck cancer patients who had received neck irradiation (n=15) and healthy controls (n=15) were evaluated for heart rate variability with time domain analysis of 5 min ECG recording. Postural cardiovascular reflexes were studied with changes in blood pressure and heart rate in the lying to standing test.
RESULTS: Our results suggest that there is a reduction in overall time domain measures of heart rate variability and weakened postural reflexes in

neck-irradiated patients.
CONCLUSION: Decreased heart rate variability in neck-irradiated patients reflects an independent risk of cardiovascular morbidity. The early detection of cardiovascular impairment in such patients may help healthcare professionals in providing better care. Furthermore, the dose delivered to the carotid sinus should be monitored and restricted.

DOI: 10.1080/09553002.2017.1303217
PMID: 28376642 [Indexed for MEDLINE]

51: Grover S, Gudi S, Gandhi AK, Puri PM, Olson AC, Rodin D, Balogun O, Dhillon PK, Sharma DN, Rath GK, Shrivastava SK, Viswanathan AN, Mahantshetty U. Radiation Oncology in India: Challenges and Opportunities. Semin Radiat Oncol. 2017 Apr;27(2):158-163. doi: 10.1016/j.semradonc.2016.11.007. Epub 2016 Nov 14. Review. PubMed PMID: 28325242.

Rising cancer incidence and mortality in India emphasize the need to address the increasing burden of this disease and the stark inequities in access to radiotherapy and other essential medical treatments. State-of-the-art technology is available within the private sector and a few hospitals in the public sector, but 75% of patients in the public sector in India do not have access to timely radiotherapy. This inequity in access to radiotherapy in the public sector is amplified in rural areas, where most of India's population lives. A long-term government commitment to machine purchase and human resource development in the public sector is needed to improve access. A number of innovative initiatives to improve cancer treatment and access have emerged that could support such an investment. These include local production of equipment, twinning programs between institutions in high- and low-income countries to exchange knowledge and expertise, and nongovernmental and state-sponsored schemes to sponsor and support patients in their cancer journey. Strengthening of cancer registries and regulatory bodies with authority to enforce minimum standards is also required to improve care. The more uniform and frequent availability of high-quality radiotherapy can improve cancer outcomes and may be regarded as a marker of a comprehensive and equitable system of health care delivery.

DOI: 10.1016/j.semradonc.2016.11.007
PMID: 28325242

52: Guha S, Sethi R, Ray S, Bahl VK, Shanmugasundaram S, Kerkar P, Ramakrishnan S, Yadav R, Chaudhary G, Kapoor A, Mahajan A, Sinha AK, Mullasari A, Pradhan A, Banerjee AK, Singh BP, Balachander J, Pinto B, Manjunath CN, Makhale C, Roy D, Kahali D, Zachariah G, Wander GS, Kalita HC, Chopra HK, Jabir A, Tharakan J, Paul J, Venogopal K, Baksi KB, Ganguly K, Goswami KC, Somasundaram M, Chhetri MK, Hiremath MS, Ravi MS, Das MK, Khanna NN, Jayagopal PB, Asokan PK, Deb PK, Mohanan PP, Chandra P, Girish CR, Rabindra Nath O, Gupta R, Raghu C, Dani S, Bansal S, Tyagi S, Routray S, Tewari S, Chandra S, Mishra SS, Datta S, Chaterjee SS, Kumar S, Mookerjee S, Victor SM, Mishra S, Alexander T, Samal UC, Trehan V. Cardiological Society of India: Position statement for the management of ST elevation myocardial infarction in India. Indian Heart J. 2017 Apr;69 Suppl 1:S63-S97. doi: 10.1016/j.ihj.2017.03.006. Epub 2017 Mar 23. PubMed PMID: 28400042; PubMed Central PMCID: PMC5388060.

53: Gulati S, Misra A, Pandey RM. Effects of 3Â g of soluble fiber from oats on lipid levels of Asian Indians - a randomized controlled, parallel arm study. Lipids Health Dis. 2017 Apr 4;16(1):71. doi: 10.1186/s12944-017-0460-3. PubMed PMID: 28376899; PubMed Central PMCID: PMC5381086.

BACKGROUND: Cardiovascular diseases are more prevalent and severe in Asian Indians. Simple diet-based strategies are important for prevention of cardiovascular diseases.The aim of the present study was to evaluate the effects

of oats consumption on lipid parameters in mildly hypercholesterolemic Asian Indians living in India.
METHODS: A short-term, prospective, open-labeled, randomized controlled, parallel group study was conducted. Mildly hypercholesterolemic (total cholesterol >200 mg/dL and <240 mg/dL) subjects (n = 80) were randomized into two groups: intervention (n = 40) and usual diet (n = 40). Sample size was calculated for a two-group parallel superiority randomized control trial. Out of 80 enrolled subjects 69 subjects completed the study; 33 in the control group and 36 in the intervention group. In the intervention group, patients were served 70 g of oats twice a day in the form of porridge and upma (A thick porridge from oats with seasonings and vegetables) under observation at the study site. Lipid parameters were assessed at baseline and after 4 weeks of intervention.
RESULTS: There was a reduction of 3.1% in total cholesterol levels in the control group as against 8.1% reduction in the intervention group ($p < 0.02$). Greater reductions were also seen in low-density lipoprotein cholesterol in the intervention group (11.6%) as compared to control group (4.1%, $p < 0.04$) over a period of 28 days.
CONCLUSION: Daily consumption of 3 g of soluble fiber from 70 g of oats leads to beneficial effects on the lipid parameters, specifically total cholesterol and low-density lipoprotein cholesterol in hypercholesterolemic Asian Indians. Large scale studies over a longer period of intervention are required to further establish the cholesterol-lowering effect of oat fiber.
TRIAL REGISTRATION: The study was retrospectively registered at clinicaltrials.gov (dated: 25th Februrary.2015) with registration number NCT02376660 .

DOI: 10.1186/s12944-017-0460-3
PMCID: PMC5381086
PMID: 28376899 [Indexed for MEDLINE]

54: Gupta A, Mittal D, Srinivas M. Gastric Trichobezoars in Children: Surgical Overview. Int J Trichology. 2017 Apr-Jun;9(2):50-53. doi: 10.4103/ijt.ijt_38_17. PubMed PMID: 28839386; PubMed Central PMCID: PMC5551305.

BACKGROUND: Development of trichobezoars in children is primarily a psychiatric issue more than a pediatric surgical ailment. A definite history of trichotillomania and trichophagia may or may not be elicited. Surgical removal is required in patients presenting with huge bezoars. Psychiatric follow-up is of utmost importance to avoid recurrence.
MATERIALS AND METHODS: Records of children who were diagnosed and managed for the presence of gastric trichobezoars were retrospectively reviewed.
RESULTS: Five children presented over past 15 years (2000-2015) with varied presentations ranging from asymptomatic abdominal masses to features of bowel obstruction. There were three adolescent females (aged 10, 12, and 13 years) and two males (aged 2 and 6 years). All had a hugely distended stomach completely filled with the bezoar. After gastrotomy and removal of the bezoar, gastrostomy drainage was provided in three of these five patients whereas the remaining two had nasogastric tube in place. All three with gastrostomy had effective gastric decompression and oral feeds could be established early. On the other hand, remaining two in which gastrostomy was not inserted had prolonged adynamicity of the stomach and delayed establishment of oral feeds.
CONCLUSION: A procrastinated history results in a hugely distended stomach which remains adynamic for a long period of time after removal of the bezoar, and decompression by gastrostomy tube drainage in the postoperative period is a feasible option.

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PMCID: PMC5551305
PMID: 28839386

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

55: Gupta A, Agarwala S, Sreenivas V, Srinivas M, Bhatnagar V. Primary Definitive Procedure versus Conventional Three-staged Procedure for the Management of Low-type Anorectal Malformation in Females: A Randomized Controlled Trial. J Indian Assoc Pediatr Surg. 2017 Apr-Jun;22(2):87-91. doi: 10.4103/jiaps.JIAPS_228_16. PubMed PMID: 28413302; PubMed Central PMCID: PMC5379879.

INTRODUCTION: Females with Krickenbeck low-type anorectal malformations - vestibular fistula (VF) and perineal fistula (PF) - are managed either by a primary definitive or conventional three-staged approach. Ultimate outcome in these children may be affected by wound dehiscence leading to healing by fibrosis. Most of the literature favors one approach over other based on retrospective analysis of their outcomes. Whether a statistically significant difference in wound dehiscence rates between these approaches exists needed to be seen.
MATERIALS AND METHODS: A randomized controlled trial for girls <14 years with VF or PF was done. Random tables were used to randomize 33 children to Group I (primary procedure) and 31 to Group II (three-staged procedure). Statistical analysis was done for significance of difference ($P < 0.05$) in the primary outcome (wound dehiscence) and secondary outcomes (immediate and early postoperative complications).
RESULTS: Of the 64 children randomized, 54 (84%) had VF. Both groups were comparable in demography, clinical profile and age at surgery. The incidence of wound dehiscence (39.4% vs. 18.2%; $P = 0.04$), immediate postoperative complications (51.5% vs. 12.9%; $P = 0.001$), and early postoperative complications (42.4% vs. 12.9%; $P = 0.01$) was significantly higher in Group I as compared to Group II. Six of 13 children (46.2%) with dehiscence in Group I required a diverting colostomy to be made.
CONCLUSIONS: Females with VF or PF undergoing primary definitive procedure have a significantly higher incidence of wound dehiscence ($P = 0.04$), immediate ($P = 0.001$) and early postoperative complications ($P = 0.01$).

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

56: Gupta A, Kapil U, Ramakrishnan L, Pandey RM, Yadav CP. Prevalence of Vitamin B(12) and Folate Deficiency in School Children Residing at High Altitude Regions in India. Indian J Pediatr. 2017 Apr;84(4):289-293. doi: 10.1007/s12098-017-2291-7. Epub 2017 Jan 21. PubMed PMID: 28108882.

OBJECTIVE: To assess the prevalence of vitamin B12 and folate deficiencies among children residing at high altitude regions of Himachal Pradesh, India.
METHODS: A total of 215 school children in the age group of 6-18 y were included. Biochemical estimation of serum vitamin B12 and folate levels was undertaken using chemiluminescence immunoassay method. The consumption pattern of foods high in dietary vitamin B12 and folate was recorded using Food Frequency Questionnaire.
RESULTS: The median levels (interquartile range) of serum vitamin B12 and folate were 326 (259-395) pg/ml and 7.7 (6-10) ng/ml respectively. The prevalence of vitamin B12 and folate deficiency amongst school age children was found as 7.4% and 1.5% respectively.
CONCLUSIONS: A low prevalence of vitamin B12 and folate deficiencies was found amongst children aged 6-18 y living at high altitude regions in India. This is possibly due to high frequency of consumption of foods rich in vitamin B12 and folate.

DOI: 10.1007/s12098-017-2291-7
PMID: 28108882

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Strongyloides stercoralis Infection: A Case Series from a Tertiary Care Center in India. J Glob Infect Dis. 2017 Apr-Jun;9(2):86-87. doi: 10.4103/0974-777X.204694. PubMed PMID: 28584464; PubMed Central PMCID: PMC5452560.

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BACKGROUND: Pediatric glioblastoma (pGBM) is an uncommon entity. The importance of concurrent and adjuvant temozolomide is not known in this subset of patients.
METHODS: We retrospectively analyzed our database between 2000 and 2015. All patients were treated with maximally safe surgical resection. This was followed by a uniform treatment schedule of post-operative radiation with concurrent daily temozolomide at 75 mg/m(2). Radiation dose was 60 Gy in 30 fractions planned by 3-dimensional conformal radiotherapy. Concurrent and adjuvant temozolomide was used in all patients treated after 2007. Four weeks later, adjuvant temozolomide was started at 150 mg/m(2), day 1 to 5 every 28 days and escalated to 200 mg/m(2) from the second cycle onwards if well tolerated. Log-rank test was used to compare survival distribution. The data was analyzed using SPSS (version 16).
RESULTS: Fifty-one patients were analyzed. Median age was 14 years (range: 5 to 21 years). Thirty-five males and 16 females were noted. Median symptom duration was 4 months. Twenty-eight patients underwent a gross total resection (GTR) while 17 underwent a subtotal resection; six patients underwent decompression. Thirty-three patients received concurrent chemotherapy while 27 received adjuvant chemotherapy. Median progression-free survival (PFS) was 15.1 months. One- and 3-year PFS was 54.4% and 3-year PFS was 24.6.7%. The median overall survival was 17.4 months. In univariate analysis survival was better for gross total resection (17.4 months vs. 11.5 months; p = 0.037), and significance maintained after multivariate analysis p = 0.026, HR 3.069, 95% CI 1.14-8.23. In univariate analysis, survival was better for patients receiving temozolomide but did not achieve significance. However, in multivariate analysis, use of temozolomide was associated with significantly improved survival p = 0.036, HR 3.315, 95% CI 1.07-10.19.
CONCLUSIONS: GTR improves survival significantly in pGBM. Adjuvant temozolomide may improve survival in pGBM.

DOI: 10.1007/s00381-017-3381-6
PMID: 28424876

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62: Haldar P, Sagar R, Malhotra S, Kant S. Burden of psychiatric morbidity among attendees of a secondary level hospital in Northern India: Implications for integration of mental health care at subdistrict level. Indian J Psychiatry. 2017 Apr-Jun;59(2):176-182. doi: 10.4103/psychiatry.IndianJPsychiatry_324_16. PubMed PMID: 28827864; PubMed Central PMCID: PMC5547858.

BACKGROUND: There is little information available on the type, pattern, trend, and demographic differentials of psychiatric cases attending a subdistrict level facility in India. Our objectives were to describe the sociodemographic profile of the patients availing the psychiatric outpatient department services and document the diagnosis.
MATERIALS AND METHODS: This study is based on a retrospective analysis of routinely recorded administrative data collected during psychiatry consultations that took place between January 2010 and June 2014, at the subdistrict level hospital, Ballabgarh, Faridabad district, Haryana, Northern India. The data were abstracted in Microsoft Excel, scrutinized for duplicates, and cleaned in terms of the International Classification of Diseases 10(th) Revision coding. Descriptive analysis was done for dependent variables and continuous variables were compared using independent t-test.
RESULTS: A total of 2806 people (new registrations) were provided psychiatric consultations between January 2010 and June 2014. The mean age of males was 33.7 years (95% confidence interval [CI], 32.9, 34.5) and of females was 35.6 years (95% CI, 34.9, 36.3). Neurotic, stress-related, and somatoform disorders (F40-F48) comprised the major category of diagnoses with 661 cases (24%), followed by unspecified mental disorders (F99) with 528 cases (19%), mood (affective) disorders (F30-F39) with 448 cases (16%), and episodic and paroxysmal disorders (G40-G47) with 334 cases (12%).
CONCLUSIONS: We reported an increase in level and trend in the monthly attendance of patients who required psychiatric at a secondary care hospital in Northern India. We suggest that setting up of mental health units only at district hospital might not be a sufficient health system's approach as has been envisaged under the District Mental Health Program.

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PMID: 28827864

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

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Influence of polymorphisms in the genes coding for imatinib transporters and metabolizing enzymes on cytogenetic relapse in patients with chronic myeloid leukemia (CML) is not known. One hundred and four patients (52 cases with cytogenetic relapse and 52 controls without relapse) with chronic-phase CML on imatinib therapy and have completed 5 years of follow-up were enrolled. The following single nucleotide polymorphisms (SNPs) were genotyped; C1236T, C3435T, G2677T/A in MDR1 gene and A6986G in CYP3A5 gene, using PCR-RFLP method and validated by direct gene sequencing. Imatinib trough levels were measured using LC-MS/MS. Patients with CC genotype for MDR1-C1236T polymorphism were at significantly higher risk for cytogenetic relapse [OR =4.382, 95% CI (1.145, 16.774), p=.022], while those with TT genotype for MDR1-C3435T polymorphism had significantly lower risk of relapse [OR =0.309, 95% CI (0.134, 0.708), p=.005]. Imatinib trough levels were lower in patients with relapse compared to those without relapse (1551.4±1324.1 vs. 2154.2±1358.3ng/mL; p=.041). MDR1-C3435T genotype [adjusted-OR: 0.266; 95% CI (0.111, 0.636); p=.003] and trough levels (p=.014) were independent predictors of relapse in multivariate analysis. To conclude, C1236T and C3435T polymorphisms in MDR1 gene and trough levels significantly influence the risk of cytogenetic relapse. MDR1-C3435T

genotype might emerge as a potential biomarker to predict the risk of cytogenetic relapse in patients with CML.

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PMID: 28367681

65: Jain S, Mittal A, Sharma SK, Upadhyay AD, Pandey RM, Sinha S, Soneja M, Biswas A, Jadon RS, Kakade MB, Dayaraj C. Predictors of Dengue-Related Mortality and Disease Severity in a Tertiary Care Center in North India. Open Forum Infect Dis. 2017 May 5;4(2):ofx056. doi: 10.1093/ofid/ofx056. eCollection 2017 Spring. PubMed PMID: 28491893; PubMed Central PMCID: PMC5419201.

BACKGROUND: There is lack of reliable predictors of disease severity and mortality in dengue. The present study was carried out to identify these predictors during the 2015 outbreak in India.
METHODS: This prospective observational study included confirmed adult dengue patients hospitalized between August and November 2015 in a tertiary care centre in New Delhi, India. Appropriate statistical tests were used to compare clinicolaboratory characteristics, derive predictors of severe disease and mortality, and compute a predictive score for mortality. Serotyping was done.
RESULTS: Data of 369 patients were analyzed (mean age, 30.9 years; 67% males). Of these, 198 (54%) patients had dengue fever, 125 (34%) had dengue hemorrhagic fever (grade 1 or 2), and 46 (12%) developed dengue shock syndrome (DSS). Twenty-two (6%) patients died. Late presentation to the hospital (≥5 days after onset) and dyspnea at rest were identified as independent predictors of severe disease. Age ≥24 years, dyspnea at rest and altered sensorium were identified as independent predictors of mortality. A clinical risk score was developed (12*age + 14*sensorium + 10*dyspnea), which, if ≥22, predicted mortality with a high sensitivity (81.8%) and specificity (79.2%). The predominant serotypes in Delhi (2015) were dengue virus DENV2 and DENV4.
CONCLUSION: Age ≥24 years, dyspnea at rest, and altered sensorium were identified as independent predictors of mortality. Platelet counts did not determine outcome in dengue patients. Timely referral/access to healthcare is important. The clinical risk score for mortality prediction that was developed in this study can be used in all healthcare settings, after validation in larger cohorts.

DOI: 10.1093/ofid/ofx056
PMCID: PMC5419201
PMID: 28491893

66: Jain TK, Karunanithi S, Bal C, Kumar R. 18F-FDG PET/CT Imaging in Adrenal Cryptococcosis. Clin Nucl Med. 2017 Apr;42(4):e194-e195. doi: 10.1097/RLU.0000000000001214. PubMed PMID: 28114222.

Cryptococcosis is a fungal infection, relatively rare in the absence of impaired immunity. Lung or brain may be involved. Cryptococcal dissemination is rare in absence of impaired immunity, and documentation of alone adrenal involvement without central nervous system involvement is rare. Here, we present a case of an immunocompetent patient presented with bilateral adrenal cryptococcosis with adrenal insufficiency, without central nervous system involvement and F-FDG PET/CT correctly identified the residual disease.

DOI: 10.1097/RLU.0000000000001214
PMID: 28114222 [Indexed for MEDLINE]

67: Jana M, Nair N, Gupta AK, Kabra M, Gupta N. Pelvic radiograph in skeletal dysplasias: An approach. Indian J Radiol Imaging. 2017 Apr-Jun;27(2):187-199. doi: 10.4103/ijri.IJRI_367_16. PubMed PMID: 28744080; PubMed Central PMCID: PMC5510317.

The bony pelvis is constituted by the ilium, ischium, pubis, and sacrum. The pelvic radiograph is an important component of the skeletal survey performed in suspected skeletal dysplasia. Most of the common skeletal dysplasias have either

minor or major radiological abnormalities; hence, knowledge of the normal radiological appearance of bony pelvis is vital for recognizing the early signs of various skeletal dysplasias. This article discusses many common and some uncommon radiological findings on pelvic radiographs along with the specific dysplasia in which they are seen; common differential diagnostic considerations are also discussed.

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PMCID: PMC5510317
PMID: 28744080

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

68: Jebaraj B, Ramachandran R, Rewari V, Trikha A, Chandralekha, Kumar R, Dogra PN. Feasibility of dexmedetomidine as sole analgesic agent during robotic urological surgery: A pilot study. J Anaesthesiol Clin Pharmacol. 2017 Apr-Jun;33(2):187-192. doi: 10.4103/0970-9185.209753. PubMed PMID: 28781443; PubMed Central PMCID: PMC5520590.

BACKGROUND AND AIMS: Opioid-free anesthesia decreases postoperative nausea and vomiting, emergence agitation, prolonged sedation, ileus, and urinary retention. The feasibility of the use of dexmedetomidine as sole analgesic agent has been shown in patients undergoing bariatric and gynecological laparoscopic surgery. We explored its use for robotic urological surgery.
MATERIAL AND METHODS: Thirty patients were randomized to receive either dexmedetomidine (Group D) or fentanyl (Group F) along with total intravenous anesthesia with propofol. The hemodynamic parameters and number of doses of rescue analgesics used intraoperatively and postoperatively were noted. Recovery parameters at the end of surgery were also recorded.
RESULTS: The dose of intraoperative rescue fentanyl was not significantly different between groups (P = 0.13). The hemodynamic profile of patients in the two groups was comparable except the heart rate was significantly more in Group D after intubation and at 60 min. The mean arterial pressure was significantly lower after the initial loading dose of study drug in Group D. The recovery profiles were not significantly different between groups.
CONCLUSION: The study reveals that dexmedetomidine has equal analgesic efficacy as fentanyl for intraoperative use and can be used as the sole analgesic agent in patients undergoing robotic urological surgery.

DOI: 10.4103/0970-9185.209753
PMCID: PMC5520590
PMID: 28781443

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

69: Joshi MK, Singh T, Badyal DK. Acceptability and feasibility of mini-clinical evaluation exercise as a formative assessment tool for workplace-based assessment for surgical postgraduate students. J Postgrad Med. 2017 Apr-Jun;63(2):100-105. doi: 10.4103/0022-3859.201411. PubMed PMID: 28272063; PubMed Central PMCID: PMC5414419.

BACKGROUND: Despite an increasing emphasis on workplace-based assessment (WPBA) during medical training, the existing assessment system largely relies on summative assessment while formative assessment is less valued. Various tools have been described for WPBA, mini-clinical evaluation exercise (mini-CEX) being one of them. Mini-CEX is well accepted in Western countries, however, reports of its use in India are scarce. We conducted this study to assess acceptability and feasibility of mini-CEX as a formative assessment tool for WPBA of surgical postgraduate students in an Indian setting.
METHODS: Faculty members and 2nd year surgical residents were sensitized toward mini-CEX and requisite numbers of exercises were conducted. The difficulties during conduction of these exercises were identified, recorded, and appropriate measures were taken to address them. At the conclusion, the opinion of residents

and faculty members regarding their experience with mini-CEX was taken using a questionnaire. The results were analyzed using simple statistical tools.
RESULTS: Nine faculty members out of 11 approached participated in the study (81.8%). All 16 2nd year postgraduate surgical residents participated (100%). Sixty mini-CEX were conducted over 7 months. Each resident underwent 3-5 encounters. The mean time taken by the assessor for observation was 12.3 min (8-30 min) while the mean feedback time was 4.2 min (3-10 min). The faculty reported good overall satisfaction with mini-CEX and found it acceptable as a formative assessment tool. Three faculty members (33.3%) reported mini-CEX as more time-consuming while 2 (22.2%) found it difficult to carry the exercises often. All residents accepted mini-CEX and most of them reported good to high satisfaction with the exercises conducted.
CONCLUSIONS: Mini-CEX is well accepted by residents and faculty as a formative assessment tool. It is feasible to utilize mini-CEX for WPBA of postgraduate students of surgery.

DOI: 10.4103/0022-3859.201411
PMCID: PMC5414419
PMID: 28272063

70: Joshi P, Das P, Iyer V, Gupta SD. Cytocentrifuged biopsy fixative preparation: A simple cost-effective technique facilitating microscopic diagnosis of lumen-dwelling intestinal parasites. Indian J Pathol Microbiol. 2017 Apr-Jun;60(2):202-205. doi: 10.4103/IJPM.IJPM_417_16. PubMed PMID: 28631635.

OBJECTIVE: Direct microscopic visualization is the most specific method for detecting intestinal parasites and is commonly achieved by stool examination or mucosal biopsy. However, postfixation, the intestinal biopsy fragment is often curled, and the entire surface of the biopsied mucosa is seldom viewed microscopically. Tissue processing further distorts morphology of the organisms and causes diagnostic difficulties. Examining multiple sections for parasite detection is time-consuming and often requires aid of special stains and/or immunohistochemistry. To overcome these disadvantages, we hypothesized that the fixative in which biopsies are transferred may provide a valid representation of the biopsied mucosal surface and therefore aid in the identification of mucosal surface parasites.
MATERIALS AND METHODS: Formalin in which biopsies were transferred was retained, stored at 4°C and processed with a cytocentrifuge. Totally, 120 consequent duodenal biopsy fixatives were processed in this way and the cytocentrifuged smears visualized after May-Grunwald-Giemsa staining. Findings of these smears were correlated with their corresponding formalin fixed paraffin embedded tissue sections.
RESULTS: Cytocentrifuged formalin preparations were found to be representative of the mucosal surface contents. Giardia trophozoites were visualized in 10/120 preparations with distinct morphological characteristics which were seldom appreciable in tissue sections, eliminating the need for special stains. Furthermore, two of the corresponding histology sections did not demonstrate the parasites despite step sections, while in one case few parasites could be identified in the step sections.
CONCLUSIONS: Cytocentrifuged fixative preparation is a simple and cost-effective technique which can be routinely employed for intestinal parasite characterization.

DOI: 10.4103/IJPM.IJPM_417_16
PMID: 28631635

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Thyroid function is closely interlinked with pregnancy. Maternal and foetal outcomes can be improved if optimal thyroid function is achieved, and maintained prior to conception. This needs a systematic approach which includes rational screening, appropriate management, and pragmatic counseling. This review describes pre-conception management of thyroid disorders, and completes an earlier article on preconception management of other endocrine diseases.

PMID: 28420934

73: Kalra S, Gupta Y. Prevention of hypoglycaemia, the ASAP (Anticipate, Suspect, Act, Prevent) strategy. J Pak Med Assoc. 2017 Apr;67(4):648-649. PubMed PMID: 28420935.

This article describes a simple framework to prevent hypoglycaemia. Four strategies of prevention are detailed, which correspond to four levels of prevention (primordial, primary, secondary and tertiary). This framework, given the mnemonic ASAP (As Soon As Possible) includes action to Anticipate and Avoid, and Suspect and Screen hypoglycaemia. It also enjoins us to Act and Assist persons with hypoglycaemia in a timely manner, while working to Prevent and Protect them by using safer glucose lowering drugs and insulins.

74: Kamal K, Asthana U, Bansal T, Dureja J, Ahlawat G, Kapoor S. Evaluation of efficacy of dexmedetomidine versus propofol for sedation in children undergoing magnetic resonance imaging. Saudi J Anaesth. 2017 Apr-Jun;11(2):163-168. doi: 10.4103/1658-354X.203014. PubMed PMID: 28442954; PubMed Central PMCID: PMC5389234.

BACKGROUND: A deep level of sedation is required for magnetic resonance imaging (MRI) in children to ensure optimum image quality. The present study was conducted to evaluate the efficacy and safety of dexmedetomidine versus propofol for sedation in children undergoing MRI.
MATERIALS AND METHODS: A total of sixty children aged 2-10 years, having physical status 1 or 2 according to the American Society of Anesthesiologists, undergoing MRI were included in the study. Group D: (n = 30) received injection dexmedetomidine 2 µg/kg for 10 min followed by continuous infusion of 1.0 µg/kg/h. Group P (n = 30) received injection propofol 1 mg/kg bolus followed by continuous infusion of 100 µg/kg/min.
RESULTS: The mean time for onset of sedation in Group D was much longer than in Group P (P = 0.000). Mean duration of sedation was comparable in the two groups. The number of patients requiring increased infusion of study drug was significantly higher in Group D (30%) as compared to Group P (16.7%) (P < 0.05). The average recovery time in Group D was much longer than in Group P (P < 0.001).
CONCLUSION: Propofol had an advantage of providing rapid onset of sedation and quicker recovery time. Dexmedetomidine resulted in a better preservation of respiratory rate and oxygen saturation, so it may be more suitable in children who are prone to respiratory depression. Hence, both the drugs could achieve required sedation in children posted for MRI.

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PMID: 28442954

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

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76: Kant S, Lohiya A, Kapil A, Gupta SK. Urinary tract infection among pregnant women at a secondary level hospital in Northern India. Indian J Public Health. 2017 Apr-Jun;61(2):118-123. doi: 10.4103/ijph.IJPH_293_15. PubMed PMID: 28721962.

BACKGROUND: Urinary tract infection (UTI) during pregnancy is frequently associated with complications. Currently, in India, there is no regular screening for UTI, and facility for diagnosis of UTI is not available at peripheral government health centers.
OBJECTIVE: To estimate the proportion of pregnant women with UTI among antenatal clinic attendees in rural Haryana.
METHODS: Eligible participants were pregnant women attending antenatal clinic of secondary care center of rural Haryana from March to May 2015. Consecutive sampling was done to select pregnant women. Interview schedule was administered to the selected women, and midstream urine sample was collected. Urine sample was plated on MacConkey agar, and colony count was done using standard methods.
RESULTS: A total of 1253 pregnant women were included in the study. The proportion of women with symptoms of UTI on the basis of history was 33.3% (95% confidence interval [CI] - 30.7, 35.9), and UTI by colony count was 3.3% (95% CI - 2.4, 4.5). The presence of UTI was found to be significantly associated with the presence of any symptom of UTI on multivariate analysis (odds ratio [95% CI] - 7.35 [1.95, 27.77]).
CONCLUSIONS: The burden of UTI among pregnant women attending antenatal clinic of a sub-district hospital was considerable, more so among the women that presented with symptoms suggestive of UTI. The study suggested that considering the burden of UTI and its complications, diagnosis of UTI at a resource-constrained setting like a secondary care hospital can be done after screening women for symptoms suggestive of UTI.

DOI: 10.4103/ijph.IJPH_293_15
PMID: 28721962

77: Kar M, Singla M, Chandele A, Kabra SK, Lodha R, Medigeshi GR. Dengue Virus Entry and Replication Does Not Lead to Productive Infection in Platelets. Open Forum Infect Dis. 2017 Mar 23;4(2):ofx051. doi: 10.1093/ofid/ofx051. eCollection 2017 Spring. PubMed PMID: 28491890; PubMed Central PMCID: PMC5420081.

Thrombocytopenia is a characteristic feature during the acute phase of dengue infection and has been found to associate with vascular leakage in severe dengue. Although dengue antigens have been observed in platelets, there is no strong evidence to suggest a direct infection of platelets by dengue virus as a contributing factor for thrombocytopenia. We show that dengue virus can enter platelets but replicate viral ribonucleic acid to a minimal extent and, therefore, cannot produce infectious virus. Dengue antigen was undetectable in platelets isolated from dengue patients; however, we observed an increase in CD14(+)CD16(+) monocyte-platelet complexes, suggesting a mechanism for platelet clearance.

DOI: 10.1093/ofid/ofx051
PMCID: PMC5420081
PMID: 28491890

78: Karthikeyan G, Guzic Salobir B, Jug B, Devasenapathy N, Alexanderson E, Vitola J, Kraft O, Ozkan E, Sharma S, Purohit G, Dolenc Novak M, Meave A, Trevethan S, Cerci R, Zier S, GotthardtovÃ¡ L, Jonszta T, Altin T, Soydal C, Patel C, Gulati G, Paez D, Dondi M, Kashyap R. Functional compared to anatomical imaging in the initial evaluation of patients with suspected coronary artery disease: An international, multi-center, randomized controlled trial (IAEA-SPECT/CTA study). J Nucl Cardiol. 2017 Apr;24(2):507-517. doi: 10.1007/s12350-016-0664-3. Epub 2016 Oct 28. PubMed PMID: 27796852; PubMed Central PMCID: PMC5413523.

OBJECTIVE: To test the hypothesis that, in the initial evaluation of patients with suspected coronary artery disease (CAD), stress myocardial perfusion imaging

(MPI) would result in less downstream testing than coronary computed tomographic angiography (CCTA).
METHODS: In this international, randomized trial, mildly symptomatic patients with an intermediate likelihood of having CAD, and asymptomatic patients at intermediate risk of cardiac events, underwent either initial stress-rest MPI or CCTA. The primary outcome was downstream noninvasive or invasive testing at 6 months. Secondary outcomes included cumulative effective radiation dose (ERD) and costs at 12 months.
RESULTS: We recruited 303 patients (151 MPI and 152 CTA) from 6 centers in 6 countries. The initial MPI was abnormal in 29% (41/143) and CCTA in 56% (79/141) of patients. Fewer patients undergoing initial stress-rest MPI had further downstream testing at 6 months (adjusted OR 0.51, 95% CI 0.28-0.91, P = 0.023). There was a small increase in the median cumulative ERD with MPI (9.6 vs. 8.8 mSv, P = 0.04), but no difference in costs between the two strategies at 12 months.
CONCLUSION: In the management of patients with suspected CAD, a strategy of initial stress MPI is substantially less likely to require further downstream testing than initial testing with CCTA.
TRIAL REGISTRATION: clinicaltrials.gov identification number NCT01368770.

DOI: 10.1007/s12350-016-0664-3
PMCID: PMC5413523
PMID: 27796852

79: Kashani K, Macedo E, Burdmann EA, Hooi LS, Khullar D, Bagga A, Chakravarthi R, Mehta R. Acute Kidney Injury Risk Assessment: Differences and Similarities Between Resource-Limited and Resource-Rich Countries. Kidney Int Rep. 2017 Jul;2(4):519-529. doi: 10.1016/j.ekir.2017.03.014. Epub 2017 Apr 25. PubMed PMID: 28845471; PubMed Central PMCID: PMC5568820.

The incidence of acute kidney injury (AKI) among acutely ill patients is reportedly very high and has vexing consequences on patient outcomes and health care systems. The risks and impact of AKI differ between developed and developing countries. Among developing countries, AKI occurs in young individuals with no or limited comorbidities, and is usually due to environmental causes, including infectious diseases. Although several risk factors have been identified for AKI in different settings, there is limited information on how risk assessment can be used at population and patient levels to improve care in patients with AKI, particularly in developing countries where significant health disparities may exist. The Acute Disease Quality Initiative consensus conference work group addressed the issue of identifying risk factors for AKI and provided recommendations for developing individualized risk stratification strategies to improve care. We proposed a 5-dimension, evidence-based categorization of AKI risk that allows clinicians and investigators to study, define, and implement individualized risk assessment tools for the region or country where they practice. These dimensions include environmental, socioeconomic and cultural factors, processes of care, exposures, and the inherent risks of AKI. We provide examples of these risks and describe approaches for risk assessments in the developing world. We anticipate that these recommendations will be useful for health care providers to plan and execute interventions to limit the impact of AKI on society and each individual patient. Using a modified Delphi process, this group reached consensus regarding several aspects of AKI risk stratification.

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PMID: 28845471

Conflict of interest statement: DISCLOSURE All the authors declared no competing interests.

80: Kashyap L, Nisa N, Chowdhury AR, Khanna P. Safety issues of endobronchial intubation for one-lung ventilation in video-assisted thoracoscopic surgery in neonates: Can we extubate on the table? Saudi J Anaesth. 2017

Apr-Jun;11(2):254-255. doi: 10.4103/1658-354X.203058. PubMed PMID: 28442980; PubMed Central PMCID: PMC5389260.

81: Kaur H, Chopra S, Pandey RM, Bhatia R, Nehra A. Translation and Adaptation of Stroke Aphasia Depression Questionnaire-10 to Hindi. Ann Indian Acad Neurol. 2017 Apr-Jun;20(2):153-155. doi: 10.4103/aian.AIAN_456_16. PubMed PMID: 28615902; PubMed Central PMCID: PMC5470159.

BACKGROUND: Depression is one of the most researched emotional responses after stroke and shows that the emotional impact of aphasia can have a marked negative impact on recovery, response to rehabilitation, and psychosocial adjustment. There is an evident dearth of validated instruments to assess depression in people with aphasia including Hindi, the national language of the country.
AIMS: The aim of this study was to translate and adapt the original English version of widely used hospital version of Stroke Aphasia Depression Questionnaire (SADQ-10) to Hindi.
SUBJECTS AND METHODS: English version of SADQ-10 was translated and adapted for the use in Hindi-speaking population in concordance to the WHO guidelines.
STATISTICAL ANALYSIS USED: The intraclass correlation coefficient (ICC) analysis of the data was performed using SPSS, version 16, to compute the test-retest reliability.
RESULTS: The Hindi version of SADQ-10 yielded an overall high test-retest reliability (ICC = 0.91) as well as internal consistency (α = 0.98), which in turn were comparable to the original instrument in English.
CONCLUSIONS: SADQ10-Hindi may assist the identification of depressed mood in patients with speech and language impairment in an Indian population as well. It is an easy to administer and quick test which can be used by health-care professionals in a hospital- or community-based settings.

DOI: 10.4103/aian.AIAN_456_16
PMCID: PMC5470159
PMID: 28615902

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

82: Kedia S, Sharma R, Sreenivas V, Madhusudhan KS, Sharma V, Bopanna S, Pratap Mouli V, Dhingra R, Yadav DP, Makharia G, Ahuja V. Accuracy of computed tomographic features in differentiating intestinal tuberculosis from Crohn's disease: a systematic review with meta-analysis. Intest Res. 2017 Apr;15(2):149-159. doi: 10.5217/ir.2017.15.2.149. Epub 2017 Apr 27. Review. PubMed PMID: 28522943; PubMed Central PMCID: PMC5430005.

Abdominal computed tomography (CT) can noninvasively image the entire gastrointestinal tract and assess extraintestinal features that are important in differentiating Crohn's disease (CD) and intestinal tuberculosis (ITB). The present meta-analysis pooled the results of all studies on the role of CT abdomen in differentiating between CD and ITB. We searched PubMed and Embase for all publications in English that analyzed the features differentiating between CD and ITB on abdominal CT. The features included comb sign, necrotic lymph nodes, asymmetric bowel wall thickening, skip lesions, fibrofatty proliferation, mural stratification, ileocaecal area, long segment, and left colonic involvements. Sensitivity, specificity, positive and negative likelihood ratios, and diagnostic odds ratio (DOR) were calculated for all the features. Symmetric receiver operating characteristic curve was plotted for features present in >3 studies. Heterogeneity and publication bias was assessed and sensitivity analysis was performed by excluding studies that compared features on conventional abdominal CT instead of CT enterography (CTE). We included 6 studies (4 CTE, 1 conventional abdominal CT, and 1 CTE+conventional abdominal CT) involving 417 and 195 patients with CD and ITB, respectively. Necrotic lymph nodes had the highest diagnostic accuracy (sensitivity, 23%; specificity, 100%; DOR, 30.2) for ITB diagnosis, and comb sign (sensitivity, 82%; specificity, 81%; DOR, 21.5) followed by skip lesions (sensitivity, 86%; specificity, 74%; DOR, 16.5) had the highest

diagnostic accuracy for CD diagnosis. On sensitivity analysis, the diagnostic accuracy of other features excluding asymmetric bowel wall thickening remained similar. Necrotic lymph nodes and comb sign on abdominal CT had the best diagnostic accuracy in differentiating CD and ITB.

DOI: 10.5217/ir.2017.15.2.149
PMCID: PMC5430005
PMID: 28522943

Conflict of interest statement: Conflict of interest: None.

83: Khan MA, Zafaryab M, Mehdi SH, Quadri J, Rizvi MM. Characterization and carboplatin loaded chitosan nanoparticles for the chemotherapy against breast cancer in vitro studies. Int J Biol Macromol. 2017 Apr;97:115-122. doi: 10.1016/j.ijbiomac.2016.12.090. Epub 2017 Jan 9. PubMed PMID: 28082219.

Aim of the studies to synthesized chitosan nanoparticles by an ionic interaction procedure. The nanoparticles were characterized by physicochemical methods like, DLS, TEM, Surface potential measurements, FT-IR and DSC. The average particle size of chitosan and carboplatin nanoparticles was found to be 277.25±11.37nm and 289.30±8.15nm and zeta potential was found to be 31±3.14mV and 33±2.15mV respectively with low polydispersity index. The maximum entrapment of carboplatin in nanoparticles was a spherical shape with a positive charge. The maximum encapsulation and loading efficiencies of carboplatin (5mg/ml) were obtained to be 58.43% and 13.27% respectively. The nanocarboplatin was better blood compatibility as compared to chitosan nanoparticles. Finally, the cytotoxic effects of the carboplatin loaded chitosan nanoparticles were tested in-vitro against breast cancer (MCF-7) cell lines. Our studies showed that the chitosan nanoparticles could be used as a promising candidate for drug delivery for the therapeutic treatment of breast cancer.

DOI: 10.1016/j.ijbiomac.2016.12.090
PMID: 28082219 [Indexed for MEDLINE]

84: Khandpur S, Porter RM, Boulton SJ, Anstey A. Drug-induced photosensitivity: new insights into pathomechanisms and clinical variation through basic and applied science. Br J Dermatol. 2017 Apr;176(4):902-909. doi: 10.1111/bjd.14935. Epub 2017 Feb 28. Review. PubMed PMID: 27510322.

Drug-induced photosensitivity occurs when a drug is capable of absorbing radiation from the sun (usually ultraviolet A) leading to chemical reactions that cause cellular damage (phototoxicity) or, more rarely, form photoallergens (photoallergy). The manifestation varies considerably in presentation and severity from mild pain to severe blistering. Despite screening strategies and guidelines in place to predict photoreactive drugs during development there are still new drugs coming onto the market that cause photosensitivity. Thus, there is a continuing need for dermatologists to be aware of the different forms of presentation and the culprit drugs. Management usually involves photoprotection and cessation of drug treatment. However, there are always cases where the culprit drug is indispensable. The reason why some patients are susceptible while others remain asymptomatic is not known. A potential mechanism for the phototoxic reactions is the generation of reactive oxygen species (ROS), and there are a number of reasons why some patients might be less able to cope with enhanced levels of ROS.

DOI: 10.1111/bjd.14935
PMID: 27510322 [Indexed for MEDLINE]

85: Khanna G, Sharma P, Madhusudhan KS, Barwad A, Ranjan P, Mishra B, Das P.

Intrahepatic biliary cystadenoma with ciliary metaplasia: Report of a rare morphological variant. Indian J Pathol Microbiol. 2017 Apr-Jun;60(2):253-255. doi: 10.4103/0377-4929.208394. PubMed PMID: 28631647.

Histological diagnosis of biliary cystadenoma is based on the type of epithelial cells lining the cyst and radiological features. The cyst-lining cells are not usually ciliated. We herein report a very rare example of an intrahepatic biliary cystadenoma with ciliated epithelial lining, which had taken us away from this diagnosis toward an intrahepatic foregut duplication cyst. Radiologically, also the lesion was deceptive, and a possibility of hydatid cyst was considered. However, immunohistochemical workup finally led us to this diagnosis. This report would document this rare morphological variant, which may pose diagnostic difficulty.

DOI: 10.4103/0377-4929.208394
PMID: 28631647

86: Kiran U, Ladha S, Makhija N, Kapoor PM, Choudhury M, Das S, Gharde P, Malik V, Airan B. The role of Rajyoga meditation for modulation of anxiety and serum cortisol in patients undergoing coronary artery bypass surgery: A prospective randomized control study. Ann Card Anaesth. 2017 Apr-Jun;20(2):158-162. doi: 10.4103/aca.ACA_32_17. PubMed PMID: 28393774; PubMed Central PMCID: PMC5408519.

INTRODUCTION: Rajyoga meditation is a form of mind body intervention that is promoted by the Brahma Kumaris World Spiritual University. This form of meditation can be easily performed without rituals or mantras and can be practiced anywhere at any time. The practice of Rajyoga meditation can have beneficial effects on modulating anxiety and cortisol level in patients undergoing major cardiac surgery.
MATERIALS AND METHODS: A prospective randomized control study was carried out in a single tertiary care center. One hundred and fifty patients undergoing elective coronary artery bypass surgery were enrolled in the study. The patients were randomized in two groups namely, Group 1 (Rajyoga group) and Group 2 (Control Group). Anxiety was measured on a visual analog scale 1-10 before the start of Rajyoga training or patient counseling (T1), on the morning of the day of surgery (T2), on the 2nd postoperative day (T3), and on the 5th postoperative day (T4). The serum cortisol level was measured in the morning of the day of surgery (T1), on the 2nd postoperative day (T2) and on the 5th postoperative day (T3), respectively.
RESULTS: In the study, it was seen that the anxiety level of the patients before the surgery (T1) and on the day of surgery (T2) were comparable between the two groups. However on the 2nd postoperative day (T3), the patients who underwent Rajyoga training had lower anxiety level in comparison to the control group (3.12 ± 1.45 vs. 6.12 ± 0.14, $P < 0.05$) and on the 5th postoperative day (T4) it was seen that Rajyoga practice had resulted in significant decline in anxiety level (0.69 ± 1.1 vs. 5.6 ± 1.38, $P < 0.05$). The serum cortisol level was also favorably modulated by the practice of Rajyoga meditation.
CONCLUSION: Mindbody intervention is found to effective in reducing the anxiety of the patients and modulating the cortisol level in patients undergoing wellknown stressful surgery like coronary artery bypass surgery.

DOI: 10.4103/aca.ACA_32_17
PMCID: PMC5408519
PMID: 28393774

87: Knowles JM, Garrett GS, Gorstein J, Kupka R, Situma R, Yadav K, Yusufali R, Pandav C, Aaron GJ; Universal Salt Iodization Coverage Survey Team. Household Coverage with Adequately Iodized Salt Varies Greatly between Countries and by Residence Type and Socioeconomic Status within Countries: Results from 10 National Coverage Surveys. J Nutr. 2017 May;147(5):1004S-1014S. doi: 10.3945/jn.116.242586. Epub 2017 Apr 12. Review. PubMed PMID: 28404840; PubMed Central PMCID: PMC5404210.

Background: Household coverage with iodized salt was assessed in 10 countries that implemented Universal Salt Iodization (USI).Objective: The objective of this paper was to summarize household coverage data for iodized salt, including the relation between coverage and residence type and socioeconomic status (SES).Methods: A review was conducted of results from cross-sectional multistage household cluster surveys with the use of stratified probability proportional to size design in Bangladesh, Ethiopia, Ghana, India, Indonesia, Niger, the Philippines, Senegal, Tanzania, and Uganda. Salt iodine content was assessed with quantitative methods in all cases. The primary indicator of coverage was percentage of households that used adequately iodized salt, with an additional indicator for salt with some added iodine. Indicators of risk were SES and residence type. We used 95% CIs to determine significant differences in coverage.Results: National household coverage of adequately iodized salt varied from 6.2% in Niger to 97.0% in Uganda. For salt with some added iodine, coverage varied from 52.4% in the Philippines to 99.5% in Uganda. Coverage with adequately iodized salt was significantly higher in urban than in rural households in Bangladesh (68.9% compared with 44.3%, respectively), India (86.4% compared with 69.8%, respectively), Indonesia (59.3% compared with 51.4%, respectively), the Philippines (31.5% compared with 20.2%, respectively), Senegal (53.3% compared with 19.0%, respectively), and Tanzania (89.2% compared with 57.6%, respectively). In 7 of 8 countries with data, household coverage of adequately iodized salt was significantly higher in high- than in low-SES households in Bangladesh (58.8% compared with 39.7%, respectively), Ghana (36.2% compared with 21.5%, respectively), India (80.6% compared with 70.5%, respectively), Indonesia (59.9% compared with 45.6%, respectively), the Philippines (39.4% compared with 17.3%, respectively), Senegal (50.7% compared with 27.6%, respectively) and Tanzania (80.9% compared with 51.3%, respectively).Conclusions: Uganda has achieved USI. In other countries, access to iodized salt is inequitable. Quality control and regulatory enforcement of salt iodization remain challenging. Notable progress toward USI has been made in Ethiopia and India. Assessing progress toward USI only through household salt does not account for potentially iodized salt consumed through processed foods.

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PMCID: PMC5404210
PMID: 28404840 [Indexed for MEDLINE]

Conflict of interest statement: 3: Author disclosures: JM Knowles, GS Garrett, J Gorstein, R Kupka, R Situma, K Yadav, R Yusufali, C Pandav, and GJ Aaron, no conflicts of interest. R Kupka and R Situma are UNICEF staff members. The opinions and statements in this article are those of the authors and may not reflect official UNICEF policies.

88: Kumar A, Phalak M. Is intra arterial nimodipine really beneficial in vasospasm following aneurysmal subarachnoid hemorrhage? Br J Neurosurg. 2017 Jun;31(3):290. doi: 10.1080/02688697.2017.1297381. Epub 2017 Apr 11. PubMed PMID: 28397570.

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We describe the case of a 30-year-old man with pathological myopia with a phakic intraocular lens (IOL) (Visian ICL V4c model; STAAR, Monrovia, California, USA) in situ having complaints of metamorphopsia in the left eye with documented

myopic foveoschisis on swept-source optical coherence tomography (DRI OCT Triton; Topcon, Tokyo, Japan). The patient underwent pars plana vitrectomy with internal limiting membrane peeling. This report discusses the intraoperative challenges occurring as a result of increased optical aberrations in the presence of a phakic IOL.

DOI: 10.1136/bcr-2016-218224
PMID: 28432184 [Indexed for MEDLINE]

Conflict of interest statement: Competing interests: None declared.

91: Kumar S, Bopanna S, Kedia S, Mouli P, Dhingra R, Padhan R, Kohli M, Chaubey J, Sharma R, Das P, Dattagupta S, Makharia G, Sharma SK, Ahuja V. Evaluation of Xpert MTB/RIF assay performance in the diagnosis of abdominal tuberculosis. Intest Res. 2017 Apr;15(2):187-194. doi: 10.5217/ir.2017.15.2.187. Epub 2017 Apr 27. PubMed PMID: 28522948; PubMed Central PMCID: PMC5430010.

BACKGROUND/AIMS: The use of genetic probes for the diagnosis of pulmonary tuberculosis (TB) has been well described. However, the role of these assays in the diagnosis of intestinal tuberculosis is unclear. We therefore assessed the diagnostic utility of the Xpert Mycobacterium tuberculosis/rifampicin (MTB/RIF) assay, and estimated the prevalence of multidrug-resistant (MDR) TB in the Indian population.
METHODS: Of 99 patients recruited, 37 had intestinal TB; two control groups comprised 43 with Crohn's disease (CD) and 19 with irritable bowel syndrome. Colonoscopy was performed before starting any therapy; mucosal biopsies were subjected to histopathology, acid-fast bacilli staining, Lowenstein-Jensen culture, and nucleic acid amplification testing using the Xpert MTB/RIF assay. Patients were followed up for 6 months to confirm the diagnosis and response to therapy. A composite reference standard was used for diagnosis of TB and assessment of the diagnostic utility of the Xpert MTB/RIF assay.
RESULTS: Of 37 intestinal TB patients, the Xpert MTB/RIF assay was positive in three of 37 (8.1%), but none had MDR-TB. The sensitivity, specificity, positive predictive value, and negative predictive value of the Xpert MTB/RIF assay was 8.1%, 100%, 100%, and, 64.2%, respectively.
CONCLUSIONS: The Xpert MTB/RIF assay has low sensitivity but high specificity for intestinal TB, and may be helpful in endemic tuberculosis areas, when clinicians are faced with difficulty differentiating TB and CD. Based on the Xpert MTB/RIF assay, the prevalence of intestinal MDR-TB is low in the Indian population.

DOI: 10.5217/ir.2017.15.2.187
PMCID: PMC5430010
PMID: 28522948

Conflict of interest statement: Conflict of interest: None.

92: Kumar V, Tewari R, Chandra P, Kumar A. Ultra wide field imaging of coats like response in Leber's congenital amaurosis. Saudi J Ophthalmol. 2017 Apr-Jun;31(2):122-123. doi: 10.1016/j.sjopt.2017.02.007. Epub 2017 Mar 6. PubMed PMID: 28559726; PubMed Central PMCID: PMC5436378.

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paraganglioma of lungs and lymph nodes: Unsuspected diagnosis on EBUS-TBNA. Diagn Cytopathol. 2017 Apr;45(4):327-332. doi: 10.1002/dc.23650. Epub 2016 Nov 30. PubMed PMID: 27902883.

Paragangliomas are tumors that originate from the extra-adrenal chromaffin and nonchromaffin cells of neural crest origin. Lymph node metastases are common, while distant metastases to lung, liver, and bone are rare events and usually occur in the presence of a long standing clinically evident primary tumor. Primary diagnosis of paraganglioma at a metastatic site without a known primary is a diagnostic challenge. We report a case of an adult woman with incidentally detected metastasis to bilateral lungs from an occult carotid body paraganglioma, which presented a cytopathological diagnostic dilemma on EBUS-TBNA from paratracheal lymph nodes. Diagn. Cytopathol. 2017;45:327-332. © 2016 Wiley Periodicals, Inc.

DOI: 10.1002/dc.23650
PMID: 27902883 [Indexed for MEDLINE]

95: Lall M, Kumar P, Choudhary A, Dar L. Oncogenic human papillomavirus types in a high risk population. Indian J Med Microbiol. 2017 Apr-Jun;35(2):316. doi: 10.4103/ijmm.IJMM_16_338. PubMed PMID: 28681833.

96: M P, M S, A S. Prevention of Histological Changes after Colonic Diversion in Rats: An Experimental Study. J Neonatal Surg. 2017 Apr 15;6(2):26. doi: 10.21699/jns.v6i2.511. eCollection 2017 Apr-Jun. PubMed PMID: 28770123; PubMed Central PMCID: PMC5538592.

AIM: To determine the beneficial effects of Glutamine, Psyllium, Short Chain Fatty Acids (SCFA), and Maharishi Amrit Kalash (MAK), in preventing the histological changes after diversion colostomy.
MATERIAL AND METHODS: After ethical clearance, male wistar rats (n=40) underwent diversion colostomy. Rats were divided into five groups of 8 rats each. Each group was given, after diversion colostomy, per rectally, one of the five agents being tested as an enema (3 ml/kg/day). Group I: Normal saline. Group II: Glutamine Group III: Psyllium, Group IV: MAK. Group V: Short chain fatty acid. The rats were euthanised 45 days after performing diversion colostomy. Morphometrical analysis of defunctionalised colon was done. Statistical analysis was done using SSPS statistical analysis software.
RESULTS: On comparison with Group I epithelial cell height and mucosal thickness was significantly higher in Group II. Muscularis externae thickness was significantly higher in Group III on comparison with Group I. Group V had least inflammatory changes.
CONCLUSIONS: Atrophic and inflammatory changes in the diverted colon can be prevented by per rectal administration of Glutamine, Psyllium and Short chain fatty acids.

DOI: 10.21699/jns.v6i2.511
PMCID: PMC5538592
PMID: 28770123

97: Mahajan UB, Chandrayan G, Patil CR, Arya DS, Suchal K, Agrawal YO, Ojha S, Goyal SN. The Protective Effect of Apigenin on Myocardial Injury in Diabetic Rats mediating Activation of the PPAR-Î³ Pathway. Int J Mol Sci. 2017 Apr 4;18(4). pii: E756. doi: 10.3390/ijms18040756. PubMed PMID: 28375162; PubMed Central PMCID: PMC5412341.

We substantiated the role of peroxisome proliferator-activated receptor-γ (PPAR-γ) activation in the protective effect of apigenin against the myocardial infarction (MI) in diabetic rats. Diabetes was induced by intraperitoneal administration of a single dose of streptozotocin (55 mg/kg). The study groups

included diabetic rats receiving vehicle, apigenin (75 mg/kg/day, orally), GW9662 (1 mg/kg/day, intraperitoneally), and a combination of apigenin and GW9662 for 14 days. The MI was induced in all the study groups except the diabetic control group by subcutaneous injection of 100 mg/kg/day of isoproterenol on the two terminal days. The diabetes and isoproterenol-induced MI was evident as a reduction in the maximal positive and negative rate of developed left ventricular pressure and an increase in the left ventricular end-diastolic pressure. The activities of creatine kinase on myocardial bundle (CK-MB) and lactate dehydrogenase (LDH) were also reduced. Apigenin treatment prevented the hemodynamic perturbations, restored the left ventricular function and reinstated a balanced redox status. It protected rats against an MI by attenuating myonecrosis, edema, cell death, and oxidative stress. GW9662, a PPAR-γ antagonist reversed the myocardial protection conferred by apigenin. Further, an increase in the PPAR-γ expression in the myocardium of the rats receiving apigenin reinforces the role of PPAR-γ pathway activation in the cardioprotective effects of apigenin.

DOI: 10.3390/ijms18040756
PMCID: PMC5412341
PMID: 28375162 [Indexed for MEDLINE]

98: Malhotra R, Babhulkar S, Sanjib KB, Clemens A, Dadi A, Iyer R, Kamath S, Mody B, Mutha S, Reddy G, Shah V, Shah V, Shetty N, Tapasvi S, Wadhwa M. Thromboprophylaxis with dabigatran after total hip arthroplasty in Indian patients: AÂ subanalysis of a double-blind, double-dummy, randomized RE-NOVATE II study. Asian J Surg. 2017 Apr;40(2):145-151. doi: 10.1016/j.asjsur.2015.10.007. Epub 2016 Apr 30. PubMed PMID: 27143213.

OBJECTIVE: In the Re-NOVATE II study, oral dabigatran provided thromboprophylaxis after total hip arthroplasty and improved compliance postdischarge in a global population. This article aims to identify trends (if any) in the Indian population.
METHODS: In this prospective, double-blind, double-dummy study, patients scheduled for primary, unilateral, elective total hip arthroplasty were randomized to 220 mg oral dabigatran once daily, starting with a 110 mg half-dose, 1-4 hours after surgery, or subcutaneous enoxaparin 40 mg once daily, starting the evening before surgery. Each group received a placebo of the other study drug. The primary efficacy outcome was the composite of total venous thromboembolism (VTE) and all-cause mortality. Secondary outcome measures were composite of major VTE and VTE-related mortality during the treatment period. The major safety outcome was incidence of bleeding events.
RESULTS: Of the 179 Indian patients randomized, 91 received oral dabigatran and 88 received subcutaneous enoxaparin for 28-35 days. Total VTE and all-cause mortality occurred in 18.7% of patients in the dabigatran group and 13.7% in the enoxaparin group [odds ratio = 1.4 (95% confidence interval 0.6, 3.5)]. Major VTE and VTE-related mortality was numerically lower in the dabigatran group (7.9%) compared with the enoxaparin group (9.9%). Safety outcomes were comparable between both groups.
CONCLUSION: Dabigatran is an effective oral alternative to enoxaparin for thromboprophylaxis as demonstrated by the RE-NOVATE II study global results. Data analyzed in Indian patients indicate comparable effects of dabigatran etexilate for major efficacy and safety outcomes.

DOI: 10.1016/j.asjsur.2015.10.007
PMID: 27143213

99: Mehra S, Kumar M, Manchanda M, Singh R, Thakur B, Rani N, Arava S, Narang R, Arya DS, Chauhan SS. Clinical significance of cathepsin L and cathepsin B in dilated cardiomyopathy. Mol Cell Biochem. 2017 Apr;428(1-2):139-147. doi: 10.1007/s11010-016-2924-6. Epub 2017 Jan 10. PubMed PMID: 28074340.

Dysregulated expression of lysosomal cysteine cathepsins is associated with adverse cardiac remodeling, a characteristic of several cardiovascular diseases. However, the information regarding the role of cysteine cathepsin L (CTSL) and cathepsin B (CTSB) in dilated cardiomyopathy (DCM) is limited. The present study was aimed to investigate the expression of CTSL and CTSB in animal model of doxorubicin (doxo)-induced cardiomyopathy as well as in peripheral blood samples of DCM patients. Cardiac tissue sections from doxo-treated and control rats were used to study the expression of CTSL and CTSB by enzyme assay and immunohistochemistry (IHC). Peripheral blood mononuclear cells (PBMCs) isolated from DCM patients (n = 29) along with age-matched healthy controls (n = 28) were used to assay enzymatic activity of these cathepsins. Activities of these proteases were further correlated with echocardiographic parameters of DCM patients. A significant increase in CTSL activity and protein expression was observed with no changes in CTSB levels in doxo-treated rats as compared to controls. We also observed a drastic increase in the functional activity of cathepsin L+cathepsin B (CTSL+B), CTSL, and CTSB in DCM patients compared to controls ($p \leq 0.001$). Increased levels of these proteases exhibited a statistically significant correlation with reduced left ventricular ejection fraction (LVEF) in DCM patients ($\rho = -0.58$, $p = 0.01$). For the first time, this study demonstrates a correlation between increased expression of CTSL and CTSB in PBMCs with severity of left ventricular dysfunction in DCM patients. Thus, these proteases may serve as blood-based biomarker of DCM and prove useful in its management.

DOI: 10.1007/s11010-016-2924-6
PMID: 28074340 [Indexed for MEDLINE]

100: Mishra A, Pandey RK, Sharma A, Darlong V, Punj J, Goswami D, Sinha R, Rewari V, Chandralekha C, Bansal VK. Is perioperative administration of 5% dextrose effective in reducing the incidence of PONV in laparoscopic cholecystectomy?: A randomized control trial. J Clin Anesth. 2017 Aug;40:7-10. doi: 10.1016/j.jclinane.2017.03.048. Epub 2017 Apr 12. PubMed PMID: 28625451.

STUDY OBJECTIVE: To compare the incidence of postoperative nausea and vomiting (PONV) during perioperative administration of 5% dextrose and normal saline in laparoscopic cholecystectomy.
DESIGN: Prospective, randomized, double-blind trial.
SETTING: Operating rooms in a tertiary care hospital of Northern India.
PATIENTS: One hundred patients with American Society of Anesthesiologists status I to II undergoing laparoscopic cholecystectomy were enrolled in this study.
INTERVENTIONS: Patients were randomized into two groups [normal saline (NS) group and 5% dextrose (D) group]. Both the groups received Ringer acetate (Sterofundin ISO) intravenously as a maintenance fluid during intraoperative period. Besides this, patients of group NS received 250ml of 0.9% normal saline and patients of group D received 5% dextrose @ 100ml/h started at the time when gall bladder was taken out. It was continued in the postoperative period with the same rate till it gets finished.
MEASUREMENTS: Incidence of PONV, Apfel score, intraoperative opioids used and consumption of rescue antiemetics.
MAIN RESULTS: Demographic data was statistically similar. Out of total 100 patients, 47 patients (47%) had PONV. In group D, 14 patients (28%) had PONV while in group NS, 33 patients (66%) had PONV within 24h of surgery (p value 0.001). The incidence of PONV was reduced by 38% in group D which is significantly lower when compared with that of group NS (p value 0.001). The consumption of single dose of rescue antiemetics in group D was also reduced by 26% when compared to that of group NS (p value 0.002).
CONCLUSIONS: Perioperative administration of 5% dextrose in patients undergoing laparoscopic surgery can reduce PONV significantly and even if PONV occurs, the quantity of rescue antiemetics to combat PONV is also reduced significantly.

DOI: 10.1016/j.jclinane.2017.03.048

PMID: 28625451

101: Mishra A, Das B, Nath M, Iyer S, Kesarwani A, Bhattacharjee J, Arindkar S, Sahay P, Jain K, Sahu P, Sinha P, Velpandian T, Nagarajan P, Upadhyay P. A novel immunodeficient NOD.SCID-rd1 mouse model of retinitis pigmentosa to investigate potential therapeutics and pathogenesis of retinal degeneration. Biol Open. 2017 Apr 15;6(4):449-462. doi: 10.1242/bio.021618. PubMed PMID: 28258056; PubMed Central PMCID: PMC5399550.

Retinitis pigmentosa (RP) is a common retinal degeneration disease caused by mutation in any gene of the photo transduction cascade and results in photoreceptor dystrophy. Over decades, several animal models have been used to address the need for the elucidation of effective therapeutics and factors regulating retinal degeneration to prohibit or renew the damaged retina. However, controversies over the immune privilege of retina during cell transplantation and the role of immune modulation during RP still remain largely uninvestigated because of the lack of suitable animal models. Here, we have developed an immunocompromised mouse model, NOD.SCID-rd1, for retinitis pigmentosa (RP) by crossing CBA/J and NOD SCID mice and selecting homozygous double mutant animals for further breeding. Characterization of the newly developed RP model indicates a similar retinal degeneration pattern as CBA/J, with a decreased apoptosis rate and rhodopsin loss. It also exhibits loss of T cells, B cells and NK cells. The NOD.SCID-rd1 model is extremely useful for allogenic and xenogenic cell-based therapeutics, as indicated by the higher cell integration capacity post transplantation. We dissect the underlying role of the immune system in the progression of RP and the effect of immune deficiency on immune privilege of the eye using comparative qPCR studies of this model and the immune-competent RP model.

DOI: 10.1242/bio.021618
PMCID: PMC5399550
PMID: 28258056

102: Mishra B, Joshi M. Avoidance of 'Mishra Phenomenon' Prevents Technical Failure of Hepatic Artery Angioembolization following Failed Perihepatic Packing in Traumatic Liver Injury. Bull Emerg Trauma. 2017 Apr;5(2):135-139. PubMed PMID: 28508003; PubMed Central PMCID: PMC5406186.

103: Mishra B, Joshi MK, Kumar S, Kumar A, Gupta A, Rattan A, Sagar S, Singhal M, Misra MC. Innocuous cardiac gunshot that proved fatal: A bitter lesson learned. Chin J Traumatol. 2017 Apr;20(2):122-124. doi: 10.1016/j.cjtee.2016.05.006. Epub 2017 Mar 1. PubMed PMID: 28330801; PubMed Central PMCID: PMC5392712.

The management of hemodynamically normal patients with retained intra-pericardial foreign body remains a matter of conjecture. The available literature supports non-operative management of such innocuous foreign bodies. We report our experience of a hemodynamically normal patient with a retained intra-pericardial pellet from a firearm injury. He initially received successful non-operative management but developed fatal hemopericardium 21 days after injury. In this paper, we discussed the pitfalls in the management of such injuries in light of the available literature and summarized the clinical experience.

DOI: 10.1016/j.cjtee.2016.05.006
PMCID: PMC5392712
PMID: 28330801 [Indexed for MEDLINE]

104: Mishra PR, Aggarwal P, Nayer J, Ekka M, Bhoi S. USG guided cardiopulmonary resuscitation:time to correct reversible causes. Resuscitation. 2017 Apr;113:e1.

doi: 10.1016/j.resuscitation.2016.08.035. Epub 2017 Jan 18. PubMed PMID: 28109999.

105: Misra A, Bakhshi S, Kumar R, Chopra A. Pediatric plasmablastic lymphoma: Diagnostic and therapeutic dilemma. Indian J Pathol Microbiol. 2017 Apr-Jun;60(2):303-304. doi: 10.4103/IJPM.IJPM_375_16. PubMed PMID: 28631667.

106: Misra A, Tandon N, Ebrahim S, Sattar N, Alam D, Shrivastava U, Narayan KM, Jafar TH. Diabetes, cardiovascular disease, and chronic kidney disease in South Asia: current status and future directions. BMJ. 2017 Apr 11;357:j1420. doi: 10.1136/bmj.j1420. Review. PubMed PMID: 28400361.

107: Mitra R, Rath GP, Dube SK, Hasija N. Anesthetic management in a patient of autosomal dominant polycystic kidney disease with end stage renal disease undergoing endovascular coiling for multiple intracranial aneurysms. J Anaesthesiol Clin Pharmacol. 2017 Apr-Jun;33(2):256-258. doi: 10.4103/0970-9185.173318. PubMed PMID: 28781456; PubMed Central PMCID: PMC5520603.

A 27-year-old woman of autosomal dominant polycystic kidney disease presented with multiple intracranial aneurysms at anterior communicating artery and left middle cerebral artery bifurcation. She was undergoing hemodialysis every alternate day and was waiting for a renal transplantation. Endovascular coiling of both these aneurysms was performed under general endotracheal anesthesia. During the procedure special precaution was taken with regard to intra-procedural fluid management and maintenance of cerebral perfusion pressure. The procedure remained uneventful during which a stable hemodynamics was maintained. In this report, the implication of intraprocedural fluid infusion by the neuroradiologist its possible influence on overall anesthetic management has been described.

DOI: 10.4103/0970-9185.173318
PMCID: PMC5520603
PMID: 28781456

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

108: Mittal S, Mohan A, Madan K. Endobronchial ultrasound elastography for the differentiation of benign and malignant lymph nodes. Respirology. 2017 Jul;22(5):1037-1038. doi: 10.1111/resp.13062. Epub 2017 Apr 26. PubMed PMID: 28445925.

109: Mohan VK, Nisa N. Importance of Sonography for Guiding Central Venous Cannulation in Patients with Neurofibromatosis. Turk J Anaesthesiol Reanim. 2017 Jun;45(3):169-171. doi: 10.5152/TJAR.2017.92259. Epub 2017 Apr 27. PubMed PMID: 28752008; PubMed Central PMCID: PMC5512396.

A 15-year-old boy with neurofibromatosis type 1 (NF1) was referred to us for central venous catheter insertion, and on ultrasound of the neck, he was found to have extensive involvement of the brachial plexus due to the nerve sheath tumour. Multiple hypoechogenic lesions resembling the internal jugular vein and internal carotid artery were visualised and could be differentiated from the vessels by Doppler ultrasound. The importance of analyzing sonographic images of nerve sheath tumours, which can mimic blood vessels, and the importance of Doppler ultrasound for guiding central venous catheters in such patients to avoid nerve injury are discussed in this case report.

DOI: 10.5152/TJAR.2017.92259
PMCID: PMC5512396
PMID: 28752008

Conflict of interest statement: Conflict of Interest: No conflict of interest was declared by the authors.

110: Mukherjee A, Bal C, Tripathi M, Das CJ, Shamim SA. Cerebral Toxoplasmosis Masquerading Cns Lymphoma on FDG PET-CT in Post Renal Transplant Patient. Indian J Nucl Med. 2017 Apr-Jun;32(2):148-149. doi: 10.4103/0972-3919.202254. PubMed PMID: 28533649; PubMed Central PMCID: PMC5439199.

20 year old post renal transplant patient developed recurrent episodes of seizure. MRI revealed focal lesion in right parieto-occipital lobe with perilesional edema. FDG PET-CT revealed multiple hypermetabolic lesions in bilateral cerebral hemisphere. Subsequent biopsy from the lesion demonstrated bradyzoites of Toxoplasma gondii with inflammatory cells and thereby, a confirmatory diagnosis of cerebral toxoplasmosis was made. This case demonstrates the fact that increased FDG uptake in cerebral lesions in post transplant patient should be interpreted with caution and confirmed with histopathological correlation.

DOI: 10.4103/0972-3919.202254
PMCID: PMC5439199
PMID: 28533649

Conflict of interest statement: There are no conflicts of interest

111: Mukherjee A, Bal C, Tripathi M, Das CJ, Shamim SA. F-18-Fluorodeoxyglucose Positron Emission Tomography/Computed Tomography Appearance of Extramedullary Hematopoesis in a Case of Primary Myelofibrosis. Indian J Nucl Med. 2017 Apr-Jun;32(2):143-144. doi: 10.4103/0972-3919.202235. PubMed PMID: 28533647; PubMed Central PMCID: PMC5439193.

A 44-year-old female with known primary myelofibrosis presented with shortness of breath. High Resolution Computed Tomography thorax revealed large heterogeneously enhancing extraparenchymal soft tissue density mass involving bilateral lung fields. F-18-fluorodeoxyglucose (FDG) positron emission tomography/computed tomography revealed mildly FDG avid soft tissue density mass with specks of calcification involving bilateral lung fields, liver, and spleen. Subsequent histopathologic evaluation from the right lung mass was suggestive of extramedullary hematopoesis.

DOI: 10.4103/0972-3919.202235
PMCID: PMC5439193
PMID: 28533647

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

112: Nagori SA, Jose A, Bhutia O, Roychoudhury A. Large pediatric maxillary dentigerous cysts presenting with sinonasal and orbital symptoms: A case series. Ear Nose Throat J. 2017 Apr-May;96(4-5):E29-E34. PubMed PMID: 28489242.

Dentigerous cysts are benign odontogenic cysts associated with the crowns of unerupted, embedded, or impacted teeth. Most of them are associated with mandibular third molars, followed by maxillary third molars and canines. They are usually asymptomatic, and rarely do they grow extensively and compress the adjacent anatomic structures. We report 5 cases of extensive maxillary dentigerous cysts presenting with sinonasal and orbital symptoms. A literature review for similar presentations of dentigerous cysts has demonstrated 21 cases. Recognition of the extensive growth potential of the dentigerous cyst, diagnosing it with its unusual presentation, and appropriate management are discussed in this article.

PMID: 28489242

113: Narain P, Gomes J, Bhatia R, Singh I, Vivekanandan P. C9orf72 hexanucleotide repeat expansions and Ataxin 2 intermediate length repeat expansions in Indian patients with amyotrophic lateral sclerosis. Neurobiol Aging. 2017 Aug;56:211.e9-211.e14. doi: 10.1016/j.neurobiolaging.2017.04.011. Epub 2017 Apr 26. PubMed PMID: 28527524.

Repeat expansions in the chromosome 9 open reading frame 72 (C9orf72) gene have been recognized as a major contributor to amyotrophic lateral sclerosis (ALS) and frontotemporal dementia in the Caucasian population. Intermediate length repeat expansions of CAG (polyQ) repeat in the ATXN2 gene have also been reported to increase the risk of developing ALS in North America and Europe. We screened 131 ALS patients and 127 healthy controls from India for C9orf72 and ATXN2 repeat expansions. We found pathogenic hexanucleotide expansions in 3 of the 127 sporadic ALS patients, in 1 of the 4 familial ALS patients, and in none of the healthy controls. In addition, our findings suggest that the 10 base-pair deletion that masks detection of C9orf72 repeat expansion does not explain the low frequency of this repeat expansion among Indian ALS patients. Intermediate length polyQ expansions (27Qs-32Qs) in the ATXN2 gene were detected in 6 of the 127 sporadic ALS patients and 2 of the 127 of the healthy controls. Long ATXN2 polyQ repeats (≥33Qs) were not present in any of the ALS patients or controls. Our findings highlight the need for large-scale multicenter studies on Indian ALS patients to better understand the underlying genetic causes.

DOI: 10.1016/j.neurobiolaging.2017.04.011
PMID: 28527524

114: Narula J, Kapoor PM, Balasubramanium U, Kiran U. Prosthetic Mitral Valve Strut Masquerading as Left Ventricular Outflow Tract Obstruction: 3D Transesophageal Echocardiography Comes to the Rescue. J Cardiothorac Vasc Anesth. 2017 Apr 19. pii: S1053-0770(17)30424-X. doi: 10.1053/j.jvca.2017.04.032. [Epub ahead of print] PubMed PMID: 28939319.

115: Noh DY, Roh JK, Kim YH, Yoshida K, Baba H, Samson-Fernando MC, Misra S, Aziz Z, Umbas R, P Singh Y, Shu Kam Mok T, Yang HK, Akaza H. Symposium: "Oncology Leadership in Asia". Cancer Res Treat. 2017 Apr;49(2):283-291. doi: 10.4143/crt.2017.090. Epub 2017 Mar 9. PubMed PMID: 28279063; PubMed Central PMCID: PMC5398385.

The symposium on "Oncology Leadership in Asia" was held as part of the official program of the 42nd Annual Meeting of the Korean Cancer Association with International Cancer Conference. Given the increasing incidence of cancer in all countries and regions of Asia, regardless of developmental stage, and also in light of the recognized need for Asian countries to enhance collaboration in cancer prevention, research, treatment and follow-up, the symposium was held with the aim of bringing together oncology specialists from eight countries and regions in Asia to present the status in their own national context and discuss the key challenges and requirements in order to establish a greater Asian presence in the area of cancer control and research. The task of bringing together diverse countries and regions is made all the more urgent in that while Asia now accounts for more than half of all new cancer cases globally, clinical guidelines are based predominantly on practices adopted in Western countries, which may not be optimized for unique ethnic, pharmacogenomic and cultural characteristics in Asia. Recognizing the need for Asia to better gather information and data for the compilation of Asia-specific clinical guidelines, the participants discussed the current status in Asia in the national and regional contexts and identified future steps towards integrated and collaborative initiatives in Asia. A key outcome of the symposium was a proposal to combine and integrate the activities of existing pan-Asian societies, including the Asian Pacific Federation of Organizations for Cancer Research and

Control (APFOCC) and Asian Clinical Oncology Society (ACOS). Further proposals included the expansion of pan-Asian society membership to include individuals and the essential need to encourage the participation of young researchers in order to ensure self-sustainability of cancer control efforts in the future.

DOI: 10.4143/crt.2017.090
PMCID: PMC5398385
PMID: 28279063

116: Panda SP, Chinnaswamy G, Vora T, Prasad M, Bansal D, Kapoor G, Radhakrishnan V, Agarwala S, Laskar S, Arora B, Kaur T, Rath GK, Bakhshi S. Diagnosis and Management of Rhabdomyosarcoma in Children and Adolescents: ICMR Consensus Document. Indian J Pediatr. 2017 May;84(5):393-402. doi: 10.1007/s12098-017-2315-3. Epub 2017 Apr 5. PubMed PMID: 28378141.

Rhabdomyosarcoma (RMS) is a highly malignant tumor which is thought to originate from the pluripotent mesenchyme. It is the most common soft-tissue sarcoma of childhood. This review article summarizes the recent and older published literature and gives an overview of management of RMS in children. RMS can arise in a wide variety of primary sites, some of which are associated with specific patterns of local invasion, regional lymph nodal spread, therapeutic response and long term outcome, hence requiring physicians to be familiar with site-specific staging and treatment details. Most common primary sites include the head and neck region, genitourinary tract, and extremities. Prognosis for children and adolescents with RMS has recently improved substantially, especially for patients with local or locally extensive disease because of the development of multi-modal therapy incorporating surgery, dose-intensive combination chemotherapy, and radiation therapy. Despite aggressive approaches the outcome for patients who present with metastatic disease remains unsatisfactory. Clinical trials are ongoing to reduce toxicity and improve outcomes of such patients; newer agents in combination are being investigated.

DOI: 10.1007/s12098-017-2315-3
PMID: 28378141

117: Pandey RK, Bhalla AP, Garg R, Batra M. Anesthetic management of a case of achalasia cardia with mega-esophagus causing intraoperative cardio-respiratory compromise. J Anaesthesiol Clin Pharmacol. 2017 Apr-Jun;33(2):271-273. doi: 10.4103/0970-9185.168193. PubMed PMID: 28781467; PubMed Central PMCID: PMC5520614.

118: Parida GK, Roy SG, Kumar R. FDG-PET/CT in Skeletal Muscle: Pitfalls and Pathologies. Semin Nucl Med. 2017 Jul;47(4):362-372. doi: 10.1053/j.semnuclmed.2017.02.003. Epub 2017 Apr 20. Review. PubMed PMID: 28583276.

FDG-PET/CT is an integral part of modern-day practice of medicine. By detecting increased cellular metabolism, FDG-PET/CT can help us detect infection, inflammatory disorders, or tumors, and also help us in prognostication of patients. However, one of the most important challenges is to correctly differentiate the abnormal uptake that is potentially pathologic from the physiological uptake. So while interpreting a PET/CT, one must be aware of normal biodistribution and different physiological variants of FDG uptake. Skeletal muscles constitute a large part of our body mass and one of the major users of glucose. Naturally, they are often the site of increased FDG uptake in a PET study. We as a nuclear medicine physician must be aware of all the pitfalls of increased skeletal muscle uptake to differentiate between physiological and pathologic causes. In this review, we have discussed the different causes and patterns of physiological FDG uptake in skeletal muscles. This knowledge of normal physiological variants of FDG uptake in the skeletal muscles is essential for differentiating pathologic uptake from the physiological ones. Also, we

reviewed the role of FDG-PET/CT in various benign and malignant diseases involving skeletal muscle.

DOI: 10.1053/j.semnuclmed.2017.02.003
PMID: 28583276

119: Parmar A, Patil V, Sarkar S. Ethical management of substance use disorders: the Indian scenario. Indian J Med Ethics. 2017 Apr 4;-(-):1-5. [Epub ahead of print] PubMed PMID: 28433964.

Substance use disorders are among the most prevalent and emergent public health problems in India. The treatment of individuals with these disorders is associated with many ethical dilemmas. Due to the pervasiveness of substance use disorders, the majority of mental health professionals working in the area of addiction medicine face several ethical dilemmas. When discussing substance use disorders, it must be borne in mind that there are important differences between India and the western countries in terms of the social and cultural aspects, as well as the legislative framework and healthcare delivery system. In this paper, we discuss the common ethical dilemmas that practitioners of addiction medicine face when dealing with patients with substance use disorders. We use the principlist approach defined by the four ethics principles - autonomy, beneficence, nonmaleficence and justice - to deliberate upon these dilemmas and how they may be resolved. Further, we emphasise the need to sensitise practitioners to the importance of giving due consideration to the ethical aspects in their clinical work..

PMID: 28433964

120: Patel SA, Deepa M, Shivashankar R, Ali MK, Kapoor D, Gupta R, Lall D, Tandon N, Mohan V, Kadir MM, Fatmi Z, Prabhakaran D, Narayan KMV. Comparison of multiple obesity indices for cardiovascular disease risk classification in South Asian adults: The CARRS Study. PLoS One. 2017 Apr 27;12(4):e0174251. doi: 10.1371/journal.pone.0174251. eCollection 2017. PubMed PMID: 28448582; PubMed Central PMCID: PMC5407781.

BACKGROUND: We comparatively assessed the performance of six simple obesity indices to identify adults with cardiovascular disease (CVD) risk factors in a diverse and contemporary South Asian population.
METHODS: 8,892 participants aged 20-60 years in 2010-2011 were analyzed. Six obesity indices were examined: body mass index (BMI), waist circumference (WC), waist-height ratio (WHtR), waist-hip ratio (WHR), log of the sum of triceps and subscapular skin fold thickness (LTS), and percent body fat derived from bioelectric impedance analysis (BIA). We estimated models with obesity indices specified as deciles and as continuous linear variables to predict prevalent hypertension, diabetes, and high cholesterol and report associations (prevalence ratios, PRs), discrimination (area-under-the-curve, AUCs), and calibration (index $\chi 2$). We also examined a composite unhealthy cardiovascular profile score summarizing glucose, lipids, and blood pressure.
RESULTS: No single obesity index consistently performed statistically significantly better than the others across the outcome models. Based on point estimates, WHtR trended towards best performance in classifying diabetes (PR = 1.58 [1.45-1.72], AUC = 0.77, men; PR = 1.59 [1.47-1.71], AUC = 0.80, women) and hypertension (PR = 1.34 [1.26,1.42], AUC = 0.70, men; PR = 1.41 [1.33,1.50], AUC = 0.78, women). WC (mean difference = 0.24 SD [0.21-0.27]) and WHtR (mean difference = 0.24 SD [0.21,0.28]) had the strongest associations with the composite unhealthy cardiovascular profile score in women but not in men.
CONCLUSIONS: WC and WHtR were the most useful indices for identifying South Asian adults with prevalent diabetes and hypertension. Collection of waist circumference data in South Asian health surveys will be informative for population-based CVD surveillance efforts.

DOI: 10.1371/journal.pone.0174251
PMCID: PMC5407781
PMID: 28448582 [Indexed for MEDLINE]

121: Patterson V, Samant S, Jain Y, Singh MB. Computer-naÃ¯ve health workers can use a tablet-based epilepsy diagnosis app. Epilepsy Behav. 2017 May;70(Pt A):274-275. doi: 10.1016/j.yebeh.2017.03.011. Epub 2017 Apr 10. PubMed PMID: 28408283.

122: Poudel RR, Tiwari V, Kumar VS, Bakhshi S, Gamanagatti S, Khan SA, Rastogi S. Factors associated with local recurrence in operated osteosarcomas: A retrospective evaluation of 95 cases from a tertiary care center in a resource challenged environment. J Surg Oncol. 2017 Apr;115(5):631-636. doi: 10.1002/jso.24602. Epub 2017 Apr 25. PubMed PMID: 28444770.

BACKGROUND AND OBJECTIVES: Local control of disease is one of the main goals of osteosarcoma management. We conducted a retrospective evaluation of 95 operated cases of osteosarcoma over 7 years to know about the factors associated with local recurrence in resource-challenged environment of the developing world.
METHODS: The factors which were evaluated and compared between local recurrence and non-local recurrence groups included demographic profile, site of tumor, whether biopsy done outside, type of surgery (limb salvage or amputation), presence of pathological fracture, vicinity of neurovascular bundle, tumor volume, histological subtype, chemotherapy induced necrosis, surgical margins, and delay in surgery. The time to local recurrence after surgery was also noted in the local recurrence group.
RESULTS: At a mean follow-up of 2.8 years, biopsy done from outside the treating center and delay in surgery after completion of neo-adjuvant chemotherapy emerged as significant risk factors for local recurrence. Most of the local recurrences (80%) occurred within 12 months of the primary surgery.
CONCLUSIONS: Lack of financial resources and availability of few tertiary care centers dealing with musculoskeletal oncology in the developing countries, lead to overburden with a long waiting list for tumor surgery making the scenario different from the Western world.

DOI: 10.1002/jso.24602
PMID: 28444770 [Indexed for MEDLINE]

123: Prabhakaran D, Roy A, Praveen PA, Ramakrishnan L, Gupta R, Amarchand R, Kondal D, Singh K, Sharma M, Shukla DK, Tandon N, Reddy KS, Krishnan A. 20-Year Trend of Cardiovascular Disease Risk Factors: Urban and Rural National Capital Region of Delhi, India. Glob Heart. 2017 Apr 11. pii: S2211-8160(16)30787-6. doi: 10.1016/j.gheart.2016.11.004. [Epub ahead of print] PubMed PMID: 28411147.

BACKGROUND: The World Health Organization and the Government of India have set targets to reduce burden of noncommunicable diseases. Information on population level trend of risk factors would provide insights regarding the possibility of achieving them.
OBJECTIVE: This study aimed to determine the population trends of cardiovascular disease risk factors in the National Capital Region of Delhi over 2 decades.
METHODS: Two representative cross-sectional surveys were conducted among men and women ages 35 to 64 years, residing in the urban and rural areas (survey 1 [1991 to 1994] and survey 2 [2010 to 2012]) using similar methodology. The urban sample was collected from the Municipal Corporation of Delhi, and the rural sample was from the Ballabgarh block of the adjoining state of Haryana. A total of 3,048 and 2,052 subjects of urban areas and 2,487 and 1,917 subjects of rural areas were surveyed in surveys 1 and 2, respectively. Behavioral (smoking and alcohol use), physical (overweight, abdominal obesity, and raised blood pressure), and biochemical risk factors (raised fasting blood glucose and raised total cholesterol) were measured using standard tools.

RESULTS: Urban and rural prevalence of overweight, alcohol use, raised blood pressure, and blood glucose increased with increases in age-standardized mean body mass index (urban: 24.4 to 26.0 kg/m(2); rural: 20.2 to 23.0 kg/m(2)), systolic blood pressure (urban: 121.2 to 129.8 mm Hg; rural: 114.9 to 123.1 mm Hg), diastolic blood pressure (urban: 74.3 to 83.9 mm Hg; rural: 73.1 to 82.3 mm Hg), and fasting glucose (urban: 101.2 to 115.3 mg/dl; rural: 83.9 to 103.2 mg/dl). The smoking prevalence increased in the rural male population. Raised total cholesterol declined in urban and increased significantly in rural populations.
CONCLUSIONS: The study indicates an overall worsening of population levels of all cardiovascular disease risk factors in National Capital Region over past 20 years, though some signs of stabilization and reversal are seen in urban Delhi.

DOI: 10.1016/j.gheart.2016.11.004
PMID: 28411147

124: Pramanik R, Gogia A, Malik PS, Gogi R. Metastatic Primary Angiosarcoma of the Breast: Can We Tame It the Metronomic Way. Indian J Med Paediatr Oncol. 2017 Apr-Jun;38(2):228-231. doi: 10.4103/ijmpo.ijmpo_156_16. PubMed PMID: 28900339; PubMed Central PMCID: PMC5582568.

Primary angiosarcoma of the breast is a highly aggressive but rare malignant neoplasm. Palliative chemotherapy with different agents and combinations has been tried in the metastatic setting with poor results. We present the case of a young woman with this disease describing her aggressive course. We used a metronomic combination of oral drugs due to her poor general condition and achieved disease stabilization although not durable.

DOI: 10.4103/ijmpo.ijmpo_156_16
PMCID: PMC5582568
PMID: 28900339

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

125: Prasad M, Vora T, Agarwala S, Laskar S, Arora B, Bansal D, Kapoor G, Chinnaswamy G, Radhakrishnan V, Kaur T, Rath GK, Bakhshi S. Management of Wilms Tumor: ICMR Consensus Document. Indian J Pediatr. 2017 Jun;84(6):437-445. doi: 10.1007/s12098-017-2305-5. Epub 2017 Apr 3. Review. PubMed PMID: 28367612.

Wilms tumor (WT) is the most common renal tumor of childhood. Although multidisciplinary care including surgery, chemotherapy and radiotherapy have greatly improved the survival rates in WT, there is a scope for further improvement in India and other resource-poor settings. In resource-limited settings, the majority of patients present with large tumors, which may either be unresectable or risky to resect; making preoperative chemotherapy followed by delayed surgery the preferred approach. Histology and staging are used for risk stratification. The imaging procedure of choice is Contrast Enhanced CT scan (CECT) of thorax/ abdomen and pelvis, which is to be done at presentation, as well as for re-evaluation. Surgery is the cornerstone of treatment in WT and Radical Nephroureterectomy and Lymph node sampling is the procedure of choice, to be performed at week 5 in Non Metastatic WT and week 7 in Metastatic WT. WT is an extremely chemosensitive and radiosensitive tumor. Preoperative chemotherapy for Non Metastatic WT consists of 4 wk of Vincristine /Actinomycin and 6 wk of Vincristine /Actinomycin/ Adriamycin for Metastatic WT, with post-operative chemotherapy depending on stage and histology. Radiation therapy is recommended mainly in Stage III and Stage IV WT, with other indications given in the text. Other recommendations, such as treatment of WT in special situations and for supportive care are also detailed in the text.

DOI: 10.1007/s12098-017-2305-5

PMID: 28367612

126: Prasad P, Mittal SA, Chongtham J, Mohanty S, Srivastava T. Hypoxia-Mediated Epigenetic Regulation of Stemness in Brain Tumor Cells. Stem Cells. 2017 Jun;35(6):1468-1478. doi: 10.1002/stem.2621. Epub 2017 Apr 24. PubMed PMID: 28376560.

Activation of pluripotency regulatory circuit is an important event in solid tumor progression and the hypoxic microenvironment is known to enhance the stemness feature of some cells. The distinct population of cancer stem cells (CSCs)/tumor initiating cells exist in a niche and augment invasion, metastasis, and drug resistance. Previously, studies have reported global hypomethylation and site-specific aberrant methylation in gliomas along with other epigenetic modifications as important contributors to genomic instability during glioma progression. Here, we have demonstrated the role of hypoxia-mediated epigenetic modifications in regulating expression of core pluripotency factors, OCT4 and NANOG, in glioma cells. We observe hypoxia-mediated induction of demethylases, ten-eleven-translocation (TET) 1 and 3, but not TET2 in our cell-line model. Immunoprecipitation studies reveal active demethylation and direct binding of TET1 and 3 at the Oct4 and Nanog regulatory regions. Tet1 and 3 silencing assays further confirmed induction of the pluripotency pathway involving Oct4, Nanog, and Stat3, by these paralogues, although with varying degrees. Knockdown of Tet1 and Tet3 inhibited the formation of neurospheres in hypoxic conditions. We observed independent roles of TET1 and TET3 in differentially regulating pluripotency and differentiation associated genes in hypoxia. Overall, this study demonstrates an active demethylation in hypoxia by TET1 and 3 as a mechanism of Oct4 and Nanog overexpression thus contributing to the formation of CSCs in gliomas. Stem Cells 2017;35:1468-1478.

DOI: 10.1002/stem.2621
PMID: 28376560

127: Pratap H, Hottigoudar SY, Nichanahalli KS, Chand P. Assessment of Sperm Deoxyribose Nucleic Acid Fragmentation Using Sperm Chromatin Dispersion Assay. J Pharmacol Pharmacother. 2017 Apr-Jun;8(2):45-49. doi: 10.4103/jpp.JPP_187_16. PubMed PMID: 28706397; PubMed Central PMCID: PMC5497398.

The integrity of sperm deoxyribose nucleic acid (DNA) is one of the determinants that ensure normal fertilization, implantation, pregnancy, and the generation of a healthy progeny. Assessment of sperm DNA fragmentation has gained importance as a tool to provide significant information regarding sperm quality, and it can independently predict sperm fertilizing potential. The sperm chromatin dispersion (SCD) assay is one of the available techniques to detect sperm DNA damage with results comparable to the gold standard - Sperm Chromatin Structure Assay. We present here a detailed methodology of an alkaline modification of SCD that can be carried out with minimal laboratory equipment. The SCD assay is a modified halo assay that utilizes chemical methods to demonstrate sperm DNA fragmentation. It involves the embedding of sperms in an agarose medium followed by exposure to alkaline denaturation and deproteinization. The results are interpreted under a light microscope. A visual scoring system is utilized to differentiate the sperms with possible DNA fragmentation from those without fragmented DNA and to determine the sperm DNA fragmentation index (SDFI) % for each semen sample. The SDFI % is directly proportional to the quality of sperm. The SCD assay is a simple, cost-effective, and reliable technique that can detect sperm DNA fragmentation, thus providing information regarding sperm functional quality and reproductive capacity. It is of significance in clinical and research areas of andrology and reproductive medicine, toxicology, and pharmacotherapeutics.

DOI: 10.4103/jpp.JPP_187_16
PMCID: PMC5497398
PMID: 28706397

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

128: Pujari A, Chawla R, Singh R, Mehta A. Ultrasound-B scan: an indispensable tool for diagnosing ocular cysticercosis. BMJ Case Rep. 2017 Apr 21;2017. pii: bcr-2017-219346. doi: 10.1136/bcr-2017-219346. PubMed PMID: 28432168.

129: Pujari A, Bajaj MS, Basheer S, Bhaskaran K. Rapidly enlarging acquired capillary hemangioma of the eyelid. BMJ Case Rep. 2017 Apr 11;2017. pii: bcr-2017-219777. doi: 10.1136/bcr-2017-219777. PubMed PMID: 28400395.

130: Punia H, Gathwala G, Dhaulakhandi DB, Aamir M. Diagnosis of neonatal sepsis using 16S rRNA polymerase chain reaction. Trop Doct. 2017 Oct;47(4):336-339. doi: 10.1177/0049475517701875. Epub 2017 Apr 14. PubMed PMID: 28409532.

The gold standard for detecting bacterial sepsis is blood culture. However, the sensitivity of blood culture is low and the results take 48-72 h. Molecular assays for the detection of bacterial DNA permit early detection of a bacterial cause as the turnaround time is 6-8 h. We undertook an evaluation of the performance of universal bacterial primer (16S rRNA) polymerase chain reaction (PCR) in the diagnosis of neonatal sepsis at a tertiary care medical college teaching hospital. 16S rRNA PCR was positive in all cases of blood culture proven sepsis. PCR revealed 95.6% sensitivity, 100% specificity, 100% positive predictive value and 91.2% negative predictive value and so appears to be a useful tool for the early diagnosis of bacterial neonatal sepsis.

DOI: 10.1177/0049475517701875
PMID: 28409532

131: Pushker N, Bajaj MS, Singh AK, Lokdarshi G, Bakhshi S, Kashyap S. Intra-ocular medulloepithelioma as a masquerade for PHPV and Panophthalmitis: a Diagnostic Dilemma. Saudi J Ophthalmol. 2017 Apr-Jun;31(2):109-111. doi: 10.1016/j.sjopt.2017.02.004. Epub 2017 Feb 21. PubMed PMID: 28559724; PubMed Central PMCID: PMC5436372.

A previously diagnosed child of persistent hyperplastic primary vitreous (PHPV) with painless blind eye remained clinically silent for about 3 years follow-up. The child suddenly presented as a case of orbital cellulitis and panopthalmitis with meningitis. No definite mass lesion was detected on ultrasonography, magnetic resonance imaging (MRI) and positron emission tomography (PET) scan. Histopathology of the enucleated eye revealed intra-ocular medulloepithelioma as the culprit of sterile panophthalmitis and orbital inflammation.

DOI: 10.1016/j.sjopt.2017.02.004
PMCID: PMC5436372
PMID: 28559724

132: Qaiser D, Srivastava A, Ranjan P, Kataria K. Physics for Surgeons Part 3: Why Cyst Is Spherical in Shape? Indian J Surg. 2017 Apr;79(2):143-147. doi: 10.1007/s12262-016-1586-7. Epub 2017 Jan 7. Review. PubMed PMID: 28442841; PubMed Central PMCID: PMC5386947.

Physical examination of any swelling is the first step in making a diagnosis. Many a times we see a patient with a spherical swelling, which is usually a cyst. The interpretation of physical signs should be based on sound principles of physics. In the present paper, we explain physical characteristics of a swelling (cyst) using principles of fluid mechanics.

DOI: 10.1007/s12262-016-1586-7
PMCID: PMC5386947 [Available on 2018-04-01]
PMID: 28442841

133: R K, Ravani RD, Kakkar P, Kumar A. Intravitreal cysticercosis with full thickness macular hole: management outcome and intraoperative optical coherence tomography features. BMJ Case Rep. 2017 Apr 21;2017. pii: bcr-2016-218645. doi: 10.1136/bcr-2016-218645. PubMed PMID: 28432165.

Ocular cysticercosis is a serious condition with a potential for complete vision loss if left untreated. Intravitreal cysticercosis is the most common ocular form of cysticercosis and is associated with retinal detachment, retinal traction, subretinal scarring and vitritis. To the best of our knowledge, there is no report of the occurrence of a live intravitreal cysticercosis with a full thickness macular hole (FTMH) in the literature. We here report a case of live intravitreal cysticercosis with a FTMH along with its management and intraoperative optical coherence tomography features of the live cysticercus.

DOI: 10.1136/bcr-2016-218645
PMID: 28432165 [Indexed for MEDLINE]

Conflict of interest statement: Competing interests: None declared.

134: Rai T, Choudhury BN, Kedia S, Bopanna S, Venigalla PM, Garg SK, Singla V, Makharia G, Ahuja V. Short-Term Clinical Response to Corticosteroids Can Predict Long-Term Natural History of Ulcerative Colitis: Prospective Study Experience. Dig Dis Sci. 2017 Apr;62(4):1025-1034. doi: 10.1007/s10620-017-4450-0. Epub 2017 Feb 4. PubMed PMID: 28161855.

BACKGROUND: Long-term outcome and natural history of steroid response in adult ulcerative colitis patients based on short-term response is largely unknown.
AIM: To evaluate whether short-term clinical response at 30 days after steroid initiation for moderate to severe disease can predict long-term outcome.
METHODS: This prospective observational study recruited 161 patients who received oral/intravenous steroid therapy at our institution from April 2005 to July 2009. Short-term response at 30 days and long-term response at the end of first and third years were measured. Risk factors for long-term outcome at 1 and 3 years were analyzed by multivariate regression model.
RESULTS: At the end of 30 days, 90 patients (55.9%) had complete response, 47 (29.2%) partial response, and 24 (14.9%) did not respond at all. At the end of first year, 53/90 (60%) complete responders (at 30 days) maintained steroid-free remission when compared to 17/71 (23.9%, $p < 0.001$) partial/no responders. Similar result was observed at the end of third year (74.7 vs 55.1%, $p = 0.017$). On multivariable analysis, short-term outcome at 30 days was a predictor of outcome at the end of one year (RR 4.1, 95% CI 2.2-8.5) and 3 years (RR 2.1, 95% CI 1.02-4.5).
CONCLUSIONS: Short-term response to steroids is a strong predictor of long-term outcome at 1 and 3 years in active ulcerative colitis patients.

DOI: 10.1007/s10620-017-4450-0
PMID: 28161855 [Indexed for MEDLINE]

135: Rastogi S, Aggarwal A. Organization of Chemotherapy and Systemic Therapy Services in India: The Devil Lies in the Details. J Glob Oncol. 2016 Oct 12;3(2):182-183. doi: 10.1200/JGO.2016.006742. eCollection 2017 Apr. PubMed PMID: 28717758; PubMed Central PMCID: PMC5493281.

136: Rath GP, Sharma VB, Dube SK. Persistent Premature Atrial Contraction as the Sole Presentation of Trigeminocardiac Reflex during Radiofrequency Thermocoagulation. J Neurosurg Anesthesiol. 2017 Apr;29(2):187-188. doi: 10.1097/ANA.0000000000000276. PubMed PMID: 26807695.

137: Reeta KH, Singh D, Gupta YK. Edaravone attenuates intracerebroventricular streptozotocin-induced cognitive impairment in rats. Eur J Neurosci. 2017 Apr;45(7):987-997. doi: 10.1111/ejn.13543. Epub 2017 Mar 21. PubMed PMID: 28199036.

Alzheimer's disease is a major cause of dementia worldwide. Edaravone, a potent free radical scavenger, is reported to be neuroprotective. The present study was designed to investigate the effect of chronic edaravone administration on intracerebroventricular-streptozotocin (ICV-STZ) induced cognitive impairment in male Wistar rats. Cognitive impairment was developed by single ICV-STZ (3 mg/kg) injection bilaterally on day 1. Edaravone (1, 3 and 10 mg/kg, orally, once daily) was administered for 28 days. Morris water maze and passive avoidance tests were used to assess cognitive functions at baseline and on days 14 and 28. ICV-STZ caused cognitive impairment as evidenced by increased escape latency and decreased time spent in target quadrant in the Morris water maze test and reduced retention latency in the passive avoidance test. STZ caused increase in oxidative stress, cholinesterases, inflammatory cytokines and protein expression of ROCK-II and decrease in protein expression of ChAT. Edaravone ameliorated the STZ-induced cognitive impairment. STZ-induced increase in oxidative stress and increased levels of pro-inflammatory cytokines (TNF-α, IL-1β) were mitigated by edaravone. Edaravone also prevented STZ-induced increased protein expression of ROCK-II. Moreover, edaravone significantly prevented STZ-induced increased activity of cholinesterases in the cortex and hippocampus. The decreased expression of ChAT caused by STZ was brought towards normal by edaravone in the hippocampus. The results thus show that edaravone is protective against STZ-induced cognitive impairment, oxidative stress, cholinergic dysfunction and altered protein expressions. This study thus suggests the potential of edaravone as an adjuvant in the treatment of Alzheimer's disease.

DOI: 10.1111/ejn.13543
PMID: 28199036

138: Roy SG, Parida GK, Tripathy S, Singhal A, Shamim SA, Tripathi M. Peritoneal Super Scan on (18)F - FDG PET-CT in a Patient of Burkitt's Lymphoma. Indian J Nucl Med. 2017 Apr-Jun;32(2):155-156. doi: 10.4103/0972-3919.202250. PubMed PMID: 28533652; PubMed Central PMCID: PMC5439206.

Peritoneal lymphomatosis is seen less frequently, but when seen, it is mostly associated with aggressive variants of malignancies. FDG uptake has been reported in peritoneal lymphomatosis both in DLBCL and Burkitt's lymphoma. We report a case of Burkitt's lymphoma with involvement of entire peritoneum, which looks like a "peritoneal super scan" on FDG PET-CT.

DOI: 10.4103/0972-3919.202250
PMCID: PMC5439206
PMID: 28533652

Conflict of interest statement: There are no conflicts of interest

139: Sahu A, Bhargava R, Sagar R. Awareness about Specific Learning Disorder among teachers and parents: An Indian perspective. Asian J Psychiatr. 2017 Apr;26:149. doi: 10.1016/j.ajp.2017.02.001. Epub 2017 Feb 5. PubMed PMID: 28483081.

140: Sahu MK, Singh SP, Das A, Abraham A, Airan B, Alam I, Menon R, Devagourou V, Gupta A. High blood tacrolimus and hyperkalemia in a heart transplant patient. Ann Card Anaesth. 2017 Apr-Jun;20(2):270-271. doi: 10.4103/0971-9784.203933. PubMed PMID: 28393798; PubMed Central PMCID: PMC5408543.

141: Sahu MK, Gupta A, Alam I, Singh SP, Menon R, Devagouru V. Modified blalock-taussig shunt and levosimendan for left ventricular preparation in a child with transposition of great arteries and regressed ventricle undergoing rapid 2 stage arterial switch operation. Ann Card Anaesth. 2017 Apr-Jun;20(2):265-267. doi: 10.4103/0971-9784.203929. PubMed PMID: 28393796; PubMed Central PMCID: PMC5408541.

Rapid two-stage arterial switch operation (ASO) is very relevant as many patients of transposition of great arteries (TGA) present late to the hospital when primary switch either is not possible or carries a high risk of morbidity and mortality. Hence, other means apart from the traditional methods of left ventricle preparedness should be tried to help this category of patients, who are to undergo rapid two-stage ASO. We successfully used levosimendan and continuous positive airway pressure after 1st stage operation in a patient with dTGA and regressed ventricle, which helped in left ventricular preparedness, and the child underwent rapid two-stage ASO uneventfully.

DOI: 10.4103/0971-9784.203929
PMCID: PMC5408541
PMID: 28393796

142: Saini C, Tarique M, Rai R, Siddiqui A, Khanna N, Sharma A. T helper cells in leprosy: An update. Immunol Lett. 2017 Apr;184:61-66. doi: 10.1016/j.imlet.2017.02.013. Epub 2017 Feb 21. Review. PubMed PMID: 28235552.

Leprosy is an ancient disease caused by gram positive, rod shaped bacilli called Mycobacterium leprae. Patients present with varied clinico-pathological disease depending on the host immune response to Mycobacterium leprae. Thus tuberculoid (TT) and lepromatous (LL) patients represent two ends of a spectrum where the former shows limited disease, high T cell mediate immune (CMI) response and low antibody (HI) levels in serum. In contrast the latter has low T cell and high humoral immune response i.e antibody levels. The mechanisms underlying these differences have been investigated intensely; however, there is no consensus on the primary immunological basis. Over three decades, Th1 and Th2 paradigm were thought to underling tuberculoid and lepromatous disease respectively. However many patients were shown to have mixed Th1/Th2 pattern of (IFN-γ/IL-4) cytokines. The present review was undertaken with a view to understand the T cells and cytokine dysregulation in leprosy. In recent years the sub classes of T cells that are Regulatory in nature (Treg) have been implicated in immune diseases where they were shown to suppress T cell functions. Additionally Th17 cells secreting IL-17A, IL17F, were implicated in immune inflammation. Taken together these regulatory cells may play a part in influencing immune responses in leprosy.

DOI: 10.1016/j.imlet.2017.02.013
PMID: 28235552

143: Sakthivel P, Yogal R, Singh S, Sharma P, Singh CA. Giant Sialolith of Submandibular Duct. JNMA J Nepal Med Assoc. 2017 Apr-Jun;56(206):262-264. PubMed PMID: 28746326.

Sialolithiasis is one of the most common diseases of salivary glands and commonly involves submandibular gland and ducts. "Giant sialoliths" typically measure more than 15 mm in any dimension. Here, an unusual case of sialolith in submandibular duct is reported which progressed into a giant sialolith in six months' time is reported. A 42-year-old man presented with complaints of recurrent pain and swelling in the right submandibular area. A large stone was palpable intraorally within the Wharton's duct and intra-operatively, an elongated giant sialolith of

50 mm length was found which is the second largest to be published till date.

PMID: 28746326

144: Salve HR, Charlette L, Kankaria A, Rai SK, Krishnan A, Kant S. Improving Access to Institutional Delivery through Janani Shishu Suraksha Karyakram: Evidence from Rural Haryana, North India. Indian J Community Med. 2017 Apr-Jun;42(2):73-76. doi: 10.4103/0970-0218.205223. PubMed PMID: 28553021; PubMed Central PMCID: PMC5427865.

BACKGROUND: In India, Janani Shishu Suraksha Karyakaram (JSSK) was launched in the year 2011 to assure cashless institutional delivery to pregnant women, including free transport and diet.
OBJECTIVE: To assess the impact of JSSK on institutional delivery.
MATERIALS AND METHODS: A record review was done at the primary health care facility in Faridabad district of Haryana from August 2010 to March 2013. Focus group discussion/ informal interviews were carried out to get an insight about various factors determining use / non-use of health facilities for delivery.
RESULTS: Institutional delivery increased by almost 2.7 times (197 Vs 537) after launch of JSSK ($p < 0.001$). For institutional deliveries, the most important facilitator as well as barrier was identified as ambulance service under JSSK and pressure by elders in the family respectively.
CONCLUSIONS: JSSK scheme had a positive impact on institutional deliveries. It should be supported with targeted intervention designed to facilitate appropriate decision-making at family level in order to address barriers to institutional delivery.

DOI: 10.4103/0970-0218.205223
PMCID: PMC5427865
PMID: 28553021

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

145: Saroha K, Pandey AK, Sharma PD, Behera A, Patel C, Bal C, Kumar R. Development and Validation of the Suprathreshold Stochastic Resonance-Based Image Processing Method for the Detection of Abdomino-pelvic Tumor on PET/CT Scans. Indian J Nucl Med. 2017 Apr-Jun;32(2):103-109. doi: 10.4103/0972-3919.202247. PubMed PMID: 28533637; PubMed Central PMCID: PMC5439205.

PURPOSE: The detection of abdomino-pelvic tumors embedded in or nearby radioactive urine containing 18F-FDG activity is a challenging task on PET/CT scan. In this study, we propose and validate the suprathreshold stochastic resonance-based image processing method for the detection of these tumors.
METHODS: The method consists of the addition of noise to the input image, and then thresholding it that creates one frame of intermediate image. One hundred such frames were generated and averaged to get the final image. The method was implemented using MATLAB R2013b on a personal computer. Noisy image was generated using random Poisson variates corresponding to each pixel of the input image. In order to verify the method, 30 sets of pre-diuretic and its corresponding post-diuretic PET/CT scan images (25 tumor images and 5 control images with no tumor) were included. For each sets of pre-diuretic image (input image), 26 images (at threshold values equal to mean counts multiplied by a constant factor ranging from 1.0 to 2.6 with increment step of 0.1) were created and visually inspected, and the image that most closely matched with the gold standard (corresponding post-diuretic image) was selected as the final output image. These images were further evaluated by two nuclear medicine physicians.
RESULTS: In 22 out of 25 images, tumor was successfully detected. In five control images, no false positives were reported. Thus, the empirical probability of detection of abdomino-pelvic tumors evaluates to 0.88.
CONCLUSION: The proposed method was able to detect abdomino-pelvic tumors on pre-diuretic PET/CT scan with a high probability of success and no false positives.

DOI: 10.4103/0972-3919.202247
PMCID: PMC5439205
PMID: 28533637

Conflict of interest statement: There are no conflicts of interest

146: Satpathy G, Nayak N, Wadhwani M, Venkwatesh P, Kumar A, Sharma Y, Sreenivas V. Clinicomicrobiological profile of endophthalmitis: A 10 year experience in a Tertiary Care Center in North India. Indian J Pathol Microbiol. 2017 Apr-Jun;60(2):214-220. doi: 10.4103/IJPM.IJPM_794_15. PubMed PMID: 28631638.

PURPOSE: To determine the clinicomicrobiological profile of infectious agents and their antibiotic susceptibility in different type of endophthalmitis.
METHODS: A retrospective review of clinical and microbiological records from January 2001 to December 2010, was performed in 1110 patients diagnosed with different type of endophthalmitis (postoperative, posttraumatic, endogenous and post keratitis) to record the demographic details, clinical presentations; microbiological agents isolated with their antimicrobial sensitivity pattern. Antimicrobial susceptibility testing for various culture positive isolates (bacterial/fungal) was performed by the disc diffusion technique.
RESULTS: Out of the 1110 intra-ocular specimens processed, 384 (34.6%) were positive for bacteria. S epidermidis was the most predominant isolate accounting for 42.7% of all bacteria obtained, followed by Pseudomonas aeruginosa (24.5%). Besides Pseudomonas, Acinetobacter spp. were the next common gram negative bacilli detected (8.3%) followed by Klebsiella, E. coli, Enterobacter and Alkaligenes in 2.6%, 0.8%, 0.8% and 0.5% cases respectively. The predominant fungal species were Aspergillus spp., in 36.1%, followed by Fusarium spp. in 26.4% cases. Overall susceptibility pattern in our study showed that gram positive bacteria were most susceptible to glycopeptides like vancomycin (80-100%) and fluoroquinolones (87-91%). The sensitivity pattern of gram negative organisms like Pseudomonas and Klebsiella towards fluoroquinolones ranged between 61% - 82%.
CONCLUSION: S epidermidis was the most common bacteria isolated in postoperative and posttraumatic endophthalmitis, Pseudomonas aeruginosa was the most common bacterial isolated in posttraumatic endophthalmitisAmongst fungi Aspergillus was the most common organism.

DOI: 10.4103/IJPM.IJPM_794_15
PMID: 28631638

147: Satyarthee GD, Singh M. Giant Unruptured Middle Cerebral Artery Aneurysm Presenting with Complex Partial Seizure: A Short Review. J Pediatr Neurosci. 2017 Apr-Jun;12(2):185-187. doi: 10.4103/jpn.JPN_182_16. PubMed PMID: 28904583; PubMed Central PMCID: PMC5588650.

Intracranial aneurysm is a rare cause of seizure although few cases may develop new onset seizure following rupture of aneurysm. The causes of seizure in ruptured aneurysm may be caused due to presence of subarachnoid hemorrhage, intracerebral hematoma, infarct due to progressive vasospasm, worsening of hydrocephalus, or even after surgical craniotomy for clipping of aneurysm. However, incidental aneurysm solely presenting with complex partial seizure is not reported in literature. To the best of knowledge of authors, current case represents the first case as incidental aneurysm presenting with seizure and pertinent literature is briefly reviewed.

DOI: 10.4103/jpn.JPN_182_16
PMCID: PMC5588650
PMID: 28904583

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

148: Sazawal S, Chikkara S, Singh K, Chaubey R, Chandra D, Mishra P, Mahapatra M,

Seth T, Saxena R. Chronic myeloid leukemia with a rare fusion transcript, e19a2 BCR-ABL1: A report of three cases from India. Ann Diagn Pathol. 2017 Apr;27:24-27. doi: 10.1016/j.anndiagpath.2016.12.001. Epub 2016 Dec 15. PubMed PMID: 28325357.

The μ-bcr breakpoint connects exon 19 of BCR with ABL giving rise to the e19a2 transcript corresponding to the p230 fusion protein (micro-BCR breakpoint) which is rarely seen in chronic myeloid leukemia (CML) patients. Here we report three patients with p230 fusion protein presenting with different clinical presentations and diagnosed as CML-CP. These patients received Imatinib (tyrosine kinase inhibitor-TKI) and are still in remission.

DOI: 10.1016/j.anndiagpath.2016.12.001
PMID: 28325357 [Indexed for MEDLINE]

149: Sethi A, Joshi M, Thukral A, Singh Dalal J, Kumar Deorari A. A Quality Improvement Initiative: Improving Exclusive Breastfeeding Rates of Preterm Neonates. Indian J Pediatr. 2017 Apr;84(4):322-325. doi: 10.1007/s12098-017-2306-4. Epub 2017 Feb 24. PubMed PMID: 28233253.

This study is a single center quality improvement (QI) initiative in a tertiary care neonatal intensive care unit which was done with an objective to increase the proportion of neonates receiving mother's own milk (at postnatal age of 7 d) from the current rate of 12.5% to 30% over a period of six weeks. Additional objectives were to evaluate the proportion of mothers' expressing breast milk within 3 h of birth, on day one and three and the amount of expressed breast milk (EBM) on day one and day seven. A team was formulated to evaluate the reasons for inadequate breast milk expression and to plan the steps for promoting the same. Comprehensive postnatal breast feeding counseling (CPNC) to promote early breast milk expression was initiated soon after the birth of a preterm neonate. CPNC was done for next fifteen mothers and their breast feeding support was streamlined. The effect of CPNC and teamwork was discussed amongst the team members every day and adjustments incorporated (Plan-Do-Study-Act cycle). The proportion of neonates receiving mother's only milk (MOM) on day 7 increased to 80% (12/15) after 4 wk of QI. Thus, a simple and feasible CPNC package lead to improved breast milk output in mothers.

DOI: 10.1007/s12098-017-2306-4
PMID: 28233253

150: Shah N, Ray JG, Kundu S, Sardana D. Surgical management of chronic hyperplastic candidiasis refractory to systemic antifungal treatment. J Lab Physicians. 2017 Apr-Jun;9(2):136-139. doi: 10.4103/0974-2727.199622. PubMed PMID: 28367031; PubMed Central PMCID: PMC5320878.

Chronic hyperplastic candidiasis (CHC), earlier known as candidal leukoplakia, is a variant of oral candidiasis that classically presents as a white patch on the commissures of the oral mucosa and it is mostly caused by Candida albicans. Clinically, the lesions are usually asymptomatic and regress after appropriate antifungal therapy and correction of the underlying cause. If the lesions are untreated, a small portion may develop dysplasia and later progress into carcinoma. The purpose of this article is to report a case of CHC in a 57-year-old male patient with a significant smoking habit, who presented with a thick, nonscrapable, brownish-white coating on the dorsum of the tongue for 9 years. This case is of particular importance and concern because of the high risk for malignant transformation in CHC. The role of biopsy and histopathology is also stressed through this case report in arriving at a definitive diagnosis and treatment planning. Further, this case is interesting because it was refractory to local and systemic antifungal treatment and so, surgery was chosen as an alternative treatment modality considering the side effects of the prolonged use of antifungal drugs.

DOI: 10.4103/0974-2727.199622
PMCID: PMC5320878
PMID: 28367031

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

151: Shah VD, Mirgh SP, Surya N. Isolated palatal weakness without optic neuritis as the presenting manifestation of multiple sclerosis and its diagnostic dilemma with acute disseminated encephalomyelitis in a young boy. Avicenna J Med. 2017 Apr-Jun;7(2):71-74. doi: 10.4103/ajm.AJM_91_16. PubMed PMID: 28469990; PubMed Central PMCID: PMC5398007.

We present a case of a young boy who at initial presentation was diagnosed as acute disseminated encephalomyelitis (ADEM) but subsequently on follow-up was diagnosed as multiple sclerosis (MS). Differentiating ADEM from MS in their first presentation can be tricky as the features may not be typical of anyone. The importance lies in the close follow-up of these patients.

DOI: 10.4103/ajm.AJM_91_16
PMCID: PMC5398007
PMID: 28469990

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

152: Shahzad N, Khan W, Md S, Ali A, Saluja SS, Sharma S, Al-Allaf FA, Abduljaleel Z, Ibrahim IAA, Abdel-Wahab AF, Afify MA, Al-Ghamdi SS. Phytosterols as a natural anticancer agent: Current status and future perspective. Biomed Pharmacother. 2017 Apr;88:786-794. doi: 10.1016/j.biopha.2017.01.068. Epub 2017 Jan 31. Review. PubMed PMID: 28157655.

Phytosterols are naturally occurring compounds in plants, structurally similar to cholesterol. The human diet is quite abundant in sitosterol and campesterol. Phytosterols are known to have various bioactive properties including reducing intestinal cholesterol absorption which alleviates blood LDL-cholesterol and cardiovascular problems. It is indicated that phytosterol rich diets may reduce cancer risk by 20%. Phytosterols may also affect host systems, enabling antitumor responses by improving immune response recognition of cancer, affecting the hormone dependent endocrine tumor growth, and by sterol biosynthesis modulation. Moreover, phytosterols have also exhibited properties that directly inhibit tumor growth, including reduced cell cycle progression, apoptosis induction, and tumor metastasis inhibition. The objective of this review is to summarize the current knowledge on occurrences, chemistry, pharmacokinetics and potential anticancer properties of phytosterols in vitro and in vivo. In conclusion, anticancer effects of phytosterols have strongly been suggested and support their dietary inclusion to prevent and treat cancers.

DOI: 10.1016/j.biopha.2017.01.068
PMID: 28157655 [Indexed for MEDLINE]

153: Shalimar, Kedia S, Gunjan D, Sonika U, Mahapatra SJ, Nayak B, Kaur H, Acharya SK. Acute Liver Failure Due to Hepatitis E Virus Infection Is Associated with Better Survival than Other Etiologies in Indian Patients. Dig Dis Sci. 2017 Apr;62(4):1058-1066. doi: 10.1007/s10620-017-4461-x. Epub 2017 Jan 27. PubMed PMID: 28130708.

BACKGROUND AND AIM: Hepatitis E virus (HEV) is a global disease and an important cause of acute liver failure (ALF) in the Indian subcontinent. The aim of this study was to assess the differences in the course of HEV-ALF as compared to other etiologies of ALF.

METHODS: We compared the clinical course, complications, and outcomes of HEV-ALF with other etiologies. We assessed the prognostic factors and compared existing prognostic scores in HEV-ALF patients.
RESULTS: One thousand four hundred and sixty-two ALF patients were evaluated between January 1986 and December 2015. HEV was the etiology of ALF in 419 (28.7%) cases, whereas non-A non-E hepatitis, HBV and anti-tuberculosis therapy (ATT) were the etiologies in 527 (36.0%), 128 (8.8%), and 103 (7.0%) cases, respectively. The frequency of cerebral edema in HEV-ALF (41.3%) was lower than that in non-A non-E ALF (52.9%; P < 0.001) and HBV-ALF (52.8%; P = 0.024). Infection and seizures were significantly less in patients with HEV-ALF compared to non-A non-E and HBV-ALF (P = 0.038 and 0.022, respectively). The survival of HEV-ALF patients was significantly better (55.1%, P < 0.001) than patients of other etiologies-including ATT (30.0%), non-A non-E (38.1%) and HBV (35.9%). In HEV-ALF patients, age, female sex, cerebral edema, prothrombin time >60 s, infection, and total bilirubin were observed as independent predictors of outcome on multivariate logistic regression analysis. Model for end-stage liver disease, acute liver failure study group model and King's College Hospital criteria had poor discriminative accuracy for outcome (area under receiver operator characteristic curve 0.63-0.64) in HEV-ALF.
CONCLUSIONS: Hepatitis E virus-associated ALF has a better outcome than ALF of other etiologies.

DOI: 10.1007/s10620-017-4461-x
PMID: 28130708 [Indexed for MEDLINE]

154: Shamim SA, Tripathy S, Mukherjee A, Bal C, Tripathi M. (18-)F-FDG PET/CT in Localizing Additional CNS Lesion in a Case of Langerhans Cell Histiocytosis: Determining Accurate Extent of the Disease. Indian J Nucl Med. 2017 Apr-Jun;32(2):162-163. doi: 10.4103/0972-3919.202253. PubMed PMID: 28533655; PubMed Central PMCID: PMC5439200.

Central nervous system involvement is a rare manifestation of Langerhans cell histiocytosis (LCH), with bone and skin lesions being more frequent. MR remains the investigation of choice for localizing brain lesions. However, due to poor sensitivity of MRI in detecting osseous and pulmonary lesions, it is not used routinely in staging purposes until and unless indicated. We hereby discuss a case of 6-year-old boy of LCH who was referred for 18-F-FDG PET/CT for staging and knowing the extent of the disease, but a lesion in hypothalamus was picked up incidentally on FDG PET-CT study that was confirmed by MRI.

DOI: 10.4103/0972-3919.202253
PMCID: PMC5439200
PMID: 28533655

Conflict of interest statement: There are no conflicts of interest

155: Sharma A, Kumar S, Sharma S. Vertebral artery from descending thoracic aorta: rare anatomic variant with diagnostic implication. Acta Neurochir (Wien). 2017 Jun;159(6):1105-1106. doi: 10.1007/s00701-017-3175-3. Epub 2017 Apr 8. PubMed PMID: 28391445.

Variations of vertebral artery origins are rare and incidental. Anomalous bilateral vertebral arteries with right vertebral artery from descending thoracic aorta and normal bilateral subclavian arteries have not been reported in the literature so far. We report one such case in a cyanotic congenital heart disease patient, where its identification is of importance to avoid its inadvertent preoperative embolization, which can be catastrophic.

DOI: 10.1007/s00701-017-3175-3
PMID: 28391445

156: Sharma S, Dasgupta S, Suman SK, Kumar U, Chitekela S. Disseminated tuberculosis with Evans syndrome: an uncommon presentation. Trop Doct. 2017

Apr;47(2):179-181. doi: 10.1177/0049475516688162. Epub 2017 Jan 24. PubMed PMID: 28118797.

157: Sharma VK, Gupta V, Pathak M, Ramam M. An open-label prospective clinical study to assess the efficacy of increasing levocetirizine dose up to four times in chronic spontaneous urticaria not controlled with standard dose. J Dermatolog Treat. 2017 Sep;28(6):539-543. doi: 10.1080/09546634.2016.1246705. Epub 2017 Apr 25. PubMed PMID: 27779432.

OBJECTIVE: The EAACI/GA(2)LEN/EDF/WAO recommendation of increasing antihistamines' dose up to four times in urticaria not adequately controlled with the standard dose is largely based on expert opinion. The objective of this study is to test the current urticaria guidelines of up-dosing antihistamines as second-line treatment.
METHODS: This was an open-label study conducted prospectively on 113 patients with chronic spontaneous urticaria. All patients were treated with sequentially increasing doses of levocetrizine (5 mg, 10 mg, 15 mg and 20 mg/day) every week till the patients became completely asymptomatic or dose of 20 mg/day reached. Urticaria Activity Score (UAS)-7, urticaria-related quality-of-life (CU-Q2oL) and patients' global assessment were used to assess treatment response.
RESULTS: Twenty-one (18.58%) patients became asymptomatic with levocetirizine 5 mg/day, while 50 required higher doses of levocetirizine for complete control: 29/92 (31.52%), 6/63 (9.52%) and 15/57 (26.31%) with 10 mg, 15 mg and 20 mg/day, respectively. The percentage of patients experiencing >75% improvement increased with increasing doses of levocetirizine: 26.54%, 53.98%, 60.17% and 69.91% with 5 mg, 10 mg, 15 mg and 20 mg/day, respectively. Sequential up-dosing of levocetirizine produced a progressive improvement in both urticaria control (UAS-7) and quality-of-life (CU-Q2oL) without significantly increasing somnolence.
CONCLUSIONS: Our results support the current recommendations of increasing antihistamines up to four times the standard dose in patients who fail the first-line treatment.

DOI: 10.1080/09546634.2016.1246705
PMID: 27779432

158: Shekhar S, Yadav SK, Rai N, Kumar R, Yadav Y, Tripathi M, Dey AB, Dey S. 5-LOX in Alzheimer's Disease: Potential Serum Marker and In Vitro Evidences for Rescue of Neurotoxicity by Its Inhibitor YWCS. Mol Neurobiol. 2017 Apr 27. doi: 10.1007/s12035-017-0527-1. [Epub ahead of print] PubMed PMID: 28451886.

The inflammatory process plays a key role in neurodegenerative disorder. The inflammatory molecule, 5-lipooxygenase (5-LOX), protein is involved in the pathologic phenotype of Alzheimer's disease (AD) which includes Aβ amyloid deposition and tau hyperphosphorylation. This study determined the level of 5-LOX in serum of AD patients, mild cognitive impairment (MCI) patients, and the normal elderly, and the rescue effect by YWCS, a peptide inhibitor of 5-LOX on neurotoxicity by Aβ amyloid25-35 (Aβ25-35) in neuroblastoma cells. The concentration of serum 5-LOX was estimated by surface plasmon resonance and western blot. The neuroprotective effect of 5-LOX peptide inhibitor YWCS in Aβ25-35-induced neurotoxicity was analyzed by MTT assay and western blotting. We found significant upregulated serum 5-LOX in AD patients and also in MCI patients compared to the normal control group. The peptide inhibitor of 5-LOX, YWCS, prevented the neurotoxic effect of Aβ25-35 by reducing the expression of γ-secretase as well as p-Tau181 in SH-SY5Y cells. However, YWCS was nontoxic towards normal HEK cells. The differential expression of serum 5-LOX among the study groups suggests it can be one of potential serum protein marker and a therapeutic regimen for AD and MCI. The negative correlation with neuropsychological parameters, i.e., MoCA and HMSE, increases its importance and makes it useful during the clinical setup which is very needful in developing countries. Peptide YWCS can serve as a new platform as a 5-LOX inhibitor which can prevent neurotoxicity developed in AD.

DOI: 10.1007/s12035-017-0527-1
PMID: 28451886

159: Shergill S, Smyrk TC, Sweetser S. A Malignant Mimic. Gastroenterology. 2017 Apr;152(5):953-955. doi: 10.1053/j.gastro.2016.11.015. Epub 2017 Mar 1. PubMed PMID: 28259718.

160: Shewade HD, Kokane AM, Singh AR, Verma M, Parmar M, Chauhan A, Chahar SS, Tiwari M, Khan SN, Gupta V, Tripathy JP, Nagar M, Singh SK, Mehra PK, Kumar AM. High pre-diagnosis attrition among patients with presumptive MDR-TB: an operational research from Bhopal district, India. BMC Health Serv Res. 2017 Apr 4;17(1):249. doi: 10.1186/s12913-017-2191-6. Erratum in: BMC Health Serv Res. 2017 Apr 24;17 (1):301. PubMed PMID: 28376789; PubMed Central PMCID: PMC5379759.

BACKGROUND: Pre-diagnosis attrition needs to be addressed urgently if we are to make progress in improving MDR-TB case detection and achieve universal access to MDR-TB care. We report the pre-diagnosis attrition, along with factors associated, and turnaround times related to the diagnostic pathway among patient with presumptive MDR-TB in Bhopal district, central India (2014).
METHODS: Study was conducted under the Revised National Tuberculosis Control Programme setting. It was a retrospective cohort study involving record review of all registered TB cases in Bhopal district that met the presumptive MDR-TB criteria (eligible for DST) in 2014. In quarter 1, Line Probe Assay (LPA) was used if sample was smear/culture positive. Quarter 2 onwards, LPA and Cartridge-based Nucleic Acid Amplification Test (CbNAAT) was used for smear positive and smear negative samples respectively. Pre-diagnosis attrition was defined as failure to undergo DST among patients with presumptive MDR-TB (as defined by the programme).
RESULTS: Of 770 patients eligible for DST, 311 underwent DST and 20 patients were diagnosed as having MDR-TB. Pre-diagnosis attrition was 60% (459/770). Among those with pre-diagnosis attrition, 91% (417/459) were not identified as 'presumptive MDR-TB' by the programme. TAT [median (IQR)] to undergo DST after eligibility was 4 (0, 10) days. Attrition was more than 40% across all subgroups. Age more than 64 years; those from a medical college; those eligible in quarter 1; patients with presumptive criteria 'previously treated - recurrent TB', 'treatment after loss-to-follow-up' and 'previously treated-others'; and patients with extra-pulmonary TB were independent risk factors for not undergoing DST.
CONCLUSION: High pre-diagnosis attrition was contributed by failure to identify and refer patients. Attrition reduced modestly with time and one factor that might have contributed to this was introduction of CbNAAT in quarter 2 of 2014. General health system strengthening which includes improvement in identification/referral and patient tracking with focus on those with higher risk for not undergoing DST is urgently required.

DOI: 10.1186/s12913-017-2191-6
PMCID: PMC5379759
PMID: 28376789 [Indexed for MEDLINE]

161: Shewade HD, Kokane AM, Singh AR, Verma M, Parmar M, Chauhan A, Chahar SS, Tiwari M, Khan SN, Gupta V, Tripathy JP, Nagar M, Singh SK, Mehra PK, Kumar AMV. Erratum to: High pre-diagnosis attrition among patients with presumptive MDR-TB: an operational research from Bhopal district, India. BMC Health Serv Res. 2017 Apr 24;17(1):301. doi: 10.1186/s12913-017-2252-x. PubMed PMID: 28438143; PubMed Central PMCID: PMC5404325.

162: Sikary AK, Kumar R. Case report of fatal post-coital bleeding with systemic bleeding diathesis. Int J Gynaecol Obstet. 2017 Apr;137(1):94-95. doi: 10.1002/ijgo.12100. Epub 2017 Feb 2. PubMed PMID: 28083962.

163: Singh A, Purohit BM. Exploring patient satisfaction levels, self-rated oral health status and associated variables among citizens covered for dental insurance through a National Social Security Scheme in India. Int Dent J. 2017 Jun;67(3):172-179. doi: 10.1111/idj.12285. Epub 2017 Apr 17. PubMed PMID: 28417462.

OBJECTIVE: To assess patient satisfaction, self-rated oral health and associated factors, including periodontal status and dental caries, among patients covered for dental insurance through a National Social Security Scheme in New Delhi, India.
METHOD: A total of 1,498 patients participated in the study. Satisfaction levels and self-rated oral-health scores were measured using a questionnaire comprising 12 closed-ended questions. Clinical data were collected using the Community Periodontal Index (CPI) and the decayed, missing and filled teeth (DMFT) index. Regression analysis was conducted to evaluate factors associated with dental caries, periodontal status and self-rated oral health.
RESULTS: Areas of concern included poor cleanliness within the hospital, extensive delays for appointments, waiting time in hospital and inadequate interpersonal and communication skills among health-care professionals. Approximately 51% of the respondents rated their oral health as fair to poor. Younger age, no tobacco usage, good periodontal status and absence of dental caries were significantly associated with higher oral health satisfaction, with odds ratios of 3.94, 2.38, 2.58 and 2.09, respectively ($P \leq 0.001$).
CONCLUSION: The study indicates poor satisfaction levels with the current dental care system and a poor self-rated oral health status among the study population. Some specific areas of concern have been identified. These findings may facilitate restructuring of the existing dental services under the National Social Security Scheme towards creating a better patient care system.

DOI: 10.1111/idj.12285
PMID: 28417462

164: Singh A, Kumar A, Kumar P, Kumar S, Gamanagatti S. "Beyond saving lives": Current perspectives of interventional radiology in trauma. World J Radiol. 2017 Apr 28;9(4):155-177. doi: 10.4329/wjr.v9.i4.155. Review. PubMed PMID: 28529680; PubMed Central PMCID: PMC5415886.

Interventional radiology (IR) has become an integral part in the management of traumatic injuries. There is an ever-increasing role of IR in traumatic injuries of solid abdominal organs, pelvic and peripheral arteries to control active bleeding by therapeutic embolization or vascular reconstruction using stent grafts. Traditionally, these endovascular treatments have been offered to hemodynamically stable patients. However, in recent times endovascular approach has become preferable to surgery even in hemodynamically unstable patients with injury of surgically difficult-to-access sites. With shifting trends towards non operative management coupled with availability of the current state-of-the-art equipments, hardware and technical expertise, IR has gained an impeccable role in trauma management. However, due to lack of awareness and widespread acceptance, IR continues to remain an ocean of unexplored potentialities.

DOI: 10.4329/wjr.v9.i4.155
PMCID: PMC5415886
PMID: 28529680

Conflict of interest statement: Conflict-of-interest statement: The authors have nothing to disclose.

165: Singh A, Seth R, Singla M, Kabra SK, Lodha R. Clinical Profile of Dengue Infection in Immune-compromised Children. Indian Pediatr. 2017 Apr 15;54(4):330-331. Epub 2017 Feb 2. PubMed PMID: 28159953.

Review of records of children admitted with dengue infection was carried out to compare clinical and laboratory parameters, course of illness, and outcome between immune-compromised and immune-competent patients. Statistically significant differences were found in days to platelet recovery (P=0.03), hepatic dysfunction (P= 0.04), and higher requirement of fluid (P= 0.01) in immune-compromised group.

PMID: 28159953 [Indexed for MEDLINE]

166: Singh J, Garg K, Sharma R, Sinha S, Kale SS. Damage control surgery in intracerebral hemorrhage in acute leukemia: a review of two cases. Childs Nerv Syst. 2017 Jul;33(7):1229-1232. doi: 10.1007/s00381-017-3401-6. Epub 2017 Apr 3. PubMed PMID: 28374115.

INTRODUCTION: Intracerebral hemorrhage is the second most common cause of mortality (after infections) in acute leukemia and is responsible for approximately 20% of deaths due to acute leukemia. Management of intracerebral hemorrhage (ICH) is mostly conservative but there exist certain patients who need emergent surgery due to the poor Glasgow Coma Scale (GCS) despite their coagulopathic state.
CASE REPORT: We present here two such cases which were successfully managed with decompressive craniectomy which was done as a damage control surgery thus stating the importance of surgical intervention in the management of acutely deteriorating patients rather than the commonly employed conservative management due to their coagulopathic state.

DOI: 10.1007/s00381-017-3401-6
PMID: 28374115

167: Singh N, Lata K, Malhotra N, Vanamail P. Correlation of Site of Embryo Transfer with IVF Outcome: Analysis of 743 Cycles from a Single Center. J Hum Reprod Sci. 2017 Apr-Jun;10(2):102-107. doi: 10.4103/jhrs.JHRS_54_15. PubMed PMID: 28904498; PubMed Central PMCID: PMC5586082.

OBJECTIVE: To investigate the influence of site of embryo transfer (ET) on reproductive outcome.
MATERIALS AND METHODS: A retrospective analysis of 743 ultrasound-guided ET in fresh in vitro fertilization (IVF) cycles from a single center over a period of 4 years was conducted. The distance between the fundal endometrial surface and the air bubble was measured, and accordingly, patients were divided into four groups (≤10 mm; >10 and ≤15 mm; >15 and 20 mm; >20 and <25 mm).
SETTING: Tertiary Assisted Reproductive Technology (ART) center.
PATIENTS: All patients enrolled in the IVF program undergoing ET.
INTERVENTIONS: Controlled ovarian hyperstimulation (OS), IVF, and ET.
MAIN OUTCOME MEASURES: Cleavage rate and clinical pregnancy rate.
RESULTS: Clinical pregnancy rate was significantly more in groups 2 and 3 compared to the other groups. Logistic regression analysis showed that one unit increase in embryos transfer will enhance the pregnancy outcome about 3.7 (adjusted odds ratio) times with 95% confidence limits 2.6 to 5.4. Similarly, pregnancy outcome will be 3.1 (95% confidence limits: 1.5-6.4) times higher for distance group >15 and <20 mm compared to less than 10-mm distance group. Ectopic pregnancy rates were similar in all the four groups.
CONCLUSION: The present study demonstrates that site of ET has significant difference on reproductive outcome.

DOI: 10.4103/jhrs.JHRS_54_15
PMCID: PMC5586082
PMID: 28904498

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

168: Singh N, Rohatgi J, Kumar V. A Prospective Study of Anterior Segment Ocular Parameters in Anisometropia. Korean J Ophthalmol. 2017 Apr;31(2):165-171. doi: 10.3341/kjo.2017.31.2.165. Epub 2017 Mar 21. PubMed PMID: 28367046; PubMed Central PMCID: PMC5368091.

PURPOSE: The aim of this study was to investigate the differences in anterior segment ocular parameters in anisometropia >1 D.
METHODS: This study included 202 eyes of 101 subjects ranging from 10 to 40 years of age with anisometropia of 1 D or more. The subjects were divided into groups according to anisomyopia, anisoastigmatism, and anisohypermetropia. After providing informed consent, each patient underwent a detailed ophthalmological examination including cycloplegic refraction, best-corrected visual acuity, cover test, axial length (AL) measurement using A-scan ultrasound biometer, keratometry, anterior chamber depth, and central corneal thickness measurement. For each participant, the eye with greater refractive error was compared to the fellow eye via paired t-tests. Correlations between parameters were studied using the Pearson correlation coefficient.
RESULTS: The average age of subjects was 21.7 ± 9.3 years. Of 101 subjects, 31 had anisomyopia; 42 had anisohypermetropia; and 28 had anisoastigmatism. A predisposition toward greater myopia in right eyes was noted in anisomyopia (24 of 31 subjects, 77%). The inter-ocular acuity difference was significant in all three groups ($p < 0.01$). As the degree of anisometropia increased, there was significant positive correlation in the difference in AL in myopes ($r = 0.863$, $p < 0.01$) and hypermetropes ($r = 0.669$, $p < 0.01$) and the difference in corneal curvature in anisoastigmatism ($r = 0.564$, $p = 0.002$) and hypermetropes ($r = 0.376$, $p = 0.014$). A significant positive correlation was also present between the anterior chamber depth difference and refractive difference in hypermetropes ($r = 0.359$, $p = 0.020$).
CONCLUSIONS: This study showed that anisomyopia is correlated only with anterior chamber differences. Anisohypermetropia is correlated with AL differences as well as corneal curvature difference and anterior chamber depth difference. The amount of anisoastigmatism correlates only with corneal curvature difference.

DOI: 10.3341/kjo.2017.31.2.165
PMCID: PMC5368091
PMID: 28367046 [Indexed for MEDLINE]

Conflict of interest statement: Conflict of Interest: No potential conflict of interest relevant to this article was reported.

169: Singh P, Panaiyadiyan S, Nayak B. Pelvic gossypiboma with spontaneous intravesical erosion. BMJ Case Rep. 2017 Apr 11;2017. pii: bcr-2016-219173. doi: 10.1136/bcr-2016-219173. PubMed PMID: 28404550.

A 23-year-old man presented with chronic lower urinary tract symptoms and right flank pain. He had undergone ureterolithotomy a few years ago. Ultrasonography and CT of the abdomen and pelvis showed a right paravesical mass and proximal hydroureteronephrosis. Cystoscopic examination revealed a part of surgical gauze embedded in the right lateral wall of the bladder. The surgical gauze was completely retrieved with grasping forceps without any additional procedures. The patient experienced prompt relief of his symptoms and at follow-up, imaging studies revealed resolution of the pelvic mass and non-obstructed clearance of right-side collecting system. Pelvic gossypiboma with partial intravesical erosion is an unusual presentation and can be managed successfully by cystoscopic manipulation.

DOI: 10.1136/bcr-2016-219173
PMID: 28404550 [Indexed for MEDLINE]

170: Singh S, Zafar A, Khan S, Naseem I. Towards therapeutic advances in melanoma management: An overview. Life Sci. 2017 Apr 1;174:50-58. doi: 10.1016/j.lfs.2017.02.011. Epub 2017 Feb 24. Review. PubMed PMID: 28238718.

Melanoma is one of the most aggressive types of skin cancer with rapidly increasing incidence rate. The disease is largely considered incurable and the patients diagnosed with metastatic melanoma have a survival of not more than five years. Despite of the recent advances in anti-melanoma chemo- and immunotherapies, the available drugs are relatively toxic and responsive to only a limited subset of lesions. Currently, topical pharmacotherapy is demonstrated as an effective approach for the treatment of various skin cancers. Also, in vitro testing of melanoma cell lines and murine melanoma models has identified a number of relatively safe and effective phytochemicals. In this review, we described the use of topical pharmacotherapy for the treatment of skin cancers. Melanoma treatment by drugs targeting MAPK-pathway has also been discussed. Long non-coding RNAs and therapeutics targeting ER-associated pathways looks quite promising for the treatment of melanoma. Moreover, some natural anticancer compounds that have been reported to have anti-melanoma effects have also been described. At present a better understanding of genetics and epigenetics of initiation and progression of melanoma is needed for the identification of novel biomarkers and development of targeted therapeutics against melanoma.

DOI: 10.1016/j.lfs.2017.02.011
PMID: 28238718 [Indexed for MEDLINE]

171: Singh Y, Mirdha BR, Guleria R, Khalil S, Panda A, Chaudhry R, Mohan A, Kabra SK, Kumar L, Agarwal SK. Circulating genotypes of Pneumocystis jirovecii and its clinical correlation in patients from a single tertiary center in India. Eur J Clin Microbiol Infect Dis. 2017 Apr 11. doi: 10.1007/s10096-017-2977-9. [Epub ahead of print] PubMed PMID: 28401321.

The present study was carried out with the objectives of genotyping Pneumocystis jirovecii at three distinct loci, to identify the single nucleotide polymorphisms (SNPs), and to study its clinical implications in patients with Pneumocystis pneumonia (PCP). Analysis of genetic diversity in P. jirovecii from immunocompromised patients was carried out by genotyping at three distinct loci encoding mitochondrial large subunit rRNA (mtLSU rRNA), cytochrome b (CYB), and superoxide dismutase (SOD) using polymerase chain reaction (PCR) assays followed by direct DNA sequencing. Of the 300 patients enrolled in the present study, 31 (10.33%) were positive for PCP by a specific mtLSU rRNA nested PCR assay, whereas only 15 P. jirovecii could be amplified at the other two loci (SOD and CYB). These positives were further subjected to sequence typing. Important genotypic combinations between four SNPs (mt85, SOD110, SOD215, and CYB838) and clinical outcomes could be observed in the present study, and mt85A, mt85T, and SOD110C/SOD215T were frequently associated with "negative follow-up". These SNPs were also noted to be relatively more prevalent amongst circulating genotypes in our study population. The present study is the first of its kind from the Indian subcontinent and demonstrated that potential SNPs of P. jirovecii may possibly be attributed to the clinical outcome of PCP episodes in terms of severity or fatality in different susceptible populations likely to develop PCP during their course of illness.

DOI: 10.1007/s10096-017-2977-9
PMID: 28401321

172: Sirohi A, Kaur R, Goswami AK, Mani K, Nongkynrih B, Gupta SK. A study of falls among elderly persons in a rural area of Haryana. Indian J Public Health. 2017 Apr-Jun;61(2):99-104. doi: 10.4103/ijph.IJPH_102_16. PubMed PMID: 28721959.

BACKGROUND: Falls are a common, disabling, and frequently fatal health concern

among elderly persons. Assessment of the prevalence of falls and associated factors can lead to the identification of corrective measures, which can help in preventing falls and their consequent effects on health and well-being of the elderly.
OBJECTIVES: The objective is to determine the prevalence of falls among elderly persons in a rural area and to study the association of falls with sociodemographic variables and selected health conditions.
METHODS: In a community-based, cross-sectional study conducted among 456 elderly persons in a rural area, information regarding sociodemographic details, selected health conditions, and history of falls in the past 12 months was recorded. Univariate analysis followed by stepwise multivariate logistic regression analysis was carried out. The effect of sociodemographic and various health conditions on falls was analyzed using logistic regression analysis.
RESULTS: Among the 456 study participants, the prevalence of falls in the past 12 months was 36.6% (95% confidence interval [CI] =32.1-40.0). The prevalence among women was 40.6% (95% CI = 34.5-46.7) and among men was 31.5% (95% CI = 25.0-37.9). Low socioeconomic status, urgency of micturition, knee pain, visual impairment, hearing impairment, functional disability, and depression were significantly associated with falls.
CONCLUSIONS: Falls are common among elderly persons. Health programs for the elderly must include prevention of falls and rehabilitation of fall-related injuries.

DOI: 10.4103/ijph.IJPH_102_16
PMID: 28721959

173: Sivanandan S, Agarwal R, Sethi A. Respiratory distress in term neonates in low-resource settings. Semin Fetal Neonatal Med. 2017 Aug;22(4):260-266. doi: 10.1016/j.siny.2017.04.004. Epub 2017 Apr 26. Review. PubMed PMID: 28456514.

Most neonatal deaths worldwide occur in low- and middle-income countries (LMICs). Respiratory distress is an important cause of neonatal morbidity and mortality. The epidemiology of respiratory distress among term neonates who constitute the vast majority of births is under reported. The scarcely available data from LMICs suggest an incidence of 1.2% to 7.2% among term live births and greater morbidity compared to that in high-income countries. Pneumonia and meconium aspiration syndrome are the predominant causes among outborn neonates, but next only to transient tachypnea among inborn neonates. Community management of neonatal sepsis/pneumonia using simplified antibiotic regimens when referral is not feasible, implementation of non-invasive ventilation, and innovative low-cost technologies to deliver respiratory therapy are important advances that have taken place in these settings. There is an urgent need to generate data on respiratory morbidities among term neonates so that the limited resources in these settings can be allocated judiciously.

DOI: 10.1016/j.siny.2017.04.004
PMID: 28456514

174: Sondhi P, Yadav S. Facilitating Microneedling Over the Cheeks. Dermatol Surg. 2017 Apr 11. doi: 10.1097/DSS.0000000000001159. [Epub ahead of print] PubMed PMID: 28406865.

175: Sriranga R, Pawar S, Khot W, Nischal N, Soneja M, Venkatesh HA, Nair RR, Kanna R, Sharma MC, Sharma SK. Isolated Renal Mucormycosis. J Assoc Physicians India. 2017 Apr;65(4):77-81. PubMed PMID: 28527169.

Mucormycosis in humans has been described as early as 1885 in literature. Isolated renal mucormycosis is rare as it has been mainly described in developing countries like India and China. It is rarer still to find this entity in immunocompetent young males without any risk factors. Specific guidelines on the

treatment is not yet known but combined surgical and medical therapy is considered the best modality for its management. We describe a young male who presented with bilateral hydroureteronephrosis. He was initially treated as a case renal tuberculosis which is relatively more common in TB endemic country like ours. However when he did not respond to the anti-tuberculosis drug (ATT), a biopsy revealed mucormycosis. He was treated with nephrectomy and liposomal amphotericin B and oral posaconazole. On follow up of 2 years he is healthy and leading his normal life.

PMID: 28527169

176: Steinkellner H, Singh HN, Muckenthaler MU, Goldenberg H, Moganty RR, Scheiber-Mojdehkar B, Sturm B. No changes in heme synthesis in human FriedreichÂ´s ataxia erythroid progenitor cells. Gene. 2017 Jul 20;621:5-11. doi: 10.1016/j.gene.2017.04.014. Epub 2017 Apr 12. PubMed PMID: 28412459.

Friedreich's ataxia (FRDA) is a neurodegenerative disease caused by reduced expression of the protein frataxin. Frataxin is thought to play a role in iron-sulfur cluster biogenesis and heme synthesis. In this study, we used erythroid progenitor stem cells obtained from FRDA patients and healthy donors to investigate the putative role, if any, of frataxin deficiency in heme synthesis. We used electrochemiluminescence and qRT-PCR for frataxin protein and mRNA quantification. We used atomic absorption spectrophotometry for iron levels and a photometric assay for hemoglobin levels. Protoporphyrin IX and Ferrochelatase were analyzed using auto-fluorescence. An "IronChip" microarray analysis followed by a protein-protein interaction analysis was performed. FRDA patient cells showed no significant changes in iron levels, hemoglobin synthesis, protoporphyrin IX levels, and ferrochelatase activity. Microarray analysis presented 11 genes that were significantly changed in all patients compared to controls. The genes are especially involved in oxidative stress, iron homeostasis and angiogenesis. The mystery about the involvement of frataxin on iron metabolism raises the question why frataxin deficiency in primary FRDA cells did not lead to changes in biochemical parameters of heme synthesis. It seems that alternative pathways can circumvent the impact of frataxin deficiency on heme synthesis. We show for the first time in primary FRDA patient cells that reduced frataxin levels are still sufficient for heme synthesis and possibly other mechanisms can overcome reduced frataxin levels in this process. Our data strongly support the fact that so far no anemia in FRDA patients was reported.

DOI: 10.1016/j.gene.2017.04.014
PMID: 28412459 [Indexed for MEDLINE]

177: Subramanian K, Sarkar S, Kattimani S. Bipolar disorder in Asia: Illness course and contributing factors. Asian J Psychiatr. 2017 Oct;29:16-29. doi: 10.1016/j.ajp.2017.04.009. Epub 2017 Apr 19. Review. PubMed PMID: 29061417.

BACKGROUND: Epidemiological studies analysing the course of Bipolar Disorder (BD) are relatively rare in the Asian context, contributing to the uncertainty regarding the prevalent course patterns and factors influencing such patterns. The current review identifies the regional characteristics of BD course patterns and the associated factors.
METHODS: A review of the existing literature was done using 'PubMed' and 'Cochrane' databases which yielded 145 studies including those from all 48 Asian countries. Relevant discussions from the Western literature were incorporated.
RESULTS: Regional and cross-national studies reveal a mania-predominant course in BD in Asian countries. Prolonged depressive episodes and comorbid anxiety disorders worsen the course of BD-II. Certain risk factors such as the young age of onset and greater episode frequency are useful predictors of bipolar

diatheses. Substance use disorder comorbidity is more prevalent in males whereas depression and suicidal behaviours are more frequent in females with BD. Comorbid anxiety and personality disorders also encumber the illness course. Logistic reasons and ignorance of side-effects were specifically associated with poor adherence. An 'eveningness' chronotype and poor sleep quality were associated with frequent recurrences. Seasonal patterns vary among men and women, especially for depressive episodes.
LIMITATIONS: The effects of treatment and childhood BD course features were not discussed.
CONCLUSIONS: There are region-specific characteristics in bipolar illness course and factors influencing such course patterns compared to the rest of the World. Future research from Asia shall attempt to study the neurobiological underpinnings of such characteristics and plan appropriate strategies to address the same.

DOI: 10.1016/j.ajp.2017.04.009
PMID: 29061417

178: Takkar B, Azad SV, Gangwe AB. Successful management of choroidal neovascular membrane secondary to choroidal osteoma with intravitreal bevacizumab. Saudi J Ophthalmol. 2017 Apr-Jun;31(2):120-121. doi: 10.1016/j.sjopt.2017.02.003. Epub 2017 Feb 14. PubMed PMID: 28566982; PubMed Central PMCID: PMC5436376.

179: Takkar B, Roy S, Sodhi PK, Azad S, Bajwa GS. Peripheral choroidal neovascular membrane in a case of peripheral exudative hemorrhagic chorioretinopathy managed with combination therapy. Int Ophthalmol. 2017 Apr;37(2):429-431. doi: 10.1007/s10792-016-0277-5. Epub 2016 Jun 16. PubMed PMID: 27312539.

To report a case of peripheral exudative hemorrhagic chorioretinopathy (PEHCR) associated with extramacular choroidal neovascular membrane (CNVM). A 65-year-old female with BCVA of 3/60 in the RE was diagnosed to have PEHCR with peripheral CNVM. She had subretinal fluid in the macular region. The patient was treated successfully with a single dose of intravitreal bevacizumab followed by laser photocoagulation of the CNVM. BCVA was 6/24 after 3 months and subretinal fluid had resolved. PEHCR may be associated with extramacular CNVM and hence may cause visual loss. Such extramacular CNVMs respond well to combination therapy which offers a permanent cure.

DOI: 10.1007/s10792-016-0277-5
PMID: 27312539 [Indexed for MEDLINE]

180: Talwar S, Kumar MV, Nehra A, Malhotra Kapoor P, Makhija N, Sreenivas V, Choudhary SK, Airan B. Bidirectional Glenn on cardiopulmonary bypass: A comparison of three techniques. J Card Surg. 2017 May;32(5):303-309. doi: 10.1111/jocs.13123. Epub 2017 Apr 9. PubMed PMID: 28393444.

OBJECTIVE: To analyze the intraoperative and early results of the bidirectional Glenn (BDG) procedure performed on cardiopulmonary bypass (CPB) using three different techniques.
METHODS: Between September 2013 and June 2015, 75 consecutive patients (mean age 42 ± 34.4 months) undergoing BDG were randomly assigned to either technique I: open anastomosis or technique II: superior vena cava (SVC) cannulation or technique III: intermittent SVC clamping. We monitored the cerebral near infrared spectrophotometry (NIRS), SVC pressure, CPB time, intensive care unit (ICU) stay, and neurocognitive function.
RESULTS: Patients in technique III had abnormal lower NIRS values during the procedure (57 ± 7.4) compared to techniques I and II (64 ± 7.5 and 61 ± 8.0, P = 0.01). Postoperative SVC pressure in technique III was higher than other two groups (17.6 ± 3.7 mmHg vs. 14.2 ± 3.5 mmHg and 15.3 ± 2.0 mmHg in techniques I

and II, respectively=0.0008). CPB time was highest in technique II (44±18min) compared to techniques I and III (29±14min and 38±16min, P=0.006), respectively. ICU stay was longer in technique III (30±15h) compared to the other two techniques (22±8.5h and 27±8.3h in techniques I and II, respectively=0.04). No patient experienced significant neurocognitive dysfunction.
CONCLUSION: All techniques of BDG provided acceptable results. The open technique was faster and its use in smaller children merits consideration. The technique of intermittent clamping should be used as a last resort.

DOI: 10.1111/jocs.13123
PMID: 28393444 [Indexed for MEDLINE]

181: Talwar S, Kapoor PM, Narula J, Keshri VK, Choudhary SK, AIran B. Right-to-left shunting through the unidirectional valved patch after closure of ventricular septal defect. Ann Card Anaesth. 2017 Apr-Jun;20(2):243-244. doi: 10.4103/aca.ACA_43_17. PubMed PMID: 28393787; PubMed Central PMCID: PMC5408532.

Postoperative transesophageal echocardiography images of a patient undergoing unidirectional valved patch closure of ventricular septal defect in the setting of severe pulmonary hypertension are presented. The images and videos elegantly demonstrate a functioning valve without any obstruction to the left ventricular outflow.

DOI: 10.4103/aca.ACA_43_17
PMCID: PMC5408532
PMID: 28393787

182: Tandon V, Garg K, Suri A, Garg A. Clival defect causing primary spontaneous rhinorrhea. Asian J Neurosurg. 2017 Apr-Jun;12(2):328-330. doi: 10.4103/1793-5482.144202. PubMed PMID: 28484567; PubMed Central PMCID: PMC5409403.

Primary cerebrospinal fluid (CSF) rhinorrhea due to a defect in clivus is an extremely rare entity, till date only four such cases are reported in the world literature. We present a case of 55-year-old female who presented with primary spontaneous CSF rhinorrhea, for which endonasal surgery was performed about 9 years back. Patient developed recurrent CSF leak with a history of meningitis. Repeat imaging showed clival defect causing CSF leak. Transsphenoidal repair was performed under neuronavigation. In this paper, we discuss the possible mechanism of fistula formation and literature is reviewed.

DOI: 10.4103/1793-5482.144202
PMCID: PMC5409403
PMID: 28484567

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

183: Tarique M, Naqvi RA, Ali R, Khanna N, Rao DN. CD4(+) TCRÎ³Î´(+) FoxP3(+) cells: An unidentified population of immunosuppressive cells towards disease progression leprosy patients. Exp Dermatol. 2017 Oct;26(10):946-948. doi: 10.1111/exd.13302. Epub 2017 Apr 2. PubMed PMID: 28109171.

This study, for the first time, reveals the role of M. leprae-specific CD4(+) TCRγδ(+) FoxP3(+) cells in the progression and pathogenesis of leprosy. Co-culture with CD4(+) CD25(-) cells suggested the immunosuppressive nature of CD4(+) TCRγδ(+) cells in dose-dependent manner. Isolation of CD4(+) TCRγδ(+) cells from leprosy patients and then culture in presence of M. leprae cell wall antigens (MLCwA) along with TGF β, IPP and IL-2 suggested that these cells are M. leprae specific. TGF-β-mediated SMAD3 signalling was turned out to be major factor towards the expression of FoxP3 in these cells. SMAD3 silencing during

induction of these cells barely showed the induction of FoxP3. High density of SMAD3 binding at TGFβRII in CD4(+) TCRγδ(+) FoxP3(+) furthermore suggested the TGF-β-directed SMAD3 signalling in these cells. Taken together the above data, we can conclude that CD4(+) TCRγδ(+) FoxP3(+) cells possess the potential to track the severity of the disease in leprosy patients.

DOI: 10.1111/exd.13302
PMID: 28109171

184: Taywade SK, Damle NA, Tripathi M, ArunRaj ST, Passah A, Malhi AS, Kumar S, Bal C. Unusual Presentation of Rare Cardiac Tumor: The Role of F-18-Fluorodeoxyglucose Positron Emission Tomography/Computed Tomography. Indian J Nucl Med. 2017 Apr-Jun;32(2):157-158. doi: 10.4103/0972-3919.202233. PubMed PMID: 28533653; PubMed Central PMCID: PMC5439190.

Primary cardiac tumors are rare with angiosarcoma being the most common among malignant cardiac tumor. We present a case of 30-year-old female patient in whom F-18-fluorodeoxyglucose positron emission tomography/computed tomography demonstrated a necrotic mass in right atrium with multiple fluorodeoxyglucose avid lesions in both upper and lower alveolus, liver, multiple bones, and bilateral lungs. Patient underwent biopsy from gum swelling which revealed metastatic angiosarcoma.

DOI: 10.4103/0972-3919.202233
PMCID: PMC5439190
PMID: 28533653

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

185: Thacker N, Bakhshi S, Chinnaswamy G, Vora T, Prasad M, Bansal D, Agarwala S, Kapoor G, Radhakrishnan V, Laskar S, Kaur T, Rath GK, Dhaliwal RS, Arora B. Management of Non-Hodgkin Lymphoma: ICMR Consensus Document. Indian J Pediatr. 2017 May;84(5):382-392. doi: 10.1007/s12098-017-2318-0. Epub 2017 Apr 5. PubMed PMID: 28378140.

Hitherto poor outcomes, paucity of data and heterogeneity in International approach to Pediatric NHL (Non-Hodgkin Lymphoma) prompted the need for guidelines for Indian population with vast variability in access, affordability and infrastructure across the country. These guidelines are based on consensus among the experts and best available evidence applicable to Indian setting. Evaluation of NHL should consist of easily doable and rapid tissue diagnosis (biopsy or flow cytometry of peripheral blood/malignant effusions), St Jude/IPNHLSS (International Pediatric Non-Hodgkin Lymphoma Staging System) and risk grouping with CSF (Cerebro-spinal fluid), bone marrow, whole body imaging [CECT (Contrast enhanced computerized tomography) ± MRI (Magnetic resonance imaging)] and blood investigations for LDH (Lactate dehydrogenase), TLS (Tumor lysis syndrome) and organ functions. Life threatening complications like SVCS (Superior vena cava syndrome)/Mediastinal syndrome and TLS need to pre-empted and promptly managed. All children with poor general condition, co-morbidities, metabolic or obstructive complications should receive a steroid or chemotherapy pro-phase first. For mature B-NHL (B cell - Non-Hodgkin lymphoma), in centres with good infrastructure and methotrexate levels, FAB-LMB-96 (French-American-British/Lymphomes Malins B) or BFM (Berlin-Frankfurt-Münster)-NHL-95 protocols may be used. In centres with limited infrastructure and/or no methotrexate levels; CHOP (Cyclophosphamide-hydroxydaunomycin-oncovin-prednisolone) (early stage) or MCP (Multi-centre protocol)-842 [all stages except CNS (Central nervous system) disease] may be used. Patients with poor early response should have escalated therapy. High-Risk B-NHL will benefit with addition of Rituximab to standard chemotherapy. Radiotherapy (RT) is not warranted. For lymphoblastic lymphoma, in centres with good infrastructure and methotrexate levels, BFM-95 protocol may be

used. In centres with limited infrastructure and/or no methotrexate levels; modified MCP-841 with cytarabine, modified BFM-90 protocol with reduced-dose methotrexate or I-BFM 2009 protocol using Capizzi methotrexate may be considered. For ALCL (Anaplastic large cell lymphoma), in centres with good infrastructure and methotrexate levels, ALCL-99 protocol may be considered. In centres with limited infrastructure and/or no methotrexate levels; CHOP (limited-stage only), modified MCP-842 protocol or APO (Adriamycin-prednisolone-oncovin) regimen may be used.

DOI: 10.1007/s12098-017-2318-0
PMID: 28378140

186: Thukral A, Sankar MJ. Probiotics for prevention of suspected sepsis in low birthweight infants. Acta Paediatr. 2017 Apr;106(4):681. doi: 10.1111/apa.13704. Epub 2017 Jan 31. PubMed PMID: 28145021.

187: Tripathy K, Chawla R, Venkatesh P, Sharma YR, Vohra R. Ultrawide Field Imaging in Uveitic Non-dilating Pupils. J Ophthalmic Vis Res. 2017 Apr-Jun;12(2):232-233. doi: 10.4103/2008-322X.205360. PubMed PMID: 28540019; PubMed Central PMCID: PMC5423381.

188: Tripathy K, Chawla R, Sarkar S. Girl with polydactyly and pigmentary retinopathy. J Paediatr Child Health. 2017 Apr;53(4):424. doi: 10.1111/jpc.1_13323. PubMed PMID: 28370859.

189: Tripathy S, Mukherjee A, Bal C, Tripathi M, Mallick S, Shamim SA. Primary Germ Cell Tumor of Testes with Extensive Lymph Nodal and Splenic Metastases Masquerading Lymphoma on (18-)F-FDG PET/CT. Indian J Nucl Med. 2017 Apr-Jun;32(2):153-154. doi: 10.4103/0972-3919.202243. PubMed PMID: 28533651; PubMed Central PMCID: PMC5439192.

Germ cell tumors (GCT) account for the 95% of the malignancies associated with testes. They are the most common solid malignancies affecting the males in the age group of 15-35 years. It is known to be bilateral in 3% of cases. We herein present FDG PET-CT findings of a case with biopsy proven GCT with multiple lymph nodal and splenic metastases mimicking lymphomatous neoplasm.

DOI: 10.4103/0972-3919.202243
PMCID: PMC5439192
PMID: 28533651

Conflict of interest statement: There are no conflicts of interest

190: Valakada J, Madhusudhan KS, Ranjan G, Garg PK, Sharma R, Gupta AK. Abdominal Lymphangiomatosis With Intestinal Lymphangiectasia Diagnosed by Magnetic Resonance Lymphangiography: A Case Report. Curr Probl Diagn Radiol. 2017 Apr 12. pii: S0363-0188(17)30023-3. doi: 10.1067/j.cpradiol.2017.04.006. [Epub ahead of print] PubMed PMID: 28554788.

191: Vallonthaiel AG, Agarwal S, Jain D, Yadav R, Damle NA. Cytological features of warthin-like papillary thyroid carcinoma: A case report with review of previous cytology cases. Diagn Cytopathol. 2017 Sep;45(9):837-841. doi: 10.1002/dc.23739. Epub 2017 Apr 27. PubMed PMID: 28449420.

Warthin-like papillary thyroid carcinoma (WLPTC) is a rare morphological variant of papillary thyroid carcinoma which mimics various benign and malignant lesions on thyroid aspiration cytology. As correct cytological diagnosis is the cornerstone for appropriate patient management, awareness of the salient cytomorphological characteristics of this tumor is essential. Here, we present

cytological features of a case of WLPTC along with discussion of the common differential diagnoses and a brief review of the literature to ascertain the most consistent cytological findings of WLPTC. The present case also harboured BRAFV600E mutation which is the commonest molecular alteration seen in WLPTC.

DOI: 10.1002/dc.23739
PMID: 28449420

192: Venkatesh P, Selvan H, Singh SB, Gupta D, Kashyap S, Temkar S, Gogia V, Tripathy K, Chawla R, Vohra R. Vitreous Amyloidosis: Ocular, Systemic, and Genetic Insights. Ophthalmology. 2017 Jul;124(7):1014-1022. doi: 10.1016/j.ophtha.2017.03.011. Epub 2017 Apr 12. PubMed PMID: 28412068.

PURPOSE: To report the unique clinical and surgical characteristics encountered in eyes with vitreous amyloidosis. Systemic evaluation and visual outcome after vitrectomy are discussed. A novel mutation in the transthyretin gene (TTR) in Indian patients with familial amyloid polyneuropathy (FAP) is described.
DESIGN: Retrospective, observational study.
PARTICIPANTS: Ten eyes of 5 patients from 2 pedigrees with a diagnosis of vitreous amyloidosis.
METHODS: Detailed history, pedigree charting, systemic and ocular examination of 10 eyes (5 patients from 2 pedigrees) were carried out. Tests were performed to rule out vitreitis, retinal vasculitis, vitreous hemorrhage, and systemic amyloidosis. Genetic analysis to identify the mutation was performed in 1 patient. Vitreous biopsy, followed by 25-gauge pars plana vitrectomy, was performed in the same sitting in all cases. Samples were sent for Congo red staining and polarized microscopy. Patients were followed up on days 1, 7, and 28 and then every 2 months. Visual acuity assessment, intraocular pressure measurement, and fundus examination were performed each time.
MAIN OUTCOME MEASURES: Mutations in TTR and postoperative visual acuity.
RESULTS: Mean age at presentation was 32 years, with a 3:2 male-to-female distribution. Family history was positive in all patients. Nine eyes had pseudopodia lentis, whereas all 10 had glass wool-like vitreous. Glaucoma developed in 1 patient (2 eyes). Waxy paper-like vitreous with firm vitreous adhesions beyond major arcades and along retinal vessels was noted during surgery in all eyes. Congo red staining and apple green birefringence demonstrated vitreous amyloidosis. The mean preoperative best-corrected visual acuity (BCVA) was 1.39±0.64 logarithm of the minimum angle of resolution (logMAR), whereas the postoperative BCVA improved to 0.17±0.07 logMAR (P = 0.004). Gene sequencing revealed a phenylalanine→isoleucine mutation in the 33rd position of exon 2 of TTR in 1 patient of 1 pedigree, confirming the diagnosis of FAP. Two patients subsequently were found to have sensorimotor autonomic neuropathy, whereas 2 others had subclinical autonomic dysfunction.
CONCLUSIONS: The clinical clues, management strategy, surgical characteristics, vitrectomy outcomes, and significance of systemic evaluation in vitreous amyloidosis are highlighted. A novel single mutation (Phe33Ile) in a case of FAP with vitreous amyloidosis from India is reported.

DOI: 10.1016/j.ophtha.2017.03.011
PMID: 28412068 [Indexed for MEDLINE]

193: Venkatesh P. Re: Wells etÂ al.: Aflibercept, Bevacizumab, or Ranibizumab for diabetic macular edema: two year results from a comparative effectiveness randomized clinical trial (Ophthalmology. 2016;123:1351-1359). Ophthalmology. 2017 Apr;124(4):e37-e38. doi: 10.1016/j.ophtha.2016.08.034. PubMed PMID: 28335948.

194: Verma P, Bhoi S, Baitha U, Sinha TP, Mishra PR. Gender-based Assessment of Survival in Trauma-hemorrhagic Shock: A Retrospective Analysis of Indian Population. Indian J Crit Care Med. 2017 Apr;21(4):218-223. doi: 10.4103/ijccm.IJCCM_304_16. PubMed PMID: 28515606; PubMed Central PMCID: PMC5416789.

INTRODUCTION: Trauma-hemorrhagic shock (THS) is a leading cause of death. Female rats and women experience better outcomes in terms of survival after major trauma as compared to males. There are limited data in Indian population. Authors studied the gender-based outcome of patients with Class IV hemorrhagic shock due to blunt trauma and the distribution of factors among males and females which are known to affect outcome.
MATERIALS AND METHODS: It was a retrospective study with data of trauma victims between January 2008 and July 2013. Road traffic crash (RTC), fall, or assault of all ages with Class IV hemorrhagic shock on arrival was included in the study, and data were collected on demographic, clinical, and laboratory parameters. Drowning, burns, penetrating injuries, and septic, neurogenic, and cardiogenic shock were excluded from the study.
RESULTS: Seven hundred and eighty-one patients were analyzed under three groups: (i) overall group including all patients (n = 781), (ii) male group (n = 609), and (iii) female group (n = 172). After adjusting all variables, mortality was significantly lower in females as compared to males following THS ($P < 0.05$). Age, blood pressure, pulse, male gender, and fall and RTC as mode of injury (MOI) were independent predictors of mortality ($P < 0.05$) in overall group. Among males, age, pulse, and RTC as a MOI were significant ($P < 0.05$), while in females, only systolic blood pressure (SBP) was independent predictor of mortality.
CONCLUSION: Females had better survival as compared to males following THS. SBP was an independent predictor of mortality in females with THS.

DOI: 10.4103/ijccm.IJCCM_304_16
PMCID: PMC5416789
PMID: 28515606

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

195: Walton-Roberts M, Runnels V, Rajan SI, Sood A, Nair S, Thomas P, Packer C, MacKenzie A, Tomblin Murphy G, LabontÃ© R, Bourgeault IL. Causes, consequences, and policy responses to the migration of health workers: key findings from India. Hum Resour Health. 2017 Apr 5;15(1):28. doi: 10.1186/s12960-017-0199-y. PubMed PMID: 28381289; PubMed Central PMCID: PMC5382411.

BACKGROUND: This study sought to better understand the drivers of skilled health professional migration, its consequences, and the various strategies countries have employed to mitigate its negative impacts. The study was conducted in four countries-Jamaica, India, the Philippines, and South Africa-that have historically been "sources" of health workers migrating to other countries. The aim of this paper is to present the findings from the Indian portion of the study.
METHODS: Data were collected using surveys of Indian generalist and specialist physicians, nurses, midwives, dentists, pharmacists, dieticians, and other allied health therapists. We also conducted structured interviews with key stakeholders representing government ministries, professional associations, regional health authorities, health care facilities, and educational institutions. Quantitative data were analyzed using descriptive statistics and regression models. Qualitative data were analyzed thematically.
RESULTS: Shortages of health workers are evident in certain parts of India and in certain specialty areas, but the degree and nature of such shortages are difficult to determine due to the lack of evidence and health information. The relationship of such shortages to international migration is not clear. Policy responses to health worker migration are also similarly embedded in wider processes aimed at health workforce management, but overall, there is no clear policy agenda to manage health worker migration. Decision-makers in India present

conflicting options about the need or desirability of curtailing migration. CONCLUSIONS: Consequences of health work migration on the Indian health care system are not easily discernable from other compounding factors. Research suggests that shortages of skilled health workers in India must be examined in relation to domestic policies on training, recruitment, and retention rather than viewed as a direct consequence of the international migration of health workers.

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PMCID: PMC5382411
PMID: 28381289 [Indexed for MEDLINE]

196: Wari MN, Vallonthaiel AG, Ahmed A, Saxena D, Iyer VK, Mathur SR, Agarwala S, Bakhshi S, Srinivas V, Chattopadhyaya P, Sharma A, Gupta SD, Dinda A. Glypican-3 mRNA expression level in Wilms tumor: correlation with histological type, stage, and outcome. Pediatr Surg Int. 2017 Jun;33(6):695-703. doi: 10.1007/s00383-017-4087-2. Epub 2017 Apr 21. PubMed PMID: 28432433.

PURPOSE: To correlate expression of Glypican-3 in Wilms tumor with histopathology, stage, and outcome.
METHODS: Glypican-3 mRNA expression by real-time PCR on tumor and normal germline samples from 75 fresh nephrectomies for Wilms tumor with fold change after normalization against GAPDH was compared. Survival analysis for event-free and overall survival (EFS, OS) with 2-year follow-up for Glypican-3 overexpression (>1.5 times) and clinicopathological parameters was performed.
RESULTS: Glypican-3 was overexpressed in 37/75 (49.3%). It was overexpressed in 77% (10/13) cases with blastema predominance or anaplastic histology, as compared to 44% of other histologies (27/62) (p = 0.03). OS was 73 and 93%, respectively (p = 0.016), for those with and without GPC-3 overexpression. EFS was not significantly different with Glypican-3 overexpression (p = 0.11). All 5 deaths among blastema predominant tumors and 4/5 deaths among triphasic tumors had overexpressed Glypican-3. Most deaths in Stage IV, Stage III, and Stage I + II (5/7, 3/3, 1/1) had GPC-3 overexpression. On multivariate analysis, only histology and stage were found to have independent prognostic value.
CONCLUSION: Glypican-3 overexpression in Wilms tumor correlates with poor OS on univariate analysis. However, only histology and stage have independent prognostic value. Glypican-3 levels may help to stratify intermediate outcome histology (triphasic) and Stage III Wilms tumors.

DOI: 10.1007/s00383-017-4087-2
PMID: 28432433

197: Yadav R, Jaryal AK, Mallick HN. Participation of preoptic area TRPV4 ion channel in regulation of body temperature. J Therm Biol. 2017 May;66:81-86. doi: 10.1016/j.jtherbio.2017.04.001. Epub 2017 Apr 6. PubMed PMID: 28477913.

Transient receptor potential vanilloid 4 (TRPV4) ion channel is a non-selective cation channel and its role in cutaneous thermosensation is emerging. It is expressed in many areas of the brain including the preoptic area (POA)/anterior hypothalamus which is the key neural site for thermoregulation. The present study was conducted to find out the role of TRPV4 ion channel in the POA in thermoregulation. Rats preimplanted with guide cannulae with indwelling styli 2.0mm above the POA received TRPV4 agonist/antagonist/isotonic saline injections bilaterally in the POA using an injector cannula in three separate groups of six rats each. Body temperature (Tb) was recorded telemetrically by preimplanted radio transmitter in the peritoneal cavity. The injection of TRPV4 agonist (GSK1016790A) in the POA decreased Tb while its antagonist (RN1734) increased Tb. Immunohistochemical localization showed presence of TRPV4 ion channel in the POA. The results of the present study suggest that TRPV4 ion channels in the POA may play an important role in thermoregulation.

DOI: 10.1016/j.jtherbio.2017.04.001
PMID: 28477913

198: Yadav S, Singh P, Hemal A, Kumar R. Genital tuberculosis: current status of diagnosis and management. Transl Androl Urol. 2017 Apr;6(2):222-233. doi: 10.21037/tau.2016.12.04. Review. PubMed PMID: 28540230; PubMed Central PMCID: PMC5422679.

Genitourinary Tuberculosis (GUTB) is the second most common extra-pulmonary manifestation of tuberculosis (Tb) and an isolated involvement of genital organs is reported in 5-30% of the cases. Genital involvement results from primary reactivation of latent bacilli either in the epididymis or the prostate or by secondary spread from the already infected urinary organs. The epididymis are the commonest involved organs affected primarily by a hematogenous mode of spread. Tb is characterized by extensive destruction and fibrosis, thus an early diagnosis may prevent function and organ loss. The gold standard for diagnosis is the isolation and culture of mycobacterium tuberculosis bacilli and in the cases of suspected GUTB, it is commonly looked for in the urinary samples. All body fluid specimens from possible sites of infection and aspirates from nodules must also be subjected to examination. Radiologic investigations including ultrasonography and contrast imaging may provide supportive evidence. Anti-tubercular chemotherapy is the first line of management for all forms of genital Tb and a 6 months course is the standard of care. Most patients with tubercular epididymo-orchitis respond to antitubercular therapy but may require open or percutaneous drainage. Infertility resulting from the tubercular affliction of the genitalia is multifactorial in origin and may persist even after successful chemotherapy. Multiple organ involvement with obstruction at several sites is characteristic and most of these cases are not amenable to surgical reconstruction. Thus, assisted reproduction is usually required. Post treatment, regular annual follow up is recommended even though, with the current multi drug therapy, the chances of relapse are low.

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PMCID: PMC5422679
PMID: 28540230

Conflict of interest statement: Conflicts of Interest: The authors have no conflicts of interest to declare.

199: Yenamandra VK, Vellarikkal SK, Kumar M, Chowdhury MR, Jayarajan R, Verma A, Scaria V, Sivasubbu S, Ray SB, Dinda AK, Kabra M, Kaur P, Sharma VK, Sethuraman G. Application of whole exome sequencing in elucidating the phenotype and genotype spectrum of junctional epidermolysis bullosa: A preliminary experience of a tertiary care centre in India. J Dermatol Sci. 2017 Apr;86(1):30-36. doi: 10.1016/j.jdermsci.2016.12.020. Epub 2016 Dec 29. PubMed PMID: 28087116.

BACKGROUND: Junctional epidermolysis bullosa (JEB) is a diverse group of genodermatoses associated with extreme skin fragility. Despite several well-characterized genetic studies, molecular diagnosis of this heterogeneous group is still challenging. Recent advances in the field of genomics have seen the successful implementation of whole exome sequencing (WES) as a fast and efficient diagnostic strategy in several genodermatoses.
OBJECTIVE: In view of the scarcity and need of molecular studies for JEB in India, we sought to explore the potential of WES in understanding the mutational spectrum of this rare, in certain subtypes lethal, sub-group of EB.
METHODS: WES was performed using genomic DNA from each case of EB, followed by massively parallel sequencing. Resulting reads were mapped to the human reference genome hg19. Sanger sequencing subsequently confirmed the potentially pathogenic mutations.
RESULTS: Overall, four unrelated families (6 patients) of JEB with a highly variable clinical presentation including a rare case of LOC syndrome were studied. WES revealed 4 variations in 3 genes (LAMA3, LAMB3 and COL17A1) that are implicated in JEB. None of the variations were recurrent. In addition we proposed

the probable molecular consequence of a missense mutation on the structure-function relationship of lamininβ3 protein through computational modeling studies.
CONCLUSIONS: Being the first report documenting the phenotype-genotype correlations of JEB patients from India, our preliminary experience with WES is clearly encouraging and serves as a nidus for future large-scale molecular studies to actively identify and understand JEB patients in Indian population.

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