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List of publications of AIIMS, New Delhi
for the month of June, 2016
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1: Agarwal R. Erratum to: World Health Organization Guidelines for Feeding Low Birth Weight Infants: Effects of Implementation in First Referral Level Health Facilities in India : Investigators of WHO LBW Feeding Study Group, Delhi, India. *Indian J Pediatr.* 2016 Jun;83(6):529. PubMed PMID: 27048194.

2: Aggarwal S, Das SN. Garcinol inhibits tumour cell proliferation, angiogenesis, cell cycle progression and induces apoptosis via NF- κ B inhibition in oral cancer. *Tumour Biol.* 2016 Jun;37(6):7175-84. doi: 10.1007/s13277-015-4583-8. PubMed PMID: 26662963.

Garcinol, a polyisoprenylated benzophenone is extracted from the rind of the fruit of *Garcinia indica*, a plant found extensively in tropical regions. Its ability to inhibit tumour growth has been demonstrated in certain cancers. In this study, we evaluated the potential anti-tumour effects of garcinol on oral squamous cell carcinoma (OSCC) cells. Three OSCC cell lines (SCC-4, SCC-9 and SCC-25) were treated with garcinol for 48 h and its effect on growth and proliferation, clonogenic survival, cell cycle and apoptosis was studied by MTT, clonogenic assay, propidium iodide (PI) staining and annexin-V binding assay, respectively. The alteration in expression of NF- κ B and COX-2 was studied by western blot analysis and that of VEGF by ELISA. Garcinol treatment significantly ($p < 0.001$) inhibited the growth and proliferation and colony formation of OSCC cells with a concomitant induction of apoptosis and cell cycle arrest. It did not show toxic effect on normal cells. It significantly ($p < 0.05$) reduced the expression of NF- κ B and COX-2 expression in treated cells as compared to untreated controls besides inhibiting VEGF expression. It appears that garcinol exerts anti-proliferative, pro-apoptotic, cell-cycle regulatory and anti-angiogenic effects on oral cancer cells through inhibition of NF- κ B and COX-2. Thus, garcinol may be developed as a potential chemopreventive and/or chemotherapeutic agent for treatment of oral squamous cell carcinoma.

DOI: 10.1007/s13277-015-4583-8

PMID: 26662963 [PubMed - in process]

3: Anand LK, Goel N, Singh M, Kapoor D. Comparison of the Supreme and the ProSeal laryngeal mask airway in patients undergoing laparoscopic cholecystectomy: A randomized controlled trial. *Acta Anaesthesiol Taiwan.* 2016 Jun;54(2):44-50. doi: 10.1016/j.aat.2016.03.001. PubMed PMID: 27106162.

OBJECTIVE: The single-use LMA Supreme (Teleflex, Inc., Wayne, PA, USA) and the LMA ProSeal (Teleflex, Inc., Wayne, PA, USA) laryngeal mask airway (LMA) have similar characteristics. To date, studies have not achieved a consensus regarding the oropharyngeal leak pressure (OLP) of the LMA Supreme and LMA ProSeal, and there is little information on their efficacy in laparoscopic cholecystectomy. This study compared the safety and efficacy of the LMA Supreme and LMA ProSeal devices in patients undergoing laparoscopic cholecystectomy.

METHOD: Eighty-four eligible consenting patients were randomly allocated to the LMA Supreme group or the LMA ProSeal group. Both groups received the standard anesthesia technique. The Supreme or ProSeal LMA was inserted, the cuff was inflated to 60 cmH₂O, and the LMA position was confirmed. Anesthesia was maintained using propofol and 50% oxygen in air. A gastric tube was inserted through the drain tube of the LMA to deflate the stomach, and the first attempt success rate and insertion time were recorded. During surgery, the intra-abdominal pressure was maintained at 12 mmHg. The fiberoptic view of the larynx was determined by passing a flexible fiberoptic bronchoscope. The OLPs, success rate, insertion time, hemodynamic and respiratory parameters, and complications were recorded at different time points.

RESULTS: The mean OLP was significantly lower in the LMA Supreme group than in the LMA ProSeal group (24.9 \pm 5.3 cmH₂O vs. 28.4 \pm 5.8 cmH₂O; $p < 0.01$). The

first attempt success rate and ease of insertion grading for LMA were higher in the Supreme group. The insertion time was lower in the Supreme group than in the ProSeal group ($p < 0.01$). The fiberoptic view was better with the ProSeal LMA. The hemodynamic and ventilatory parameters and postoperative sore throat were comparable in both groups.

CONCLUSION: The LMA ProSeal has a higher OLP than the LMA Supreme. The success rate of first attempt insertion and ease of insertion were better for the LMA Supreme group and the insertion time was lower in the LMA Supreme group. The Supreme and ProSeal LMAs were both effective for positive pressure ventilation in laparoscopic cholecystectomy.

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PMID: 27106162 [PubMed - indexed for MEDLINE]

4: Angmo D, Wadhvani M, Velpandian T, Kotnal A, Sihota R, Dada T. Evaluation of physical properties and dose equivalency of generic versus branded latanoprost formulations. *Int Ophthalmol*. 2016 Jun 22. [Epub ahead of print] 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 [PubMed - as supplied by publisher]

5: Arora G, Dubey P, Shukla J, Ghosh S, Bandopadhyaya G. Evaluation of cytotoxic and tumor targeting capability of (177)Lu-DOTATATE-nanoparticles: a trailblazing strategy in peptide receptor radionuclide therapy. *Ann Nucl Med*. 2016 Jun;30(5):334-45. doi: 10.1007/s12149-016-1067-x. PubMed PMID: 26897009.

OBJECTIVE: We propose an innovative strategy of nanoparticle-mediated-peptide receptor radionuclide therapy (PRRT) employing PLGA-nanoparticles together with anti-β-hCG antibodies that can protect kidneys from radiation damage while simultaneously enhancing its tumor targeting and cytotoxic ability for somatostatin receptor (SSR) positive tumors.

METHODS: PEG-coated-(177)Lu-DOTATATE-PLGA-nanoparticles (PEG-LuD-NP) were formulated and characterized. In vitro toxicity of these particles was tested on human glioblastoma cell line U87MG over a radiation dose range of 19-78 Gy, using MTT assay and flow cytometry. To further enhance cytotoxicity and test the feasibility of active tumor targeting, apoptosis-inducing anti- β -hCG monoclonal antibodies were employed in vitro, after confirming expression of β -hCG on U87MG. In vivo tumor targeting ability of these particles, in comparison to uncoated particles and un-encapsulated (177)Lu-DOTATATE, was assessed by intravenous administration in tumor-induced wistar rats. Rats were first imaged in a gamma camera followed by euthanasia for organ extraction and counting in gamma counter. **RESULTS:** The particles were spherical in shape with mean diameter of 300 nm. Highest cytotoxicity that could be achieved with PEG-LuD-NP, on radio-resistant U87MG cells, was 35.8 % due to complex cellular response triggered by ionizing radiation. Interestingly, synergistic action of antibodies and PEG-LuD-NP doubled the cytotoxicity (80 %). PEG-LuD-NP showed the highest tumor uptake (4.3 ± 0.46 % ID/g) as compared to (177)Lu-DOTATATE (3.5 ± 0.31 %) and uncoated-(177)Lu-DOTATATE-nanoparticles (3.4 ± 0.35 %) in tumor-inoculated wistar rats ($p < 0.001$). Renal uptake/retention was decreased 3-4 folds with these particles, resulting in the highest tumor-to-kidney ratio (8.58; $p < 0.01$) while tumor-to-liver and tumor-to-bone ratios were comparable to un-encapsulated-drug. **CONCLUSION:** Nanocarrier-mediated-PRRT is an effective way of targeting SSR positive tumors for enhanced cytotoxicity and reduced renal radiation dose associated with conventional PRRT. To our knowledge of literature, this is the first study to establish in vitro and in vivo efficacy profile of nanoparticles in PRRT providing a stepping-stone for undergoing and future research endeavors in the direction of abating associated radiation concerns of radionuclide therapy and may offer a paradigm shift in PRRT strategy.

DOI: 10.1007/s12149-016-1067-x

PMID: 26897009 [PubMed - in process]

6: Arora P, Gupta SK, Mallik N, Mittal R, Sharma OD, Kumar L. Flow Cytometry in Diagnosis of Myelomatous Pleural Effusion: A Case Report. Indian J Hematol Blood Transfus. 2016 Jun;32(Suppl 1):138-42. doi: 10.1007/s12288-015-0589-z. PubMed PMID: 27408376; PubMed Central PMCID: PMC4925522.

Plasma cell myeloma is a multifocal plasma cell neoplasm associated with increased monoclonal protein in serum and/or urine. Pleural effusions in patients with myeloma are uncommon (6 %). However, effusions due to direct infiltration of the pleura by plasma cells (myelomatous pleural effusion) are extremely rare (<1 %) and usually seen with IgA myeloma. The diagnosis of such cases requires pleural fluid cytology, electrophoresis or pleural biopsy. We present a case of myelomatous pleural effusion diagnosed using flow cytometry immunophenotyping in addition to the pleural fluid cytology. A 45 year old female was diagnosed as plasma cell myeloma (IgG kappa) in 2007. She received multiple lines of therapy during the course of her treatment including thalidomide, dexamethasone, lenalidomide, bortezomib, and doxorubicin based regimens. However, the patient had progressive extramedullary disease and developed pleural effusion in 2014. Cytological examination of the pleural fluid showed degenerative changes. Few preserved areas showed mononuclear cells including morphologically abnormal plasma cells. Immunophenotyping of these cells by flow cytometry revealed a pattern indicating neoplastic plasma cells. There was expression of CD38, CD138, and CD56, with absence of CD19, CD10 and CD45. This confirmed the diagnosis of myelomatous pleural effusion. Subsequently, the patient was offered a dexamethasone, cyclophosphamide, etoposide and cisplatin based regimen but, she declined further treatment and succumbed to her disease 3 months later. Myelomatous pleural effusion is a rare complication of plasma cell myeloma. Flow cytometry can be used as an adjunctive technique in its diagnosis particularly in cases with equivocal cytology and electrophoresis findings.

DOI: 10.1007/s12288-015-0589-z
PMCID: PMC4925522 [Available on 2017-06-01]
PMID: 27408376 [PubMed]

7: Arora T, Arora S, Sharma V. Early Deep Anterior Lamellar Keratoplasty (DALK) for Acanthamoeba Keratitis-How to Define Early? *Cornea*. 2016 Jun;35(6):e14. doi: 10.1097/ICO.0000000000000831. PubMed PMID: 27032028.

8: Azad SV, Takkar B, Venkatesh P, Kumar A. Swept source: optical coherence tomography angiography features of choroidal osteoma with choroidal neovascular membrane. *BMJ Case Rep*. 2016 Jun 2;2016. pii: bcr2016215899. doi: 10.1136/bcr-2016-215899. PubMed PMID: 27256999.

9: Banik S, Rath GP, Huygen FJ. Dexmedetomidine Infusion may Cause Agitation During Procedural Sedation. *Pain Pract*. 2016 Jun;16(5):E89. doi: 10.1111/papr.12434. PubMed PMID: 27260117.

10: Bansal PG, Toteja GS, Bhatia N, Vikram NK, Siddhu A. Impact of weekly iron folic acid supplementation with and without vitamin B12 on anaemic adolescent girls: a randomised clinical trial. *Eur J Clin Nutr*. 2016 Jun;70(6):730-7. doi: 10.1038/ejcn.2015.215. PubMed PMID: 26695724.

BACKGROUND/OBJECTIVES: In India, approx. 70% of the adolescent girls are anaemic (haemoglobin <120g/l). The present study was a supervised randomised double-blind clinical trial conducted among adolescent girls (11-18 years) to assess and compare the impact of weekly iron folic acid (IFA) supplementation with or without vitamin B12 on reduction in the prevalence of anaemia and on blood/serum levels of haemoglobin, serum ferritin, folic acid and vitamin B12. **SUBJECTS/METHODS:** Community-based randomized controlled trial was carried out in Kirti Nagar slums of West Delhi. A total of 446 mild (100-119g/l) and moderate (70-99g/l) anaemic volunteer adolescent girls were identified and randomised into two groups. Weekly supervised supplementation was given for 26 weeks: Group A (n=222): iron (100mg), folic acid (500mcg) and placebo; Group B (n=224): iron (100mg), folic acid (500mcg) and cyanocobalamin (500mcg for 6 weeks and 15mcg for 20 weeks). Haemoglobin, serum ferritin, folic acid and vitamin B12 levels were assessed at baseline and after intervention. A total of 373 subjects completed 26 weeks of supplementation successfully. **RESULTS:** The mean haemoglobin increased from 106.7±11.2g/l and 108.9±8.91g/l in Group A and Group B at baseline to 116.4±10.8g/l (P<0.001) and 116.5±10.26g/l (P<0.001) at post-intervention, respectively, with the reduction in the prevalence of anaemia by 35.9% in Group A and 39.7% in Group B (P>0.05). A total of 63.3% participants had deficient vitamin B12 levels (<203pg/ml) at baseline, which reduced to 40.4% after intervention with cyanocobalamin, whereas no change was observed in vitamin B12 status in the other group. Significant reduction (P=0.01) in the prevalence of serum ferritin deficiency (<15ng/ml) was observed in the group supplemented with vitamin B12 (from 36.5 to 6.4%) as compared with the other group supplemented with only IFA (from 39.1 to 15.2%). **CONCLUSIONS:** IFA supplementation with or without vitamin B12 is an effective measure to cure anaemia. Although addition of vitamin B12 had similar impact on improving haemoglobin status as IFA alone, it resulted in better ferritin status. Hence, more multi-centre studies with a longer duration of supplementation or higher dose of vitamin B12 may be undertaken to assess the possible impact of vitamin B12 on improving haemoglobin levels in the population.

DOI: 10.1038/ejcn.2015.215
PMID: 26695724 [PubMed - in process]

11: Bansal VK, Krishna A, Misra MC, Kumar S. Learning Curve in Laparoscopic Inguinal Hernia Repair: Experience at a Tertiary Care Centre. *Indian J Surg*. 2016

Jun;78(3):197-202. doi: 10.1007/s12262-015-1341-5. PubMed PMID: 27358514; PubMed Central PMCID: PMC4907907.

One of the major reasons for laparoscopy not having gained popularity for repair of groin hernia is the perceived steep learning curve. This study was conducted to assess the learning curve and to predict the number of cases required for a surgeon to become proficient in laparoscopic groin hernia repair, by comparing two laparoscopic surgeons. The learning curve evaluation parameters included operative time, conversions, intraoperative complications and postoperative complications, and these were compared between the senior and the junior surgeon. One hundred thirty-eight cases were performed by the senior surgeon, and 63 cases by the junior surgeon. Both were comparable in terms of intraoperative and postoperative complications. Using the moving average method, minimum of 13 laparoscopic hernia repairs are required to reach at par the operating time of an experienced surgeon. For total extraperitoneal (TEP) repair, the number of cases was 14; and for transabdominal preperitoneal (TAPP) repair, this number was 13.

DOI: 10.1007/s12262-015-1341-5
PMCID: PMC4907907 [Available on 2017-06-01]
PMID: 27358514 [PubMed]

12: Basak T, Tanwar VS, Bhardwaj G, Bhardwaj N, Ahmad S, Garg G, V S, Karthikeyan G, Seth S, Sengupta S. Plasma proteomic analysis of stable coronary artery disease indicates impairment of reverse cholesterol pathway. *Sci Rep.* 2016 Jun 28;6:28042. doi: 10.1038/srep28042. PubMed PMID: 27350024; PubMed Central PMCID: PMC4923873.

Coronary artery disease (CAD) is one of the largest causes of death worldwide yet the traditional risk factors, although useful in identifying people at high risk, lack the desired predictive accuracy. Techniques like quantitative plasma proteomics holds immense potential to identify newer markers and this study (conducted in three phases) was aimed to identify differentially expressed proteins in stable CAD patients. In the first (discovery) phase, plasma from CAD cases (angiographically proven) and controls were subjected to iTRAQ based proteomic analysis. Proteins found to be differentially expressed were then validated in the second and third (verification and validation) phases in larger number of (n=546) samples. After multivariate logistic regression adjusting for confounding factors (age, diet, etc.), four proteins involved in the reverse cholesterol pathway (Apo A1, ApoA4, Apo C1 and albumin) along with diabetes and hypertension were found to be significantly associated with CAD and could account for approximately 88% of the cases as revealed by ROC analysis. The maximum odds ratio was found to be 6.70 for albumin (p<0.0001), followed by Apo AI (5.07, p<0.0001), Apo CI (4.03, p=0.001), and Apo AIV (2.63, p=0.003). Down-regulation of apolipoproteins and albumin implicates the impairment of reverse cholesterol pathway in CAD.

DOI: 10.1038/srep28042
PMCID: PMC4923873
PMID: 27350024 [PubMed - in process]

13: Basu P, Bhatla N, Ngoma T, Sankaranarayanan R. Less than 3 doses of the HPV vaccine - Review of efficacy against virological and disease end points. *Hum Vaccin Immunother.* 2016 Jun 2;12(6):1394-402. doi: 10.1080/21645515.2016.1146429. PubMed PMID: 26933961; PubMed Central PMCID: PMC4964672.

World Health Organization (WHO) recommended 2 doses of the Human Papillomavirus (HPV) vaccine for girls below 15 y on the basis of the immune-bridging studies demonstrating non-inferior immune response of 2 doses in the adolescent girls compared to 3 doses in the young adult women in whom the efficacy against disease is established. The biological nature of the antigens (virus-like particles)

constituting the HPV vaccine is responsible for the vigorous antibody response that may make the third dose redundant. The protection offered by 2 doses has been demonstrated in non-randomized clinical trials to be comparable to that offered by 3 doses against incident and persistent infections of vaccine targeted HPV types. However, results emerging from the ecological and nested case-control studies embedded in the population based screening programs of different countries indicate reduced efficacy of 2 doses against virological and disease end points. Some recent studies observed the protective effect of single dose of the vaccine against incident and persistent infections of the vaccine targeted HPV types to be similar to 3 doses in spite of immunological inferiority. The sample size, duration of follow-ups and number of events were limited in these studies. Longer follow ups of the less than 3 doses cohorts in the ongoing studies as well as appropriately designed and ethically justifiable randomized studies are needed to establish the protection offered by the alternative schedules at least beyond 10 y of vaccination.

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PMCID: PMC4964672 [Available on 2017-03-02]

PMID: 26933961 [PubMed - in process]

14: Behera C, Sikary AK, Krishna K, Garg A, Chopra S, Gupta SK. Medico-legal autopsy of abandoned fetuses and newborns in India. *Med Leg J.* 2016 Jun;84(2):109-11. doi: 10.1177/0025817216631456. PubMed PMID: 26857075.

Foeticide and the abandonment of newborns are important, albeit frequently neglected, issues. Concealment of childbirth is often seen in the setting of unwanted pregnancy which has been recognised as one of the most important factors in both cases. This study highlights the medico-legal autopsy findings of 238 abandoned fetuses and newborns over a period of 17 years (1996-2012) from the region of South Delhi, India. There was no sex predilection. The majority of the cases were full term. Nearly 35% of the fetuses were still born, about 29% were live born and the remainder were non-viable. Among the live born, death by homicide was more common than a natural death and most were left by the roadside. The abandoning and killing of newborns needs urgent attention, and strict measures are needed to save thousands of innocent lives.

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DOI: 10.1177/0025817216631456

PMID: 26857075 [PubMed - in process]

15: Behera C, Chopra S, Garg A, Kumar R. Sulphuric acid marketed in water bottle in India: A cause for fatal accidental poisoning in an adult. *Med Leg J.* 2016 Jun;84(2):97-100. doi: 10.1177/0025817216629857. PubMed PMID: 26837566.

Corrosive acid ingestion is a rare but serious health hazard with fatal complications. Cases of suicidal and accidental acid ingestion have been documented in the scientific literature. Accidental acid poisoning due to a mistaken identity of the bottle containing sulphuric acid is a matter of grave concern especially in a household set-up. We hereby report a fatal case of accidental sulphuric acid ingestion in an adult, who unsuspectingly swallowed about 50ml of 'toilet-cleaner' at his residence. The bottle containing the acid was recently purchased from a local vendor and placed with water bottles in the kitchen. The autopsy and toxicological findings of this case are discussed in this paper with discussion of medico-legal issues on the sale and use of such corrosive acids in illegal bottles and its subsequent health hazards in India.

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PMID: 26837566 [PubMed - in process]

16: Bhakuni T, Sharma A, Ali MF, Mahapatra M, Saxena R, Jairajpuri MA. Identification of 2 Novel Polymorphisms and rs3138521 in 5' Untranslated Region of SERPINC1 Gene in North Indian Population With Deep Vein Thrombosis. Clin Appl Thromb Hemost. 2016 Jun 8. pii: 1076029616652725. [Epub ahead of print] PubMed PMID: 27279637.

Antithrombin III (AT) is the most important endogenous anticoagulant, and genetic variability in SERPINC1, gene encoding AT, is low. Mutations leading to AT deficiency and increased thrombotic risk are well known; however, only 2 studies have reported mutations in regulatory region of SERPINC1 gene till date. Aim of the present study was to identify genetic variations in SERPINC1 5' untranslated region (UTR) in Indian patients with deep vein thrombosis (DVT) having AT deficiency. DNA sequencing was used to identify underlying genetic defects in SERPINC1 regulatory region. In silico tools TFBIND and PROMO were used to identify transcription factor binding sites in the promoter region. We have identified 2 novel polymorphisms, g.25G>A and g.-1A>T, and 2 known g.67G>A and rs3138521 5' UTR polymorphisms in SERPINC1 regulatory region in Indian patients with DVT for the first time. In present study, allele frequencies of rs3138521 (S: 0.37 and F: 0.63) were similar to that reported in Western population and were not associated with low plasma AT levels (P value .5). This is the first report of regulatory region polymorphisms in SERPINC1 gene in Indian population. Our results strongly suggest that similar studies should be included when ever no mutation is detected in protein-coding region of AT gene.

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PMID: 27279637 [PubMed - as supplied by publisher]

17: Bhardwaj S, Passi SJ, Misra A, Pant KK, Anwar K, Pandey RM, Kardam V. Effect of heating/reheating of fats/oils, as used by Asian Indians, on trans fatty acid formation. Food Chem. 2016 Dec 1;212:663-70. doi: 10.1016/j.foodchem.2016.06.021. PubMed PMID: 27374582.

Heating/frying and reuse of edible fats/oils induces chemical changes such as formation of trans fatty acids (TFAs). The aim of this study was to investigate the effect of heating/frying on formation of TFAs in fats/oils. Using gas chromatography with flame ionisation detector, TFA was estimated in six commonly used fat/oils in India (refined soybean oil, groundnut oil, olive oil, rapeseed oil, clarified butter, partially hydrogenated vegetable oil), before and after subjecting them to heating/frying at 180°C and 220°C. All six fats/oils subjected to heating/frying demonstrated an increase in TFAs (p<0.001), saturated fatty acids (p<0.001) and decrease in cis-unsaturated fatty acids (p<0.001). The absolute increase in TFA content of edible oils (after subjecting to heating/reheating) ranged between 2.30±0.89g/100g and 4.5±1.43g/100g; amongst edible fats it ranged between 2.60±0.38g/100g and 5.96±1.94g/100g. There were no significant differences between the two treatment groups (heating and frying; p=0.892). Considering the undesirable health effects of TFA, appropriate guidelines for heating/re-frying of edible fats/oils by Asian Indians should be devised.

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PMID: 27374582 [PubMed - in process]

18: Bhattacharjee S, Khanna P, Bansal S, Maitra S. Intraoperative wandering atrial pacemaker with isoflurane anaesthesia. Indian J Anaesth. 2016

Jun;60(6):441-2. doi: 10.4103/0019-5049.183384. PubMed PMID: 27330214; PubMed Central PMCID: PMC4910492.

19: Bhoje A, Talwar S, Saxena R, Gharde P, Choudhary SK. Surgical Challenges of Familial Hypercholesterolemia. *Ann Thorac Surg.* 2016 Jun;101(6):2367-70. doi: 10.1016/j.athoracsur.2015.08.048. PubMed PMID: 27211947.

A 21-year-old patient with familial hypercholesterolemia presented with angina caused by ostial stenosis of the left internal mammary artery and severe calcific aortic stenosis with small aortic root 9 years after coronary revascularization. The ostium of the left internal mammary artery was enlarged using a saphenous vein patch through a left supraclavicular incision, which improved left ventricular function. Successful aortic valve replacement with posterior aortic root enlargement was subsequently performed. The surgical management of this condition is discussed briefly.

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DOI: 10.1016/j.athoracsur.2015.08.048
PMID: 27211947 [PubMed - in process]

20: Biswas A, Julka PK. Bleomycin induced flagellate erythema in a patient with thalamic mixed germ cell tumour: Report of a rare adverse effect. *J Egypt Natl Canc Inst.* 2016 Jun;28(2):129-32. doi: 10.1016/j.jnci.2016.04.002. PubMed PMID: 27106629.

Bleomycin induced flagellate dermatitis is an uncommon and unique adverse effect. With the declining use of bleomycin, this complication is becoming increasingly infrequent in day-to-day clinical practice. We herein describe a case of a 13-year-old male patient with left thalamic mixed germ cell tumour treated by multimodality approach, who developed flagellate erythema after two cycles of combination chemotherapy with bleomycin, etoposide and cisplatin (BEP). This brief report highlights the importance of awareness and timely identification and management of this dermatological toxicity in patients undergoing bleomycin based combination chemotherapy.

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21: Biswas S, Better N, Pascual TN, Mercuri M, Vitola JV, Karthikeyan G, Westcott J, Alexanderson E, Allam AH, Al-Mallah MH, Bom HH, Bouyoucef SE, Flotats A, Jerome S, Kaufman PA, Lele V, Luxenburg O, Mahmarian JJ, Shaw LJ, Underwood SR, Rehani M, Kashyap R, Dondi M, Paez D, Einstein AJ; INCAPS Investigators Group.. Nuclear Cardiology Practices and Radiation Exposure in the Oceania Region: Results From the IAEA Nuclear Cardiology Protocols Study (INCAPS). *Heart Lung Circ.* 2017 Jan;26(1):25-34. doi: 10.1016/j.hlc.2016.05.112. PubMed PMID: 27425184.

BACKGROUND: There is concern about radiation exposure with radionuclide myocardial perfusion imaging (MPI). This sub-study of the International Atomic Energy Agency (IAEA) Nuclear Cardiology Protocols Study reports radiation doses from MPI, and use of dose-optimisation protocols in Australia and New Zealand (ANZ), and compares them with data from the rest of the world.
METHODS: Data were collected from 7911 MPI studies performed in 308 laboratories worldwide in one week in 2013, including 439 MPI studies from 34 ANZ

laboratories. For each laboratory, effective radiation dose (ED) and a quality index (QI) score (out of 8) based on pre-specified "best practices" was determined.

RESULTS: In ANZ patients, ED ranged from 0.9-17.9 milliSievert (mSv). Median ED was similar in ANZ compared with the rest of the world (10.0 (IQR: 6.5-11.7) vs. 10.0 (IQR 6.4-12.6, P=0.15), as were mean QI scores (5.5±0.7 vs. 5.4±1.3, P=0.84). Use of stress-only imaging (17.6% vs. 31.8% of labs, P=0.09) and weight-based dosing of technetium-99m (14.7% vs. 30.3%, P=0.07) was lower in ANZ compared with the rest of the world but this difference was not statistically significant. Median ED was significantly lower in metropolitan versus non-metropolitan laboratories (10.1 mSv vs. 11.6 mSv, P<0.01), although mean QI scores were similar (5.4±0.8 vs. 5.5±0.7, P=0.75).

CONCLUSION: Across ANZ, there is variability in ED from MPI, and use of radiation safety practices, particularly between metropolitan and non-metropolitan laboratories. Overall, ANZ laboratories have a similar median ED to laboratories in the rest of the world.

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PMID: 27425184 [PubMed - in process]

22: Bopanna S, Roy M, Das P, Dattagupta S, Sreenivas V, Mouli VP, Kedia S, Dhingra R, Pradhan R, Kumar NS, Yadav DP, Makharia G, Ahuja V. Role of random biopsies in surveillance of dysplasia in ulcerative colitis patients with high risk of colorectal cancer. *Intest Res.* 2016 Jul;14(3):264-9. doi: 10.5217/ir.2016.14.3.264. PubMed PMID: 27433149; PubMed Central PMCID: PMC4945531.

BACKGROUND/AIMS: Recent data suggest that the incidence of ulcerative colitis (UC) related colorectal cancer (CRC) in India is similar to that of West. The optimum method for surveillance is still a debate. Surveillance with random biopsies has been the standard of care, but is a tedious process. We therefore undertook this study to assess the yield of random biopsy in dysplasia surveillance.

METHODS: Between March 2014 and July 2015, patients of UC attending the Inflammatory Bowel Disease clinic at the All India Institute of Medical Sciences with high risk factors for CRC like duration of disease >15 years and pancolitis, family history of CRC, primary sclerosing cholangitis underwent surveillance colonoscopy for dysplasia. Four quadrant random biopsies at 10 cm intervals were taken (33 biopsies). Two pathologists examined specimens for dysplasia, and the yield of dysplasia was calculated.

RESULTS: Twenty-eight patients were included. Twenty-six of these had pancolitis with a duration of disease greater than 15 years, and two patients had associated primary sclerosing cholangitis. No patient had a family history of CRC. The mean age at onset of disease was 28.89±8.73 years and the duration of disease was 19.00±8.78 years. Eighteen patients (64.28%) were males. A total of 924 biopsies were taken. None of the biopsies revealed any evidence of dysplasia, and 7/924 (0.7%) were indefinite for dysplasia.

CONCLUSIONS: Random biopsy for surveillance in longstanding extensive colitis has a low yield for dysplasia and does not suffice for screening. Newer techniques such as chromoendoscopy-guided biopsies need greater adoption.

DOI: 10.5217/ir.2016.14.3.264

PMCID: PMC4945531

PMID: 27433149 [PubMed]

23: Bypareddy R, Chawla R, Azad SV, Khokhar S. Rubella cataract and retinopathy.

BMJ Case Rep. 2016 Jun 10;2016. pii: bcr2016216112. doi: 10.1136/bcr-2016-216112. PubMed PMID: 27288206.

24: Cham A, Bansal M, Banda HK, Kwon Y, Tlucek PS, Bassuk AG, Tsang SH, Sobol WM, Folk JC, Yeh S, Mahajan VB. Secondary glaucoma in CAPN5-associated neovascular inflammatory vitreoretinopathy. Clin Ophthalmol. 2016 Jun 27;10:1187-97. doi: 10.2147/OPTH.S103324. PubMed PMID: 27390515; PubMed Central PMCID: PMC4930228.

OBJECTIVE: The objective of this study was to review the treatment outcomes of patients with secondary glaucoma in cases of autosomal dominant neovascular inflammatory vitreoretinopathy (ADNIV), a hereditary autoimmune uveitis due to mutations in CAPN5.

PATIENTS AND METHODS: A retrospective, observational case series was assembled from ADNIV patients with secondary glaucoma. The main outcome measures were intraocular pressure (IOP), visual acuity, use of antiglaucoma medications, ocular surgeries, and adverse outcomes. Perimetry and optic disk optical coherence tomography (OCT) were also analyzed.

RESULTS: Nine eyes of five ADNIV patients with secondary glaucoma were reviewed. Each received a fluocinolone acetonide (FA) implant for the management of posterior uveitis. Following implantation, no eyes developed neovascular glaucoma. Five eyes (in patients 1, 2, and 5) required Ahmed glaucoma valve surgery for the management of steroid-responsive glaucoma. Patient 2 also developed angle closure with iris bombe and underwent laser peripheral iridotomy. Patient 4 had both hypotony and elevated IOP that required periodic antiglaucoma medication in the FA-implanted eye. Patient 3 did not develop steroid-response glaucoma in either eye. Optic disk examinations were obscured by fibrosis and better assessed with OCT.

CONCLUSION: ADNIV patients show combined mechanism secondary glaucoma best assessed by OCT of the optic disk. The FA implants have reduced uveitic and neovascular glaucoma. Nevertheless, IOP management remains complex due to steroid-response glaucoma, angle closure glaucoma, and hypotony.

DOI: 10.2147/OPTH.S103324
PMCID: PMC4930228
PMID: 27390515 [PubMed]

25: Chauhan V, Tiwari A, Rath GP, Banik S. Asystole during lumbar discectomy: a case report. J Clin Anesth. 2016 Jun;31:265-6. doi: 10.1016/j.jclinane.2016.01.014. PubMed PMID: 27185724.

Hemodynamic derangements have been reported after surgery involving upper cervical spine. Similar observations, however, are rare during a lumbar spine surgery. We share our experience in a patient who had 2 episodes of bradycardia leading to transient asystole while undergoing lumbar discectomy for prolapsed intervertebral disc. The risk of life-threatening hemodynamic disturbances during seemingly uncomplicated surgery in prone position has been emphasized.

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DOI: 10.1016/j.jclinane.2016.01.014
PMID: 27185724 [PubMed - in process]

26: Chauhan V, Banik S, Rath GP. Shaving and clopidogrel in elderly: should we be worried? J Clin Anesth. 2016 Jun;31:44-5. doi: 10.1016/j.jclinane.2015.11.002. PubMed PMID: 27185676.

27: Chharchhodawala T, Gajendra S, Tiwari P, Gogia A, Gupta R. Therapy Related Acute Myeloid Leukemia with t(8;16) Mimicking Acute Promyelocytic Leukemia. Indian J Hematol Blood Transfus. 2016 Jun;32(Suppl 1):20-2. doi: 10.1007/s12288-015-0527-0. PubMed PMID: 27408347; PubMed Central PMCID: PMC4925497.

Acute myeloid leukemia (AML) with t(8;16)(p11;q13) is a distinct clinical and morphological entity with poor prognosis, which is characterized by a high frequency of extramedullary involvement, most commonly leukemia cutis; association with therapy related AML; frequent coagulopathy and morphologic features overlapping acute promyelocytic leukemia (APL). Herein, we present a case of 47 year-old post-menopausal woman developing secondary AML with t(8;16)(p11;q13) after 1 year of completion of therapy for breast carcinoma. Blasts were granulated with few showing clefted nucleus resembling promyelocytes and immunophenotyping showed high side scatter with MPO positivity and CD 34 and HLA-DR negativity. In view of promyelocyte like morphology and immunophenotyping of blasts, possibility of APL was considered but, reverse transcription polymerase chain reaction (RT-PCR) for PML-RAR α fusion transcript came out to be negative. Conventional cytogenetics showed t(8;16)(p11;q13). So, we should keep possibility of t(8;16)(p11;q13) in therapy related acute myeloid leukemia in patient showing clinical and morphological features of acute promyelocytic leukemia.

DOI: 10.1007/s12288-015-0527-0
PMCID: PMC4925497 [Available on 2017-06-01]
PMID: 27408347 [PubMed]

28: Chopra A, Soni S, Pati H, Kumar D, Diwedi R, Verma D, Vishwakama G, Bakhshi S, Kumar S, Gogia A, Kumar R. Nucleophosmin mutation analysis in acute myeloid leukaemia: Immunohistochemistry as a surrogate for molecular techniques. Indian J Med Res. 2016 Jun;143(6):763-768. doi: 10.4103/0971-5916.192027. PubMed PMID: 27748301.

BACKGROUND & OBJECTIVES: Mutation of nucleophosmin (NPM1) gene in the absence of FLT3-ITD (FMS related tyrosine kinase 3 - internal tandem duplications) mutation carries a good prognosis in cytogenetically normal acute myeloid leukaemia (AML). NPM1, a multifunctional nucleolar phosphoprotein that shuttles between nucleus and cytoplasm, gets trapped in the cytoplasm when mutated. Immunohistochemical (IHC) demonstration of its aberrant cytoplasmic location (NPMc+) has been suggested as a simple substitute for the standard screening molecular method. This study was aimed to assess the diagnostic utility of IHC on formalin fixed bone marrow biopsies in comparison with the reference molecular method (allele specific oligonucleotide - polymerase chain reaction; ASO-PCR) to predict NPM1 mutation status in AML patients.

METHODS: NPM protein IHC was performed using mouse anti-NPM monoclonal antibody on 35 paraffin-embedded bone marrow biopsies of patients with primary AML of any French-American-British (FAB) subtype. Results of IHC were compared with those of ASO-PCR.

RESULTS: Of the 35 AML patients, 21 (60%) were positive for NPM1 exon 12 gene mutation by ASO-PCR, 19 (90.47%) of these 21 were NPMc+. Thirteen of the 35 patients were negative by both the methods. One NPMc+ patient was not detected by ASO-PCR. IHC had a sensitivity and specificity of 90 and 93 per cent, respectively, compared to the molecular screening gold standard.

INTERPRETATION & CONCLUSIONS: Mutation of NPM1 determined by the widely available and inexpensive IHC agrees closely with results of the standard molecular methods. Thus, technically and financially not well endowed laboratories can provide the prognostically and potentially therapeutically important information on NPM1 mutation using IHC.

DOI: 10.4103/0971-5916.192027
PMID: 27748301 [PubMed - in process]

29: Dantham S, Srivastava AK, Gulati S, Rajeswari MR. Plasma circulating cell-free mitochondrial DNA in the assessment of Friedreich's ataxia. *J Neurol Sci.* 2016 Jun 15;365:82-8. doi: 10.1016/j.jns.2016.04.016. PubMed PMID: 27206881.

Friedreich's ataxia (FRDA) is one of the most devastating childhood onset neurodegenerative disease affecting multiple organs in the course of progression. FRDA is associated with mitochondrial dysfunction due to deficit in a nuclear encoded mitochondrial protein, frataxin. Identification of disease-specific biomarker for monitoring the severity remains to be a challenging topic. This study was aimed to identify whether circulating cell-free nuclear DNA (nDNA) and mitochondrial DNA (mtDNA) in blood plasma can be a potential biomarker for FRDA. Clinical information was assessed using International Cooperative Ataxia Rating Scale and the disease was confirmed using Long-range PCR for GAA repeat expansion within the gene encoding frataxin. The frataxin expression was measured using Western blot. Plasma nDNA and mtDNA levels were quantified by Multiplex real-time PCR. The major observation is that the levels of nDNA found to be increased, whereas mtDNA levels were reduced significantly in the plasma of FRDA patients (n=21) as compared to healthy controls (n=21). Further, plasma mtDNA levels showed high sensitivity (90%) and specificity (76%) in distinguishing from healthy controls with optimal cutoff indicated at 4.1×10^5 GE/mL. Interestingly, a small group of follow-up patients (n=9) on intervention with, a nutrient supplement, omega-3 fatty acid (a known enhancer of mitochondrial metabolism) displayed a significant improvement in the levels of plasma mtDNA, supporting our hypothesis that plasma mtDNA can be a potential monitoring or prognosis biomarker for FRDA.

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DOI: 10.1016/j.jns.2016.04.016
PMID: 27206881 [PubMed - in process]

30: Das P, Gahlot GP, Mehta R, Makharia A, Verma AK, Sreenivas V, Panda SK, Ahuja V, Gupta SD, Makharia GK. Patients with mild enteropathy have apoptotic injury of enterocytes similar to that in advanced enteropathy in celiac disease. *Dig Liver Dis.* 2016 Nov;48(11):1290-1295. doi: 10.1016/j.dld.2016.06.013. PubMed PMID: 27378705.

BACKGROUND: Severity of villous atrophy in celiac disease (CeD) is the cumulative effect of enterocyte loss and cell regeneration. Gluten-free diet has been shown to benefit even in patients having a positive anti-tissue transglutaminase (tTG) antibody titre and mild enteropathy.

AIM: We explored the balance between mucosal apoptotic enterocyte loss and cell regeneration in mild and advanced enteropathies.

METHODS: Duodenal biopsies from patients with mild enteropathy (Marsh grade 0 and 1) (n=26), advanced enteropathy (Marsh grade ≥ 2) (n=41) and control biopsies (n=12) were subjected to immunohistochemical staining for end-apoptotic markers (M30, H2AX); markers of cell death (perforin, annexin V); and cell proliferation (Ki67). Composite H-scores based on the intensity and distribution of markers were compared.

RESULTS: End-apoptotic markers and marker of cell death (perforin) were significantly up-regulated in both mild and advanced enteropathies, in comparison to controls; without any difference between mild and advanced enteropathies. Ki67 labelling index was significantly higher in crypts of mild enteropathy, in comparison to controls, suggesting maintained regenerative activity in the former.

CONCLUSIONS: Even in patients with mild enteropathy, the rate of apoptosis is similar to those with advanced enteropathy. These findings suggest the necessity of reviewing the existing practice of not treating patients with mild enteropathy.

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DOI: 10.1016/j.dld.2016.06.013
PMID: 27378705 [PubMed - in process]

31: Dash C, Garg K, Sharma BS. Letter to the Editor: Reduced incidence of CSF leak following complete calvarial reconstruction of craniectomies. *J Neurosurg.* 2016 Sep;125(3):779. doi: 10.3171/2016.3.JNS16514. PubMed PMID: 27315029.

32: Dash D, Choudhary R, Ramanujam B, Vasantha PM, Tripathi M. Paraneoplastic syndrome mimicking progressive supranuclear palsy. *J Clin Neurosci.* 2016 Oct;32:162-3. doi: 10.1016/j.jocn.2016.02.032. PubMed PMID: 27318371.

Paraneoplastic syndrome presenting with progressive supranuclear palsy (PSP) phenotype is extremely rare. We report a patient who presented with features of rapidly progressive parkinsonism similar to PSP and was found to have small cell carcinoma of the lung along with seropositivity for onconeural antigen. The patient was treated with immunomodulation and was given chemotherapy for the malignancy and subsequently improved.

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DOI: 10.1016/j.jocn.2016.02.032
PMID: 27318371 [PubMed - in process]

33: Datta PK, Pawar DK, Baidya DK, Maitra S, Aravindan A, Srinivas M, Lakshmy R, Gupta N, Bajpai M, Bhatnagar V, Agarwala S. Dextrose-containing intraoperative fluid in neonates: a randomized controlled trial. *Paediatr Anaesth.* 2016 Jun;26(6):599-607. doi: 10.1111/pan.12886. PubMed PMID: 27083135.

BACKGROUND: Glucose requirement in neonates during surgery and the impact of glucose supplementation on neonatal metabolism remain unclear.

AIM: This study was designed to identify an appropriate perioperative fluid regimen in neonates which maintains carbohydrate and lipid homeostasis.

METHODS: Forty-five neonates undergoing primary repair of a trachea-esophageal fistula were randomly allocated into three groups. During surgery, the neonates received either 1% dextrose in Ringer lactate (RL) (group D1) at 10 ml·kg⁻¹·h⁻¹, or 2% dextrose in RL (group D2) at 10 ml·kg⁻¹·h⁻¹, or 10% dextrose in N/5 saline at 4 ml·kg⁻¹·h⁻¹ and replacement fluid with 6 ml·kg⁻¹·h⁻¹ of RL (group D4). Glucose homeostasis, electrolyte balance, acid-base status, and endocrine and metabolic parameters were compared among the groups during the perioperative period.

RESULTS: Blood glucose increased in all the three groups at the end of surgery, with no significant difference in blood glucose and incidence of hyperglycemia (BG > 150 mg·dl⁻¹) among them. At 24 h after surgery, blood glucose and incidence of hyperglycemia was significantly higher in Group D1 compared to Group D4. Base excess, bicarbonate, lactate, and pH showed a significant fall in Group D1. There was no significant difference in serum-free fatty acids, serum beta-hydroxy butyrate, and serum cortisol in three groups. At the end of surgery, serum insulin was significantly lower and glucagon : insulin (G : I) ratio was higher in Group D1 compared to Group D4.

CONCLUSIONS: All three solutions, when infused at 10 ml·kg⁻¹·h⁻¹, are equally effective in maintaining glucose homeostasis, but 1% dextrose-containing fluid promotes catabolism, insulin resistance, rebound hyperglycemia, and acidosis. Therefore, 2-4% dextrose-containing fluids is more suitable compared to 1% dextrose-containing fluids for use during major neonatal surgeries requiring average fluid infusion rate of 10 ml·kg⁻¹·h⁻¹.

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DOI: 10.1111/pan.12886
PMID: 27083135 [PubMed - in process]

34: Dinda AK, Bhat M, Srivastava S, Kottarath SK, Prashant CK. Novel nanocarrier for oral Hepatitis B vaccine. *Vaccine*. 2016 Jun 8;34(27):3076-81. doi: 10.1016/j.vaccine.2016.04.084. PubMed PMID: 27156634.

Oral vaccination is a safe, cost effective and non-invasive method suitable for mass immunization. We fabricated nanoparticle (NP) with 14kd polycaprolactone (PCL) entrapping hepatitis B surface antigen (HBsAg) stabilized with Pluronic® F127 and used it as oral delivery vehicle. We evaluated its efficacy for specific antibody production and compared with parenteral routes of immunization in mice. We found a superior antibody response with a higher titer of anti-HBsAg antibody till 2 months following single oral administration compared to other routes of immunization and conventional alum-based HBsAg vaccine. The NPs with the antigen were found in the macrophages in small intestinal villi, peripheral lymph nodes and other reticulo-endothelial organs 2 months after oral administration. This study suggests the efficacy of the current nanocarrier system for efficient antigen presentation disseminated in peripheral lymphoid tissues following oral administration with a prolonged antibody response, which can minimize the requirement of booster dose.

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DOI: 10.1016/j.vaccine.2016.04.084
PMID: 27156634 [PubMed - in process]

35: Doddamani RS, Meena RK, Selvam MM, Venkataramana NK, Tophkhane M, Garg SK. Intraventricular Gliosarcomas: Literature Review and a Case Description. *World Neurosurg*. 2016 Jun;90:707.e5-707.e12. doi: 10.1016/j.wneu.2016.03.033. PubMed PMID: 27004757.

OBJECTIVE: Gliosarcomas are rare, extremely high-grade, bimorphous malignant tumors of the central nervous system. Intraventricular location is extremely rare, and only a few case reports exist in the literature. The aim of our study is to review clinical, radiologic, and pathologic features of this unique oncological entity and report this rare case of primary cystic intraventricular gliosarcoma (IVGS) with a mural nodule.

METHODS: A 23-year-old man had a 6-month history of headache and a single episode of generalized seizure. Examination revealed grade 1 papilledema. Brain magnetic resonance imaging revealed a cystic lesion with a mural nodule located within the occipital horn of the right lateral ventricle, which exhibited an intense enhancement of the nodule with patchy rim enhancement of the wall on gadolinium administration. The patient underwent right parietal craniotomy and gross total excision of the tumor.

RESULTS: Postoperative computed tomography of the brain showed evidence of complete tumor excision. The postoperative course of the patient was uneventful. Histopathologic analysis revealed malignant tumor comprising both glial and mesenchymal components suggestive of gliosarcoma.

CONCLUSION: Primary IVGS is an extremely rare malignancy, with only 9 cases reported in the literature, and it should be considered in the differential diagnosis of lateral ventricular tumors.

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PMID: 27004757 [PubMed - in process]

36: Dongare S, Gupta SK, Mathur R, Saxena R, Mathur S, Agarwal R, Nag TC, Srivastava S, Kumar P. Zingiber officinale attenuates retinal microvascular changes in diabetic rats via anti-inflammatory and antiangiogenic mechanisms. Mol Vis. 2016 Jun 9;22:599-609. PubMed PMID: 27293376; PubMed Central PMCID: PMC4898299.

PURPOSE: Diabetic retinopathy is a common microvascular complication of long-standing diabetes. Several complex interconnecting biochemical pathways are activated in response to hyperglycemia. These pathways culminate into proinflammatory and angiogenic effects that bring about structural and functional damage to the retinal vasculature. Since Zingiber officinale (ginger) is known for its anti-inflammatory and antiangiogenic properties, we investigated the effects of its extract standardized to 5% 6-gingerol, the major active constituent of ginger, in attenuating retinal microvascular changes in rats with streptozotocin-induced diabetes.

METHODS: Diabetic rats were treated orally with the vehicle or the ginger extract (75 mg/kg/day) over a period of 24 weeks along with regular monitoring of bodyweight and blood glucose and weekly fundus photography. At the end of the 24-week treatment, the retinas were isolated for histopathological examination under a light microscope, transmission electron microscopy, and determination of the retinal tumor necrosis factor- α (TNF- α), nuclear factor-kappa B (NF- κ B), and vascular endothelial growth factor (VEGF) levels.

RESULTS: Oral administration of the ginger extract resulted in significant reduction of hyperglycemia, the diameter of the retinal vessels, and vascular basement membrane thickness. Improvement in the architecture of the retinal vasculature was associated with significantly reduced expression of NF- κ B and reduced activity of TNF- α and VEGF in the retinal tissue in the ginger extract-treated group compared to the vehicle-treated group.

CONCLUSIONS: The current study showed that ginger extract containing 5% of 6-gingerol attenuates the retinal microvascular changes in rats with streptozotocin-induced diabetes through anti-inflammatory and antiangiogenic actions. Although precise molecular targets remain to be determined, 6-gingerol seems to be a potential candidate for further investigation.

PMCID: PMC4898299

PMID: 27293376 [PubMed - indexed for MEDLINE]

37: Dube D, Tiwari P, Kaur P. The hunt for antimetabolic agents: an overview of structure-based design strategies. Expert Opin Drug Discov. 2016 Jun;11(6):579-97. doi: 10.1080/17460441.2016.1174689. PubMed PMID: 27077683.

INTRODUCTION: Structure-based drug discovery offers a rational approach for the design and development of novel anti-mitotic agents which target specific proteins involved in mitosis. This strategy has paved the way for development of a new generation of chemotypes which selectively interfere with the target proteins. The interference of these anti-mitotic targets implicated in diverse stages of mitotic cell cycle progression culminates in cancer cell apoptosis.

AREAS COVERED: This review covers the various mitotic inhibitors developed against validated mitotic checkpoint protein targets using structure-based design and optimization strategies. The protein-ligand interactions and the insights gained from these studies, culminating in the development of more potent and selective inhibitors, have been presented.

EXPERT OPINION: The advent of structure-based drug design coupled with advances in X-ray crystallography has revolutionized the discovery of candidate lead molecules. The structural insights gleaned from the co-complex protein-drug interactions have provided a new dimension in the design of anti-mitotic molecules to develop drugs with a higher selectivity and specificity profile. Targeting non-catalytic domains has provided an alternate approach to address

cross-reactivity and broad selectivity among kinase inhibitors. The elucidation of structures of emerging mitotic drug targets has opened avenues for the design of inhibitors that target cancer.

DOI: 10.1080/17460441.2016.1174689
PMID: 27077683 [PubMed - in process]

38: Farooqui FA, Sharma SK, Kumar A, Soneja M, Mani K, Radhakrishnan R, Farooqui N. Endothelial function and carotid intima media thickness in obstructive sleep apnea without comorbidity. *Sleep Breath*. 2016 Jun 25. [Epub ahead of print]
PubMed PMID: 27344563.

PURPOSE: The objective of this study was to evaluate endothelial function and carotid intima media thickness (CIMT) in moderate to severe obstructive sleep apnea (OSA) without comorbidities.

METHODS: It is an observational case control study in which endothelial function was assessed using flow-mediated dilatation (FMD) and peripheral arterial tonometry (PAT), and carotid artery ultrasound was used to measure CIMT in study group subjects that included 20 normotensive, non-diabetic, treatment naive, and moderate to severe OSA patients, and 20 normotensive, non-diabetic, and non-OSA subjects served as a control group. Study was conducted in Polysomnography Laboratory, Department of Internal Medicine, All India Institute of Medical Sciences (AIIMS) Hospital, New Delhi.

RESULTS: FMD was significantly lower in the moderate to severe OSA group compared to non-OSA group (mean±SD, 8.3±2.8 vs. 13.4±4.1 %; p=0.0001). Reactive hyperemia index (RHI) was also significantly lower in the OSA group (1.55±0.27 vs. 2.01±0.48, p=0.0007). CIMT was observed to be significantly higher in the OSA group compared to the non-OSA group (0.54±0.09 vs. 0.48±0.08 mm; p=0.049). In the OSA group, FMD, RHI, and CIMT did not show a significant correlation with OSA disease severity indices [apnea hypopnea index (AHI), oxygen desaturation index (ODI), and minimum O₂ saturation].

CONCLUSION: Endothelial function in macrovascular and microvascular circulation is significantly impaired in moderate to severe OSA patients without comorbidities. These patients also show evidence of subclinical atherosclerosis, in the form of increased CIMT.

DOI: 10.1007/s11325-016-1371-7
PMID: 27344563 [PubMed - as supplied by publisher]

39: Gautam S, Srivastava A, Kataria K, Dhar A, Ranjan P, Kumar J. New Breast Pain Chart for Objective Record of Mastalgia. *Indian J Surg*. 2016 Jun;78(3):245-8.
doi: 10.1007/s12262-016-1492-z. PubMed PMID: 27358525; PubMed Central PMCID: PMC4907922.

Mastalgia is the commonest affliction of mammary gland among ladies of the reproductive age group. Since etiopathogenesis and therapy are different for cyclical and noncyclical pain, it is imperative to ascertain the exact type correctly. This is usually done in the breast clinics by advising the patient to fill a pain diary over a period of 2 months over two menstrual cycles. The Cardiff pain chart records the severity of pain in the form of a triangle for mild to moderate pain and a square for severe pain. Moreover, Cardiff pain chart does not allow a patient to record the severity of pain on days of menses, as she has to put the letter "P" in the box. These problems have been resolved in the new breast pain chart. In the new pain chart, the lady records pain severity in the form of visual linear analogue scale score on every day of menstrual cycle. She enters her menstrual experience on a separate part of chart, which allows us to visualize the full month's pain severity in an uncluttered way.

DOI: 10.1007/s12262-016-1492-z
PMCID: PMC4907922 [Available on 2017-06-01]
PMID: 27358525 [PubMed]

40: Gerdin M, Roy N, Felländer-Tsai L, Tomson G, von Schreeb J, Petzold M; Towards Improved Trauma Care Outcomes in India (TITCO) Consortium., Gupta A, Jhakar A, Basak D, Mohamed Ismail D, Yabo D, Jegadeesan K, Kamble J, Saha ML, Nitnaware M, Khajanchi M, Jothi R, Ghosh SN, Bhoi S, Mahindrakar S, Dharap S, Rao S, Kamal V, Kumar V, Tirlotkar S. Traumatic transfers: calibration is adversely affected when prediction models are transferred between trauma care contexts in India and the United States. *J Clin Epidemiol.* 2016 Jun;74:177-86. doi: 10.1016/j.jclinepi.2016.01.004. PubMed PMID: 26775627.

OBJECTIVE: We evaluated the transferability of prediction models between trauma care contexts in India and the United States and explored updating methods to adjust such models for new contexts.

STUDY DESIGN AND SETTINGS: Using a combination of prospective cohort and registry data from 3,728 patients of Towards Improved Trauma Care Outcomes in India (TITCO) and from 18,756 patients of the US National Trauma Data Bank (NTDB), we derived models in one context and validated them in the other, assessing them for discrimination and calibration using systolic blood pressure, heart rate, and Glasgow coma scale as candidate predictors.

RESULTS: Early mortality was 8% in the TITCO and 1-2% in the NTDB samples. Both models discriminated well, but the TITCO model overestimated the risk of mortality in NTDB patients, and the NTDB model underestimated the risk in TITCO patients.

CONCLUSION: Transferability was good in terms of discrimination but poor in terms of calibration. It was possible to improve this miscalibration by updating the models' intercept. This updating method could be used in samples with as few as 25 events.

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DOI: 10.1016/j.jclinepi.2016.01.004
PMID: 26775627 [PubMed - in process]

41: Giridhar P, Mallick S, Haresh KP, Gupta S, Julka PK, Rath GK. Intracranial fibrosarcoma treated with adjuvant radiation and temozolomide: Report of a case and review of all published cases. *J Egypt Natl Canc Inst.* 2016 Jun;28(2):111-6. doi: 10.1016/j.jnci.2015.07.002. PubMed PMID: 26248975.

INTRODUCTION: Fibrosarcoma is a rare brain tumour with 33 cases reported so far. However, there is no clear consensus about the nature of the disease and treatment as well as outcome.

METHODS: A MEDLINE search was carried out using MESH terms like intracranial fibrosarcoma, intraspinal fibrosarcoma, fibrosarcoma meninges and fibrosarcoma brain. A total of 22 case reports and series reporting a total of 33 cases were identified. We here also report a case treated in our institute with adjuvant radiation and concurrent and maintenance temozolomide.

RESULTS: The age of presentation ranged from 2months to 75years (Median=17years). The gender ratio was found to be M:F of 1.75-1. Treatment modalities were described for 17 cases. Surgery was part of treatment in all cases while radiation was a part of treatment in 59% of cases (n=10) and chemotherapy in 29% cases (n=5). Survival data were available only for 8 cases and ranged from 1day to 8years (Median=15.5months).

CONCLUSION: Fibrosarcoma is a rare disease with dismal prognosis. Surgery remains the cornerstone of therapy. Radiation confers long term disease control and survival. Chemotherapy needs to be evaluated for these tumours to improve survival.

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DOI: 10.1016/j.jnci.2015.07.002
PMID: 26248975 [PubMed - in process]

42: Golwala ZM, Shah H, Gupta N, Sreenivas V, Puliyl JM. Mean Platelet Volume (MPV), Platelet Distribution Width (PDW), Platelet Count and Plateletcrit (PCT) as predictors of in-hospital paediatric mortality: a case-control Study. *Afr Health Sci*. 2016 Jun;16(2):356-62. doi: 10.4314/ahs.v16i2.3. PubMed PMID: 27605950; PubMed Central PMCID: PMC4994558.

BACKGROUND: Thrombocytopenia has been shown to predict mortality. We hypothesize that platelet indices may be more useful prognostic indicators. Our study subjects were children one month to 14 years old admitted to our hospital.

AIM: To determine whether platelet count, plateletcrit (PCT), mean platelet volume (MPV) and platelet distribution width (PDW) and their ratios can predict mortality in hospitalised children.

METHODS: Children who died during hospital stay were the cases. Controls were age matched children admitted contemporaneously. The first blood sample after admission was used for analysis. Receiver operating characteristic (ROC) curve was used to identify the best threshold for measured variables and the ratios studied. Multiple regression analysis was done to identify independent predictors of mortality.

RESULTS: Forty cases and forty controls were studied. Platelet count, PCT and the ratios of MPV/Platelet count, MPV/PCT, PDW/Platelet count, PDW/PCT and MPV × PDW/Platelet count × PCT were significantly different among children who survived compared to those who died. On multiple regression analysis the ratio of MPV/PCT, PDW/Platelet count and MPV/Platelet count were risk factors for mortality with an odds ratio of 4.31(95% CI, 1.69-10.99), 3.86 (95% CI, 1.53-9.75), 3.45 (95% CI, 1.38-8.64) respectively. In 67% of the patients who died MPV/PCT ratio was above 41.8 and PDW/Platelet count was above 3.86. In 65% of patients who died MPV/Platelet count was above 3.45.

CONCLUSION: The MPV/PCT, PDW/Platelet count and MPV/Platelet count, in the first sample after admission in this case control study were predictors of mortality and could predict 65% to 67% of deaths accurately.

DOI: 10.4314/ahs.v16i2.3
PMCID: PMC4994558
PMID: 27605950 [PubMed - in process]

43: Goswami D, Rani R, Saxena A, Arora MS, Batra S, Sreenivas V. Maternal and neonatal vitamin-D status in twin versus singleton pregnancies. *J Obstet Gynaecol Res*. 2016 Oct;42(10):1250-1257. doi: 10.1111/jog.13060. PubMed PMID: 27358199.

AIM: There is a paucity of information on vitamin D status of women with twin pregnancy and their newborns. This case-control study compared maternal and neonatal vitamin-D status in twin versus singleton pregnancies.

METHODS: Subjects included 50 women with twin pregnancy delivering at >28 weeks and 50 gestational-age-matched women with singleton pregnancy delivering during the same period. Maternal and neonatal serum 25-hydroxy vitamin D [25(OH)D] was compared between the two groups using the independent Student's t-test on log values. Serum albumin-adjusted calcium, inorganic phosphate, and intact parathormone levels were also compared.

RESULTS: Maternal vitamin-D deficiency (VDD; serum 25(OH)D < 30 nmol/L) was present in 90% of twin and 88% of singleton pregnancies. The prevalence of neonatal VDD was 89% in twin and 74% in singleton pregnancies (P = 0.03). Maternal serum 25(OH)D was lower in the twin group as compared to the singleton group (14.3 ± 10.47 vs 18.5 ± 12.36 nmol/L; P = 0.02). Mean serum calcium, intact parathormone, and inorganic phosphate were comparable between the women in the two groups. Maternal and neonatal 25(OH)D showed positive correlation in the two groups (P < 0.001). Mean cord blood 25(OH)D was significantly lower in the twins

than in singleton newborns (14.8 ± 12.63 vs 22.6 ± 16.68 nmol/L; $P = 0.002$). The difference persisted even after adjustment for birthweights and maternal serum 25(OH)D. Mean serum calcium was significantly lower in the twins.

CONCLUSION: Twin newborns and their mothers have higher VDD as compared to singleton newborns and their mothers in the VDD population.

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DOI: 10.1111/jog.13060

PMID: 27358199 [PubMed - in process]

44: Goudra B, Singh PM. Providing Deep Sedation for Advanced Endoscopic Procedures: The Esthetics of Endoscopic Anesthetics. *Dig Dis Sci*. 2016 Jun;61(6):1426-8. doi: 10.1007/s10620-016-4157-7. PubMed PMID: 27073071.

45: Gupta A, Kapil U. Reduction in the Prevalence of Underweight, Stunting and Wasting in Selected States of India. *Indian J Pediatr*. 2016 Nov;83(12-13):1488-1490. PubMed PMID: 27287775.

46: Gupta AK, Shroff M. Editorial: Pediatric Radiology for the Practitioners - Simplifying the Jargons. *Indian J Pediatr*. 2016 Jun;83(6):530-2. doi: 10.1007/s12098-016-2105-3. PubMed PMID: 27109390.

47: Gupta R, Chandgothia M, Dahiya M, Bakhshi S, Sharma A, Kumar L. Multi-drug resistance protein 1 as prognostic biomarker in clinical practice for acute myeloid leukemia. *Int J Lab Hematol*. 2016 Oct;38(5):e93-7. doi: 10.1111/ijlh.12529. PubMed PMID: 27321806.

48: Gupta R, Gupta N, Nampoothiri S, Mandal K, Kishore Y, Sharma P, Kabra M, Phadke SR. Smith-Magenis Syndrome: Face Speaks. *Indian J Pediatr*. 2016 Jun;83(6):589-93. doi: 10.1007/s12098-015-1940-y. PubMed PMID: 26676648.

Smith-Magenis syndrome is a well delineated microdeletion syndrome with characteristic facial and behavioral phenotype. With the availability of the multi-targeted molecular cytogenetic techniques like Multiplex Ligation Probe Amplification and cytogenetic microarray, the cases are diagnosed even without clinical suspicion. Here, the authors present clinical features of nine Indian cases of Smith-Magenis syndrome. Characteristic facial phenotype including tented upper lip, broad forehead, midface hypoplasia, short philtrum and upslant of palpebral fissure is obvious in the photographs. The behavioral variations were seen in some of the cases but were not the presenting features. The characteristic facial phenotype can be an important clinical guide to the diagnosis.

DOI: 10.1007/s12098-015-1940-y

PMID: 26676648 [PubMed - in process]

49: Gupta S, Jangra RS, Gupta S, Mahendra A, Kumar A. Assembling disposable punches using a shaving blade and hypodermic needle. *J Am Acad Dermatol*. 2016 Jun;74(6):e131-2. doi: 10.1016/j.jaad.2015.12.034. PubMed PMID: 27185454.

50: Gupta SK, Bakhshi S, Kumar L, Kamal VK, Kumar R. Gene copy number alteration profile and its clinical correlation in B-cell acute lymphoblastic leukemia. *Leuk Lymphoma*. 2017 Feb;58(2):333-342. PubMed PMID: 27339065.

The genes related to B-cell development are frequently altered in B-cell acute lymphoblastic leukemia (B-ALL). One hundred sixty-two newly diagnosed B-ALL cases, median age 8.5 years (2 months-67 years), were prospectively analyzed for copy number alterations (CNAs) in CDKN2A/B, IKZF1, PAX5, RB1, ETV6, BTG1, EBF1, and pseudoautosomal region genes (CRLF2, CSF2RA, IL3RA) using multiplex

ligation-dependent probe amplification. The CNAs were detected in 114 (70.4%) cases; most commonly affected genes being CDKN2A/B-55 (34%), PAX5-51 (31.5%), and IKZF1-43 (26.5%). IKZF1 and RB1 deletions correlated with higher induction failure. Patients classified as good-risk, according to the integrated CNA profile and cytogenetic criteria, had lower induction failure [5 (8.6%) vs. 20 (25.3%); $p=0.012$]. Those classified as good-risk, based on CNA profile irrespective of cytogenetics, also showed lower induction failure [6 (9.4%) vs. 19 (26%); $p=0.012$]. The CNA profile identified patients with better induction outcome and has a potential role in better risk stratification of B-ALL.

DOI: 10.1080/10428194.2016.1193855
PMID: 27339065 [PubMed - in process]

51: Haresh KP, Benson R, Mallick S, Gupta S, Sharma D, Pandey R, Julka PK, Rath GK. Outcomes of Young Patients With Rectal Cancer From a Tertiary Cancer Care Centre in India. *Clin Colorectal Cancer*. 2016 Jun;15(2):e23-8. doi: 10.1016/j.clcc.2015.12.009. PubMed PMID: 26832128.

BACKGROUND: Carcinoma of the rectum is the fourth most common cancer in the world. The peak age of diagnosis is around the seventh decade. Rectal cancer presenting in those < 35 years old are very peculiar in that they present with adverse histologic features and more advanced stage compared with rectal cancer presenting in older patients.

MATERIALS AND METHODS: We retrospectively evaluated the patient records of young patients with rectal cancer (aged < 35 years) treated in our unit at the All India Institute from 2007 to 2013.

RESULTS: A total of 60 young patients with rectal cancer were registered in our unit during the study period. A family history of cancer was present in 3 patients. The median age at presentation was 27.5 years (range, 15-34 years). The male-to-female ratio was 1.5:1. Of the 60 patients, 52 (86.6%) presented with advanced-stage disease (stage III and IV). Mucinous, signet, papillary, and other poor-risk histologic features were seen in 33 patients (55%). The treatment intention was radical for 50 patients (83.3%). The median follow-up period was 7.3 months. Eighteen patients had documented disease progression. Distant metastasis was the most common type of failure, seen in 14 of 18 patients (77%). The median progression-free survival (PFS) was 1.4 years. The 1- and 3-year PFS rates were 66.5% and 42.0%, respectively. On univariate analysis, the Karnofsky performance status and histologic type were significant prognostic factors for PFS.

CONCLUSION: A greater proportion of poor histologic subtypes was found among young patients with rectal cancer. The high incidence of poor histologic subtypes confers a poor prognosis in these patients.

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PMID: 26832128 [PubMed - in process]

52: Jain N, Khullar B, Oswal N, Banoth B, Joshi P, Ravindran B, Panda S, Basak S, George A, Rath S, Bal V, Sopory S. TLR-mediated albuminuria needs TNF α -mediated cooperativity between TLRs present in hematopoietic tissues and CD80 present on non-hematopoietic tissues in mice. *Dis Model Mech*. 2016 Jun 1;9(6):707-17. doi: 10.1242/dmm.023440. PubMed PMID: 27125280; PubMed Central PMCID: PMC4920147.

Transient albuminuria induced by pathogen-associated molecular patterns (PAMPs) in mice through engagement of Toll-like receptors (TLRs) is widely studied as a partial model for some forms of human nephrotic syndrome (NS). In addition to TLRs, CD80 has been shown to be essential for PAMP-mediated albuminuria. However, the mechanistic relationships between TLRs, CD80 and albuminuria remain unclear. Here, we show that albuminuria and CD80-uria induced in mice by many TLR ligands

are dependent on the expression of TLRs and their downstream signalling intermediate MyD88 exclusively in hematopoietic cells and, conversely, on CD80 expression exclusively in non-hematopoietic cells. TNF α is crucial for TLR-mediated albuminuria and CD80-uria, and induces CD80 expression in cultured renal podocytes. IL-10 from hematopoietic cells ameliorates TNF α production, albuminuria and CD80-uria but does not prevent TNF α -mediated induction of podocyte CD80 expression. Chitohexaose, a small molecule originally of parasite origin, mediates TLR4-dependent anti-inflammatory responses, and blocks TLR-mediated albuminuria and CD80-uria through IL-10. Thus, TNF α is a prominent mediator of renal CD80 induction and resultant albuminuria in this model, and small molecules modulating TLR-mediated inflammatory activation might have contributory or adjunct therapeutic potential in some contexts of NS development.

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DOI: 10.1242/dmm.023440

PMCID: PMC4920147

PMID: 27125280 [PubMed - in process]

53: Jain S, Ramesh V, Singh A, Yadav A, Ramam M, Khandpur S. Clinical and histopathological features of paucibacillary leprosy before and after multidrug therapy: a prospective study. *Trans R Soc Trop Med Hyg.* 2016 Jun;110(6):350-8. doi: 10.1093/trstmh/trw039. PubMed PMID: 27317754.

BACKGROUND: Leprosy often heals with residual skin lesions after completion of treatment. WHO recommends fixed duration multidrug therapy (MDT) irrespective of whether lesions clear or persist after treatment. Patients with residual lesions are often unsatisfied and may undergo repeat biopsy and re-treatment. This study was conducted to compare the clinicohistopathological features in paucibacillary leprosy before and after MDT from September 2012 to February 2014.

METHODS: Sixty-one untreated cases of paucibacillary leprosy were investigated and given standard WHO paucibacillary-MDT for 6 months. Scoring of clinical activity was done; histopathological activity was graded according to granuloma fraction. Forty-four patients who completed the treatment were subjected to post-treatment biopsy. Clinical response to therapy was graded as active, resolving and inactive and histopathological changes were compared in all patients.

RESULTS: Among the 44 patients, the lesions were inactive, resolving and active in 39% (17/44), 39% (17/44) and 23% (10/44) of patients respectively.

Histologically, disease was inactive, resolving and active in 30% (13/44), 9% (4/44) and 61% (27/44). But histomorphological features suggesting regression: loose granulomas (59%, 26/44); lymphocyte predominance (66%, 29/44); vacuolar change in epithelioid cell cytoplasm (59%, 26/44), were statistically significant in post-treatment compared to pre-treatment.

CONCLUSIONS: Although histological resolution is slower than clinical resolution, qualitative histomorphological changes in correlation with clinical inactivity can offer a fair suggestion to the clinician to terminate therapy.

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DOI: 10.1093/trstmh/trw039

PMID: 27317754 [PubMed - in process]

54: Jakhetiya A, Shukla NK, Deo SV, Garg PK, Thulkar S. Deep Vein Thrombosis in Indian Cancer Patients Undergoing Major Thoracic and Abdomino-Pelvic Surgery. *Indian J Surg Oncol.* 2016 Dec;7(4):425-429. PubMed PMID: 27872530.

The aim of the study was to determine the incidence of postoperative deep vein

thrombosis (DVT) in Indian patients undergoing surgery for thoracic and abdomino-pelvic malignancies. A prospective observational study was conducted in a tertiary care cancer centre in North India. Two hundred and fifty consecutive patients who underwent curative surgery for thoracic and abdomino-pelvic malignancies during the period March 2014 to March 2015 were enrolled in the study. Perioperative pharmacological antithrombotic prophylaxis was not prescribed to any of the patient as per the institutional protocol. All the patients underwent colour duplex ultrasound of the bilateral lower limbs - preoperatively to determine the baseline status, and on 7th and 28th day postoperatively to look for presence of DVT. None of the patient in the study cohort showed clinical or radiological evidence of lower limb deep vein thrombosis. Our study suggests very low incidence of deep vein thrombosis in Indian patients undergoing surgery for thoracic and abdomino-pelvic malignancy.

DOI: 10.1007/s13193-016-0538-9

PMID: 27872530 [PubMed - in process]

55: Jalota A, Kumar M, Das BC, Yadav AK, Chosdol K, Sinha S. Synergistic increase in efficacy of a combination of 2-deoxy-D-glucose and cisplatin in normoxia and hypoxia: switch from autophagy to apoptosis. *Tumour Biol.* 2016 Sep;37(9):12347-12358. PubMed PMID: 27306214.

Resistance to drugs, which is aggravated by hypoxia, is a well-known feature of tumors. The combination of drug exposure and hypoxia can give rise to several survival strategies in the exposed cells. Glioblastoma multiforme (GBM) is among the most hypoxic of solid tumors, and we have used glial cells to identify a drug combination that would be synergistically effective in these cells under both normoxia and hypoxia. Cisplatin (CP) and 2-deoxy-D-glucose (2-DG), which have been used for second-line therapy and for preclinical research, are relatively ineffective as single agents. During in vitro experiments with A172 and LN229 cells, there was increased resistance to both drugs under hypoxia. However, the combination of CP and 2-DG showed a synergistic effect in reducing cell viability under both normoxia and hypoxia, with a combination index of less than 1. Increased autophagy is a distinct feature of the response to 2-DG. However, autophagic markers were reduced, and apoptotic markers were upregulated by the combination, indicating a switch over from autophagic to apoptotic pathways with reduction in endoplasmic reticulum (ER) stress. The combination also resulted in a decrease of pAKT levels. The effect of CP in the combination was replicated by the prototype AKT inhibitor LY294002, further supporting the role of AKT inhibition in the synergism. Combination of 2-DG with CP, or possibly an AKT inhibitor, can prove to be an effective rational combination for reducing chemoresistance under both normoxic and hypoxic conditions in gliomas.

DOI: 10.1007/s13277-016-5089-8

PMID: 27306214 [PubMed - in process]

56: Jana M, Bhalla AS, Gupta AK. Approach to Pediatric Chest Radiograph. *Indian J Pediatr.* 2016 Jun;83(6):533-42. doi: 10.1007/s12098-015-1980-3. PubMed PMID: 26983619.

Chest radiograph remains the first line imaging modality even today, especially in ICU settings. Hence proper interpretation of chest radiographs is crucial, which can be achieved by adopting a systematic approach and proper description and identification of abnormalities. In this review, the authors describe a short and comprehensive way of interpreting the pediatric chest radiograph.

DOI: 10.1007/s12098-015-1980-3

PMID: 26983619 [PubMed - in process]

57: Jha S, Chadda RK, Kumar N, Bal CS. Brain SPECT guided repetitive transcranial magnetic stimulation (rTMS) in treatment resistant major depressive disorder. *Asian J Psychiatr.* 2016 Jun;21:1-6. doi: 10.1016/j.ajp.2016.02.003. PubMed PMID: 27208445.

Repetitive transcranial magnetic stimulation (rTMS) has emerged as a potential treatment in treatment resistant major depressive disorder (MDD). However, there is no consensus about the exact site of stimulation for rTMS. Single-photon emission computed tomography (SPECT) offers a potential technique in deciding the site of stimulation. The present study was conducted to assess the difference in outcome of brain SPECT assisted rTMS versus standard protocol of twenty sessions of high frequency rTMS as add on treatment in 20 patients with treatment resistant MDD, given over a period of 4 weeks. Thirteen subjects (group I) received high frequency rTMS over an area of hypoperfusion in the prefrontal cortex, as identified on SPECT, whereas 7 subjects (group II) were administered rTMS in the left dorsolateral prefrontal cortex (DLPFC) area. Improvement was monitored using standardized instruments. Patients in the group I showed a significantly better response compared to those in the group II. In group I, 46% of the subjects were responders on MADRS, 38% on BDI and 77% on CGI. The parallel figures of responders in Group II were 0% on MADRS, 14% on BDI and 43% on CGI. There were no remitters in the study. No significant untoward side effects were noticed. The study had limitations of a small sample size and non-controlled design, and all the subjects were also receiving the standard antidepressant therapy. Administration of rTMS over brain SPECT specified area of hypoperfusion may have a better clinical outcome compared to the standard protocol.

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DOI: 10.1016/j.ajp.2016.02.003

PMID: 27208445 [PubMed - in process]

58: Kakkar A, Jain D, Mathur SR, Iyer VK, Sarkar C, Ranjan Dash N. Atypical cytological features of a solid pseudopapillary neoplasm of the pancreas metastatic to the liver. *Cytopathology.* 2016 Jun;27(3):218-20. doi: 10.1111/cyt.12256. PubMed PMID: 26104297.

59: Kandwal P, Goswami A, Vijayaraghavan G, Subhash KR, Jaryal A, Upendra BN, Jayaswal A. Staged Anterior Release and Posterior Instrumentation in Correction of Severe Rigid Scoliosis (Cobb Angle >100 Degrees). *Spine Deform.* 2016 Jul;4(4):296-303. doi: 10.1016/j.jspd.2015.12.005. PubMed PMID: 27927520.

PURPOSE: Severe rigid curves present a big challenge to the treating spine surgeon. We evaluated the outcome of staged anterior release and posterior instrumentation for rigid scoliosis.

METHODS: Twenty-one patients with an average age of 14.4 years (range 11-17) having a rounded severe rigid scoliosis (Cobb angle >100 degrees) underwent surgical correction. Six patients had congenital scoliosis, 13 idiopathic scoliosis, and 2 syndromic. All patients underwent anterior release in Stage I with one or more Ponte osteotomies and in Stage II with all pedicle screw instrumentation, and 13 of the patients underwent an asymmetric pedicle subtraction osteotomy at the apex. Patients were assessed for deformity correction, operative time, blood loss, and any complications.

RESULTS: The preoperative Cobb angle of 116.6 degrees (range 101-124 degrees) improved to 74.0 degrees (range 54-86 degrees) after anterior release: 29.4% correction and the final postoperation Cobb angle after posterior instrumentation was 26.5 degrees (range 22-32 degrees), with final 76% correction. The average blood loss in anterior release was 585.95 mL (range 400-980 mL; % estimated blood volume = 19.5%), whereas the mean operative time was 223 minutes (165-315 minutes). One patient had prolonged chest drain and two, basal atelectasis

following anterior release. The mean operative time for the posterior procedure was 340 minutes (range 280-420 minutes) and average blood loss was 2,066 mL (range 1,200-3,200 mL). The mean apical axial rotation of 56 degrees (range 26-79 degrees) improved to 28 degrees (range 9-42 degrees) ($p < .05$). There was loss of motor evoked potential signal in one and hook pullout, superficial infection, and local skin necrosis one case each.

CONCLUSION: The staged approach to the management of severe, rigid scoliosis helps get an excellent correction. Anterior release loosens up the rigid apex and provides with nearly 30% correction so that the extent of the osteotomies in the second stage from the back is substantially reduced, allowing for a final good correction.

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DOI: 10.1016/j.jspd.2015.12.005

PMID: 27927520 [PubMed - in process]

60: Kapoor N, Naufahu J, Tewfik S, Bhatnagar S, Garg R, Tewfik I. A Prospective Randomized Controlled Trial to Study the Impact of a Nutrition-Sensitive Intervention on Adult Women With Cancer Cachexia Undergoing Palliative Care in India. *Integr Cancer Ther*. 2016 Jun 1. pii: 1534735416651968. [Epub ahead of print] PubMed PMID: 27252077.

Purpose Advanced cancer patients with disease progression develop cachexia. Nevertheless, cancer patients at nutritional risk have shown improved body weight and quality of life with oral nutritional supplements. **Method** This was a randomized controlled trial in adult female cancer patients ($n = 63$) attending palliative clinics, with symptoms of cachexia. Eligible patients were randomly distributed into control ($n = 33$) and intervention ($n = 30$) groups. Both groups were provided with nutritional and physical activity counseling, but the intervention group received an additional 100 g of Improved Atta (IAtta) for 6 months daily consumption. This study was designed to assess the efficacy of IAtta (with counseling) in enhancing the health status of cachexic patients. **Anthropometric measurements, dietary intake, physical activity level and quality of life parameters** were assessed at baseline, after 3 months, and at the end of 6 months. **Results** Patients in the control group ($n = 15$) had significantly decreased body weight ($P = .003$), mid-upper-arm circumference ($P = .002$), and body fat ($P = .002$) by the end of intervention. A trend of body weight gain in the intervention group ($n = 17$; $P = .08$) and significant increase of body fat ($P = .002$) was observed; moreover, patients reported a significant improvement in fatigue ($P = .002$) and appetite scores ($P = .006$) under quality-of-life domains at the end of intervention. **Conclusions** Embedding a nutrition-sensitive intervention (IAtta) within Indian palliative care therapy may improve quality of life and stabilize body weight in cancer cachexia patients.

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DOI: 10.1177/1534735416651968

PMID: 27252077 [PubMed - as supplied by publisher]

61: Kar P, Chawla H, Saha S, Tandon N, Goswami R. Identification of reference housekeeping-genes for mRNA expression studies in patients with type 1 diabetes. *Mol Cell Biochem*. 2016 Jun;417(1-2):49-56. doi: 10.1007/s11010-016-2712-3. PubMed PMID: 27160934.

Selection of appropriate housekeeping-genes as reference is important in mRNA expression-related experiments. It is more important in diabetes since hyperglycemia per se can influence expression of housekeeping-genes. RNA

expression of Glyceraldehyde-3-phosphate-dehydrogenase, β -actin and 18S-ribosomal-RNA, Hypoxanthine-phosphoribosyl-transferase (HPRT), Tyrosine-3-monooxygenase/tryptophan (YHWAZ), β 2-microglobulin (β 2M), TATA-binding-protein (TBP), and Ubiquitin C and cytochrome1 (CYC1) assessed in circulating-lymphocytes-(PBMC) of patients with type-1-diabetes and healthy controls. The stability ('M' value <1.02) and number of housekeeping-genes required for normalization in qRT-PCR were determined by 'ge-norm software.' Vitamin-D-receptor (VDR) was used as a target gene. All the nine genes tested had sufficient 'M' value in diabetes and healthy controls. However, housekeeping-genes indicated a relatively higher stability of expression in healthy controls in comparison to diabetes. Use of single housekeeping-genes brought gross variation in the calculation of VDR-mRNA copies. The ge-norm software suggested geometric mean of five housekeeping-genes for ideal normalization in diabetes (CYC1, β -actin, YHWAZ, HPRT, and β 2M) and only three in controls (CYC1, β -actin, and TBP). HbA1c did not correlate with expression of any of the nine housekeeping-genes. Thus, geometric mean of CYC1, β -actin, YHWAZ, HPRT, and β 2M needs to be used for ideal normalization of mRNA in type-1-diabetes. Similar studies are required in other population.

DOI: 10.1007/s11010-016-2712-3

PMID: 27160934 [PubMed - in process]

62: Kavin K, Vijay S, Devendra L, Kamran F. Patient satisfaction after open reduction and internal fixation through lateral extensile approach in displaced intraarticular calcaneal fractures (Sander's type II and III). J Clin Orthop Trauma. 2016 Oct-Dec;7(4):296-301. PubMed PMID: 27857507; PubMed Central PMCID: PMC5106478.

AIM: To determine patient satisfaction in the patients of displaced intraarticular calcaneal fractures treated with standard lateral approach. METHOD: The patients of displaced calcaneal fractures (Sander's type II and III) treated between March 2009 and March 2012 were included in the retrospective review and functional outcome was evaluated using American Orthopaedic Foot and Ankle Society (AOFAS) hind foot score, Creighton Nebraska Health Foundation Assessment (CNHFA) scale and foot function index (FFI). RESULT: The cohort included 26 patients (19 males: seven were females) with a mean age of 38.16 ± 13.53 years (range 18-64 years). The mean period of follow-up was 24.42 ± 6.68 months. The patients achieved good functional scores after anatomical reduction of the fracture. The complication rate was low following strict inclusion criteria. CONCLUSION: Careful patient selection in displaced intraarticular calcaneal fractures treated through lateral extensile approach achieves good patient satisfaction.

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PMCID: PMC5106478 [Available on 2017-10-01]

PMID: 27857507 [PubMed - in process]

63: Khaiwal R, Singh T, Tripathy JP, Mor S, Munjal S, Patro B, Panda N. Assessment of noise pollution in and around a sensitive zone in North India and its non-auditory impacts. Sci Total Environ. 2016 Oct 1;566-567:981-7. doi: 10.1016/j.scitotenv.2016.05.070. PubMed PMID: 27318606.

Noise pollution in hospitals is recognized as a serious health hazard. Considering this, the current study aimed to map the noise pollution levels and to explore the self reported non-auditory effects of noise in a tertiary medical institute. The study was conducted in an 1800-bedded tertiary hospital where 27 sites (outdoor, indoor, road side and residential areas) were monitored for exposure to noise using Sound Level Meter for 24h. A detailed noise survey was also conducted around the sampling sites using a structured questionnaire to

understand the opinion of the public regarding the impact of noise on their daily lives. The equivalent sound pressure level (Leq) was found higher than the permissible limits at all the sites both during daytime and night. The maximum equivalent sound pressure level (Lmax) during the day was observed higher (>80dB) at the emergency and around the main entrance of the hospital campus. Almost all the respondents (97%) regarded traffic as the major source of noise. About three-fourths (74%) reported irritation with loud noise whereas 40% of respondents reported headache due to noise. Less than one-third of respondents (29%) reported loss of sleep due to noise and 8% reported hypertension, which could be related to the disturbance caused due to noise. Noise levels in and around the hospital was well above the permissible standards. The recent Global Burden of Disease highlights the increasing risk of non communicable diseases. The non-auditory effects studied in the current work add to the risk factors associated with non communicable diseases. Hence, there is need to address the issue of noise pollution and associated health risks specially for vulnerable population.

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DOI: 10.1016/j.scitotenv.2016.05.070
PMID: 27318606 [PubMed - in process]

64: Khandpur S, Sharma VK. Assessment of Efficacy of the 595-nm Pulsed Dye Laser in the Treatment of Facial Port-Wine Stains in Indian Patients. *Dermatol Surg*. 2016 Jun;42(6):717-26. doi: 10.1097/DSS.0000000000000723. PubMed PMID: 27158882.

BACKGROUND: Pulsed dye lasers have revolutionized treatment of port-wine stains (PWS). The authors' previous study with a 585-nm/0.45-millisecond pulsed dye laser (PDL) showed 25% to 75% improvement in 60% of facial PWS.

METHODS: The authors analyzed data on facial PWS treated with a 595-nm tunable PDL in Indian patients. Response was assessed subjectively on a scale of -1 to 5 (Investigator Global Assessment) by comparing pretreatment and posttreatment photographs. Patients' perception of change in PWS was also noted on a visual analog scale from 0 to 10 (Patient Global Assessment). Side effects were recorded.

RESULTS: A total of 74 flat and 24 hypertrophic PWS in skin Types IV and V with a median lesion size of 56 cm and 102 cm, respectively, and color ranging from pink to purple were treated. They underwent a mean of 7.3 and 8.5 sessions (range: 4-10 session), respectively. A mean lightening of 54% in flat and 40% in hypertrophic PWS was observed. After 10 treatments, 46.6% of flat PWS cases showed >75% lightening and an equal number had 25% to 75% improvement. A >75% improvement was observed in 12.5% of hypertrophic PWS with 75% of cases showing between 25% to 75% improvement. No significant side effects were noted.

CONCLUSION: The 595-nm tunable PDL produced moderate response with no significant side effects.

DOI: 10.1097/DSS.0000000000000723
PMID: 27158882 [PubMed - in process]

65: Khatrri K, Sharma V, Farooque K, Tiwari V. Surgical Treatment of Unstable Distal Radius Fractures With a Volar Variable-Angle Locking Plate: Clinical and Radiological Outcomes. *Arch Trauma Res*. 2016 May 9;5(2):e25174. doi: 10.5812/atr.25174. PubMed PMID: 27679785; PubMed Central PMCID: PMC5035514.

BACKGROUND: Unstable distal end radius fractures are difficult to manage and so various treatment modalities have been described. The use of variable-angle locking plates is promoted for the management of these fractures.

OBJECTIVES: This study aimed to evaluate the functional and radiological outcomes in unstable distal end radius fractures treated with variable-angle locking plates.

PATIENTS AND METHODS: We reviewed 23 unstable distal end radius fractures that were treated at our institution with volar variable-angle locking plates. The mean age of the patients was 32.82 ± 11.81 years (range 19 to 62) and the mean duration of follow-up was 11.04 ± 2.47 months (range 6 to 15). All of the patients underwent open reduction and internal fixation with a variable-angle locking plate. Radiological parameters such as radial inclination, length, tilt, and ulnar variance were measured at six weeks and at the final follow-up. The functional evaluation was conducted by measuring the range of motion at the wrist joint as well as the grip strength. Gartland and Werley's demerit scoring system was used to assess the final outcome.

RESULTS: There were two cases of superficial infection that responded to oral antibiotics. One patient had developed a hypertrophic scar, while another had carpal tunnel syndrome that was conservatively managed. There was a significant improvement in the functional indices from six weeks to the final follow-up, while the radiological parameters were maintained. According to Gartland and Werley, excellent results were reported in 65.2% cases, while good results were present in 35% cases.

CONCLUSIONS: The use of variable-angle locking plates in treating unstable distal end radius fractures is associated with excellent to good functional outcomes with minimal complications.

DOI: 10.5812/at.25174

PMCID: PMC5035514

PMID: 27679785 [PubMed]

66: Khunger JM, Chopra A, Arora S, Pati HP. Reconfirming HPLC-Detected Abnormal Haemoglobins by a Second Independent Technique: A Judicious Approach. *Indian J Hematol Blood Transfus.* 2016 Jun;32(Suppl 1):304-6. doi: 10.1007/s12288-014-0493-y. PubMed PMID: 27408419; PubMed Central PMCID: PMC4925479.

67: Kumar A, Agrawal D, Sharma BS. The Role of Endoscopic Lavage in Recalcitrant Multidrug-Resistant Gram-Negative Ventriculitis Among Neurosurgical Patients. *World Neurosurg.* 2016 Sep;93:315-23. doi: 10.1016/j.wneu.2016.06.022. PubMed PMID: 27312390.

INTRODUCTION: Ventriculitis is a serious infection associated with high mortality even when both intravenous (IV) and intrathecal (IT) antibiotics are administered. Poor outcome in patients with ventriculitis indicates the need to be more aggressive in our attempts to expeditiously eradicate the infection. The purpose of this study was to evaluate the role of endoscopic lavage (EL) in patients with severe purulent ventriculitis, unresponsive to IV and IT antibiotics.

METHODS: All consecutive patients with severe ventriculitis caused by multidrug-resistant gram-negative bacteria, undergoing EL after failure of prolonged courses of IV and IT antibiotics, were included in the study. The outcome in all these patients was otherwise expected to be uniformly dismal.

RESULTS: There were 5 males and 2 females. The age range was one month to 45 years. All patients had frank intraventricular pus. *Acinetobacter baumannii* was the most common organism grown in cultures. Two patients had multiple bacterial growth in cerebrospinal fluid cultures. The duration of pre-EL IV/IT antibiotics ranged from 3 to 8 weeks. Microbiological cure was achieved in all (7/7) and clinical cure in 86% of patients (6/7). One patient died despite achieving cerebrospinal fluid sterilization 3 months later as a result of progressive white matter edema.

CONCLUSIONS: The addition of IT antibiotics has resulted in improved outcome in patients with ventriculitis; however, some patients continue to be unresponsive to antibiotics. EL can play a complementary role in eradicating such recalcitrant infections. EL should be considered in any patient with ventriculitis, if infection persists even after ~7-10 days of IV and IT antibiotics.

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DOI: 10.1016/j.wneu.2016.06.022

PMID: 27312390 [PubMed - in process]

68: Kumar A, Aggarwal K, Agrawal H, Sharma S, Garg PK. Unicentric Castleman Disease: An Unusual Cause of An Isolated Neck Mass. *Malays J Med Sci*. 2016 Jul;23(4):86-9. doi: 10.21315/mjms2016.23.4.12. PubMed PMID: 27660550; PubMed Central PMCID: PMC5025068.

Castleman disease (CD) is a rare lymphoproliferative disorder of unknown aetiology. It manifests in two distinct clinical presentations: unicentric and multicentric. Unicentric CD is rare and may present as an isolated neck mass. A 22-year-old man presented with a 6-month history of right neck swelling that occupied the posterior triangle of the right neck region. After surgical exploration, a solitary, well defined, and hyper vascular mass was excise. A histopathological examination confirmed the lesion as CD, hyaline-vascular variant. CD of the neck is a diagnosis that is usually not taken into consideration while evaluating neck masses due to its rarity and unassuming presentation. It should be keep in the differential diagnosis of neck masses as the clinical and radiological features evade a firm diagnosis. The treatment of unicentric CD is complete surgical excision, which cures the patient.

DOI: 10.21315/mjms2016.23.4.12

PMCID: PMC5025068

PMID: 27660550 [PubMed]

69: Kumar M, Bhoi S. Impaired hematopoietic progenitor cells in trauma hemorrhagic shock. *J Clin Orthop Trauma*. 2016 Oct-Dec;7(4):282-285. Review. PubMed PMID: 27857504; PubMed Central PMCID: PMC5106469.

Hemorrhagic shock (HS) is the major cause of death during trauma. Mortality due to HS is about 50%. Dysfunction of hematopoietic progenitor cells (HPCs) has been observed during severe trauma and HS. HS induces the elevation of cytokines, granulocyte-colony stimulating factor (G-CSF), peripheral blood HPCs, and circulating catecholamines, and decreases the expression of erythropoietin receptor connected with suppression of HPCs. Impaired HPCs may lead to persistent anemia and risk of susceptibility to infection, sepsis, and MOF. There is a need to reactivate impaired HPCs during trauma hemorrhagic shock.

DOI: 10.1016/j.jcot.2016.05.013

PMCID: PMC5106469 [Available on 2017-10-01]

PMID: 27857504 [PubMed - in process]

70: Kumar P, Yadav AK, Misra S, Kumar A, Chakravarty K, Prasad K. Role of Interleukin-10 (-1082A/G) gene polymorphism with the risk of ischemic stroke: a meta-analysis. *Neurol Res*. 2016 Sep;38(9):823-30. doi: 10.1080/01616412.2016.1202395. PubMed PMID: 27363685.

The role of anti-inflammatory Interleukin-10 (IL-10) cytokine gene polymorphism with the risk of ischemic stroke (IS) remains controversial. The aim of present meta-analysis was to investigate the association of IL-10 (-1082 A/G) gene polymorphism with the risk of IS. A literature search for candidate gene association studies published before 29 February 2016 was conducted in the PubMed, EMBASE, Google Scholar, and TRIP database. The following search terms were used: 'Interleukin-10' or 'IL-10' and 'Ischemic stroke' or 'IS' and 'Cerebral Infarction' or 'CI' and 'genetic polymorphism' or 'single nucleotide polymorphisms' or 'SNP'. Fixed or random effects models were used to estimate the pooled odds ratios (ORs) and 95% confidence intervals (CIs). Begg's funnel plot

was used to assess the potential for publication bias. In our meta-analysis, five case-control studies involving 1209 IS cases and 1139 controls were included. Overall, there was no significant association between IL-10 (-1082 A/G) [rs1800896] and risk of IS under dominant [AA + AG vs. GG], recessive [AA vs. AG + GG], and allelic [G vs. A] models. However, based on Trial of Org 10172 in Acute Stroke Treatment (TOAST) classification, we observed significant association of IL-10 (-1082 A/G) gene polymorphism with the risk of IS for Large Vessel Disease (LVD), Small Vessel Disease (SVD), and other (others due to determined and undetermined etiology) subtypes of IS. This is the first meta-analysis to conclude that IL-10-1082A/G gene polymorphism is associated with the risk of LVD, SVD, and other subtypes of IS. Further well-designed large sample size studies based on TOAST classification are needed to validate these findings.

DOI: 10.1080/01616412.2016.1202395
PMID: 27363685 [PubMed - in process]

71: Kumar R, Kumar R, Kumar V, Malhotra R. Potential clinical implication of (18) F-FDG PET/CT in diagnosis of periprosthetic infection and its comparison with (18) F-Fluoride PET/CT. *J Med Imaging Radiat Oncol.* 2016 Jun;60(3):315-22. doi: 10.1111/1754-9485.12444. PubMed PMID: 26956663.

INTRODUCTION: The differentiation between septic and aseptic loosening of prosthetic hip joint is a major challenge for the clinician. This study assessed and compared the diagnostic accuracy of (18) F- fluoro-deoxyglucose positron emission tomography/computed tomography ((18) F-FDG PET/CT) with (18) F-fluoride PET/CT for diagnosis of infection in the painful hip prosthesis.

METHODS: In this prospective study, we included the patients with painful hip prostheses with radiological or clinical suspicion of loosening, those who had given the written consent and scheduled for clinical and diagnostic evaluation before revision arthroplasty. To rule out the nature of loosening (septic vs. aseptic), all the patients underwent (18) F-Fluoride PET/CT and (18) F-FDG PET/CT. The reference standard for periprosthetic infection was based on histopathology and/or microbial culture and/or intraoperative findings.

RESULTS: We prospectively evaluated 42 patients of hip prostheses before revision arthroplasty. Visual and semi-quantitative analysis of both the positron emission tomography (PET) images was done and the results were compared with a reference standard. The sensitivity, specificity, positive predictive value (PPV), negative predictive values (NPV) and accuracy of (18) F-FDG PET/CT were 93.7%, 92.3%, 88.2%, 96% and 92.8% respectively. The sensitivity, specificity, PPV, NPV and accuracy of (18) F-fluoride PET/CT were 75%, 96.1%, 92.3%, 86% and 88.1% respectively. FDG PET/CT has higher sensitivity, NPV and accuracy as compared to compared to Fluoride PET/CT and comparable specificity and PPV.

CONCLUSIONS: Fluoride PET/CT had shown slightly higher specificity than FDG-PET/CT, but the overall diagnostic performance of FDG-PET/CT in periprosthetic infection is optimal in routine clinical practice and better than fluoride PET/CT.

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DOI: 10.1111/1754-9485.12444
PMID: 26956663 [PubMed - in process]

72: Kumar R, Nair V, Gupta YK, Singh S, Arunraja S. Berberis aristata Ameliorates Adjuvant-Induced Arthritis by Inhibition of NF- κ B and Activating Nuclear Factor-E2-related Factor 2/hem Oxygenase (HO)-1 Signaling Pathway. *Immunol Invest.* 2016 Aug;45(6):473-89. doi: 10.3109/08820139.2016.1172638. PubMed PMID: 27294302.

The present study was carried out to investigate the anti-arthritic activity of

Berberis aristata hydroalcoholic extract (BAHE) in formaldehyde-induced arthritis and adjuvant-induced arthritis (AIA) model. Arthritis was induced by administration of either formaldehyde (2% v/v) or CFA into the subplantar surface of the hind paw of the animal. In formaldehyde-induced arthritis and AIA, treatment of BAHE at doses 50, 100 and 200 mg/kg orally significantly decreased joint inflammation as evidenced by decrease in joint diameter and reduced inflammatory cell infiltration in histopathological examination. BAHE treatment demonstrated dose-dependent improvement in the redox status of synovium (decrease in GSH, MDA, and NO levels and increase in SOD and CAT activities). The beneficial effect of BAHE was substantiated with decreased expression of inflammatory markers such as IL-1 β , IL-6, TNF-R1, and VEGF by immunohistochemistry analysis in AIA model. BAHE increased HO-1/Nrf-2 and suppressed NF- κ B mRNA and protein expression in adjuvant immunized joint. Additionally, BAHE abrogated degrading enzymes, as there was decreased protein expression of MMP-3 and -9 in AIA. In conclusion, we demonstrated the anti-arthritic activity of Berberis aristata hydroalcoholic extract via the mechanism of inhibition of NF- κ B and activation of Nrf-2/HO-1.

DOI: 10.3109/08820139.2016.1172638

PMID: 27294302 [PubMed - in process]

73: Kumar V, Ravani RD, Kuthirummal N, Molla K. Ultra-wide field imaging of bilateral idiopathic retinal dialysis. BMJ Case Rep. 2016 Jun 30;2016. pii: bcr2016216212. doi: 10.1136/bcr-2016-216212. PubMed PMID: 27365021.

74: Kumawat B, Tripathy K, Venkatesh P, Chawla R, Balodia S. Lacrimal abscess mimicking a choroidal mass: an ultrawide field evaluation. Can J Ophthalmol. 2016 Jun;51(3):e92-4. doi: 10.1016/j.jcjo.2016.01.010. PubMed PMID: 27316290.

75: Leishangthem GD, Choudhury A, Singh ND, Bhosale S. Subcutaneous *Dirofilaria repens* infestation in non-descript canines. J Parasit Dis. 2016 Jun;40(2):558-61. doi: 10.1007/s12639-014-0508-5. PubMed PMID: 27413341; PubMed Central PMCID: PMC4927490.

Dirofilaria repens is a filarial nematode which cause subcutaneous dirofilariasis. Dogs, foxes and cats are the definitive hosts and principal reservoirs of the parasite. We report cases of *D. repens* infestation in non-descript canines from Goa, India. The nematodes were enclosed within fibrous capsule or freely present in the tunica vaginalis of the testes, in sub-cutaneous tissue of foreleg and body cavity. The parasite showed well-developed thick multilayered cuticular ridges in the outermost layer, followed by transverse smooth muscles striations.

DOI: 10.1007/s12639-014-0508-5

PMCID: PMC4927490 [Available on 2017-06-01]

PMID: 27413341 [PubMed]

76: Lodha R, Randev S, Kabra SK. Oral Antibiotics for Community acquired Pneumonia with Chest indrawing in Children Aged Below Five Years: A Systematic Review. Indian Pediatr. 2016 Jun 8;53(6):489-95. PubMed PMID: 27376603.

OBJECTIVE: To determine the efficacy of oral antibiotics in under-five children with pneumonia and chest indrawing.

METHODS: We included controlled clinical trials (randomized or quasi randomized) that compared the efficacy of oral antibiotics versus parenteral antibiotics for treatment of community acquired pneumonia with chest indrawing (severe pneumonia as defined by the World Health Organizations guidelines) in children below 60 months of age. Data were extracted and managed using RevMan software. Main outcome variables were: treatment failure rate, relapse rate, death rate, need for hospitalization, and severe adverse effects.

RESULTS: We identified four randomized controlled trials involving 4400 children who were diagnosed to have severe pneumonia but were feeding well and not hypoxic. Baseline characteristics of children in the two treatment arms (oral and parenteral antibiotics) were similar. In two studies, oral antibiotics were administered on an ambulatory basis, while in two, oral antibiotics were used in hospitalized children. Failure rate in children receiving oral antibiotics was 13% (288/2208) while that in children receiving parenteral antibiotics was 13.8% (302/2183) (OR 0.93; 95% CI 0.78, 1.11). Failure rates were not affected by the type of oral antibiotic, or presence of wheeze. Relapse rates, hospitalization or serious adverse events were similar in the two groups.

CONCLUSIONS: Children with tachypnea with chest indrawing without signs and symptoms of very severe pneumonia may be treated with oral antibiotics.

PMID: 27376603 [PubMed - in process]

77: Lohani N, Singh HN, Moganty RR. Structural aspects of the interaction of anticancer drug Actinomycin-D to the GC rich region of hmgb1 gene. *Int J Biol Macromol*. 2016 Jun;87:433-42. doi: 10.1016/j.ijbiomac.2016.02.060. PubMed PMID: 26923673.

The high mobility group box 1 protein has been identified as a key player in chromatin homeostasis including transcription regulation, recombination, repair, and chromatin remodeling. Emerging findings indicate HMGB1 protein over expression in nearly all types of human cancers and inflammatory disorders. Thus it is considered as a potential therapeutic target for treating various malignancies. We screened the promoter region of hmgb1 gene and selected a positive regulatory element of 25 base pair duplex (25RY) (-165 to -183) as a potential target for chemotherapeutic intervention. The molecular interaction of actinomycin (ACT) with the regulatory region of hmgb1 gene was characterized by spectroscopic, calorimetric and molecular docking studies. The hypochromic and bathochromic shift in the absorption spectrum, stabilization of 25RY duplex against thermal denaturation, perturbation of CD spectrum of duplex and enhancement of fluorescence intensity of actinomycin indicate strong binding of actinomycin to the hmgb1 promoter region (25RY). The energetics was characterized to be endothermic and entropy driven. All these results are in good agreement with in silico investigation that suggest minor groove binding with effective intercalation at GC bases of actinomycin to 25RY. This study identifies hmgb1 gene promoter region a potential target for the anticancer therapeutiucs.

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DOI: 10.1016/j.ijbiomac.2016.02.060

PMID: 26923673 [PubMed - indexed for MEDLINE]

78: Lomi N, Sharma R, Khokhar S, Dada T, Vanathi M, Agarwal T. Risk factors for intra-operative complications during phacoemulsification performed by residents. *Int Ophthalmol*. 2016 Jun;36(3):401-6. doi: 10.1007/s10792-015-0146-7. PubMed PMID: 26494477.

The purpose of this study was to determine the risk factors for occurrence of intra-operative complications during phacoemulsification performed by residents. One hundred fifty patients with cataract who underwent phacoemulsification by residents, with an experience of five or more phacoemulsification surgery, at a tertiary care centre were included in this study. The pre-operative data of these patients were collected from the hospital records. Surgeons were interviewed immediately after the surgery regarding the surgeon experience, phacoemulsification technique, machine factors, and intra-operative complications. Statistical analysis was done to determine pre-operative and intra-operative risk factors. The overall surgical complication rate in resident-performed phacoemulsification was 37 % of which major and minor

complications were 21 and 16 %, respectively. Success in terms of placement of intraocular lens in capsular bag was 84 %. The most common major and minor complications found were posterior capsular tear and irregular capsulorhexis, respectively. Systemic and ocular features of patients as well as type of machine (longitudinal versus torsional longitudinal) had no significant association in terms of complication rate. Increase in success rate was seen with increase in semester and number of surgeries performed. Patient factors including general physical condition, systemic diseases, and anatomical factors do not influence success in resident-performed phacoemulsification. With increase in semester of residents, there is a significant decrease in intra-operative complications. Minor complications in the beginning of case lead to increase in major complications later on during the case and decrease in success rate by junior-semester residents.

DOI: 10.1007/s10792-015-0146-7
PMID: 26494477 [PubMed - in process]

79: Mahapatra A, Sharma P. Internet snapshot survey: A novel methodology to monitor novel psychotropic substances and its need in Asia. *Asian J Psychiatr.* 2016 Jun;21:7-8. doi: 10.1016/j.ajp.2016.01.014. PubMed PMID: 27208446.

Recently there has been upsurge in the use of novel psychoactive substances, commonly known as legal highs. There is limited data available on the use and availability of these substances. Internet snapshot methodology has been successfully used in Europe and America to understand rapidly adapting internet based drug market but no data is available from Asian region. Hence there is need of application of similar methodology in Asia to explore and gauge the problem statement about these substances.

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DOI: 10.1016/j.ajp.2016.01.014
PMID: 27208446 [PubMed - in process]

80: Mahapatra SJ, Shalimar. Hepatocyte Regeneration and Inhibition of Proliferation: Two Sides of a Coin. *J Clin Exp Hepatol.* 2016 Jun;6(2):154-6. doi: 10.1016/j.jceh.2016.06.001. PubMed PMID: 27493464; PubMed Central PMCID: PMC4963253.

81: Maitra S, Mutheryil N, Patnaik R, Bhattacharjee S. Reexpansion pulmonary edema after hepatic hydatid cyst excision. *J Clin Anesth.* 2016 Nov;34:310-1. doi: 10.1016/j.jclinane.2016.05.003. PubMed PMID: 27687398.

82: Mallick S, Benson R, Julka PK, Rath GK. Altered fractionation radiotherapy in head and neck squamous cell carcinoma. *J Egypt Natl Canc Inst.* 2016 Jun;28(2):73-80. doi: 10.1016/j.jnci.2016.02.004. Review. PubMed PMID: 26994645.

INTRODUCTION: Fractionation plays a pivotal role in determining the effectiveness of radiation and follows the principle of 4 "R" of radiobiology. The various altered fractionation schedules used are hyper-fractionation, accelerated fractionation, and hypo fractionation.

METHODS: We reviewed the landmark articles published in the peer reviewed journals to summarize the beneficial role of altered fractionation in the treatment of head and neck carcinoma.

RESULTS: Hyper-fractionation definitely gives very good overall survival benefit for locally advanced head and neck patient's equivalent to survival benefit to that of concurrent chemoradiotherapy. Adding concomitant chemotherapy to altered fractionation is a logical approach to improve survival in locally advanced head and neck cancer patients, but it may be at a cost of higher toxicity. Mild hypo fractionation may be beneficial in early laryngeal cancers and may help in

achieving better local control.

CONCLUSION: Altered fractionation is a very important treatment schema and requires the reinforcement of its use.

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DOI: 10.1016/j.jnci.2016.02.004

PMID: 26994645 [PubMed - in process]

83: Mandal A, Sahi PK. Nasopharyngeal Carriage of Organisms in Children With Severe Pneumonia. *Indian Pediatr.* 2016 Jun 6;53(6):535-6. PubMed PMID: 27376615.

84: Manivannan P, Purohit A, Somasundaram V, Ahuja A, Aggarwal M, Kumar R, Singh PK, Pati HP, Mishra P, Seth T, Mahapatra M. Leukemic Transformation of Severe Aplastic Anemia Following Matched Allogenic Stem Cell Transplantation, Transplanted Again in CR 1. *Indian J Hematol Blood Transfus.* 2016 Jun;32(Suppl 1):223-7. doi: 10.1007/s12288-014-0484-z. PubMed PMID: 27408397; PubMed Central PMCID: PMC4925474.

Aplastic anemia (AA) is a life-threatening bone marrow failure disorder, if untreated, is associated with very high mortality. Allogenic bone marrow transplantation (BMT) is the standard of care for severe aplastic anemia (SAA) patients those who are younger than 40 years of age. The development of secondary malignancies in post-BMT setting for AA is a rare, however, well documented phenomenon. Among the secondary malignancies, development of acute myeloid leukemia is even rarer entity. Here we report a case of acute myeloid leukemia following human leucocyte antigen (HLA) matched sibling peripheral blood stem cell transplant (PBSCT) in a case of SAA. The patient achieved complete remission (CR) following chemotherapy and in CR1, a second HLA matched PBSCT from a different donor was offered. The patient is presently in remission at day +180 post-PBSCT.

DOI: 10.1007/s12288-014-0484-z

PMCID: PMC4925474 [Available on 2017-06-01]

PMID: 27408397 [PubMed]

85: Meel R, Lokdarshi G, Kashyap S, Sharma S. Giant myxofibrosarcoma of the orbit: a rare case and a review of the literature. *BMJ Case Rep.* 2016 Jun 13;2016. pii: bcr2015214107. doi: 10.1136/bcr-2015-214107. PubMed PMID: 27298287.

A 65-year-old man presented with giant orbital myxofibrosarcoma with no extraorbital extension. Imaging was suggestive of mesenchymal malignancy with significant vascularity. Incisional biopsy was suggestive of low-grade fibromyxoid sarcoma. The clinical and imaging features did not support the pathological diagnosis. Histopathology of the exenterated sample revealed features of high-grade myxofibrosarcoma. To the best of our knowledge, this is the largest reported myxofibrosarcoma of the orbit. Adjuvant radiotherapy was advised. Correlating the case history, imaging and histopathology, this case can best be summarised as a natural history of conversion from a low to high-grade myxoid malignancy. We emphasise that the overlapping features of myxoid malignancy (fibromyxosarcoma vs myxofibrosarcoma) and regional variation in tumour morphology in biopsy specimen may mislead the clinician. Therefore, knowledge about the key differentiating features as well as incisional biopsy of each radiologically different area can increase the possibility of correct diagnosis and management of each case.

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DOI: 10.1136/bcr-2015-214107

PMID: 27298287 [PubMed - in process]

86: Melgandi W, Benson R, Hakin A, Bhasker S. Porocarcinoma scalp with high risk features treated with surgery and adjuvant radiotherapy: A case report and review of literature. *J Egypt Natl Canc Inst.* 2016 Sep;28(3):195-8. doi: 10.1016/j.jnci.2016.05.004. PubMed PMID: 27302529.

Eccrine porocarcinoma is a rare malignant sweat gland tumor arising from the intra dermal part of the gland and accounts for only 0.005% of all epithelial cutaneous tumors. Commonly involved site includes extremities and face. Scalp is a rare site for porocarcinoma with less than 20 reported cases so far. Wide local excision with clear margins remains the treatment of choice. Review of literature revealed a local recurrence rate of 37.5% and a nodal involvement risk of 20%. Porocarcinoma of the scalp is peculiar in that the primary tumor may be large at presentation, making surgery with adequate margins difficult. Adjuvant radiotherapy must be considered in a case to case basis due to the high local recurrence rates compared to other sites of porocarcinoma and should be given to all patients with close margins and extra capsular extension.

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DOI: 10.1016/j.jnci.2016.05.004
PMID: 27302529 [PubMed - in process]

87: Mishra B, Singhal S, Bhirud DP, Kumar N, Mallick S. The First Ever Reported Case of Primary Synovial Sarcoma of Scalp. *Case Rep Surg.* 2016;2016:5358790. doi: 10.1155/2016/5358790. PubMed PMID: 27446625; PubMed Central PMCID: PMC4942655.

Synovial sarcomas are a rare entity with predilection for extremities and joints. The literature suggests that these tumours are rare in the head and neck region. Very few authors have reported their origin in head. Among the ones occurring in the head region, most of them are found to originate from the parotid area. According to our extensive review of available literature, there has been no reported case of the primary case of synovial sarcoma originating from the scalp convexity. We hereby report one such case in a young female which, by far to the best of our knowledge, is the first ever reported case of a synovial sarcoma occurring on the scalp. The tumour is also the largest ever reported in the literature and posed a great surgical and diagnostic challenge to our team. Through this paper, we recommend that synovial sarcoma should be included as a very rare yet possible differential diagnosis for the scalp tumours.

DOI: 10.1155/2016/5358790
PMCID: PMC4942655
PMID: 27446625 [PubMed]

88: Mishra S, Kumar R, Malhotra N, Singh N, Dada R. Mild oxidative stress is beneficial for sperm telomere length maintenance. *World J Methodol.* 2016 Jun 26;6(2):163-70. doi: 10.5662/wjm.v6.i2.163. PubMed PMID: 27376021; PubMed Central PMCID: PMC4921947.

AIM: To evaluate telomere length in sperm DNA and its correlation with oxidative stress (normal, mild, severe).

METHODS: The study included infertile men (n = 112) and age matched fertile controls (n = 102). The average telomere length from the sperm DNA was measured using a quantitative real time PCR based assay. Seminal reactive oxygen species (ROS) and 8-Isoprostane (8-IP) levels were measured by chemiluminescence assay and ELISA respectively.

RESULTS: Average sperm telomere length in infertile men and controls was $0.609 \pm$

0.15 and 0.789 ± 0.060 , respectively ($P < 0.0001$). Seminal ROS levels in infertile was higher [66.61 ± 28.32 relative light units (RLU)/s/million sperm] than in controls (14.04 ± 10.67 RLU/s/million sperm) ($P < 0.0001$). The 8-IP level in infertile men was significantly higher (421.55 ± 131.29 pg/mL) than in controls (275.94 ± 48.13 pg/mL) ($P < 0.001$). When correlated to oxidative stress, in normal range of oxidative stress (ROS, 0-21.3 RLU/s/million sperm) the average telomere length in cases was 0.663 ± 0.14 , in mild oxidative stress (ROS, 21.3-35 RLU/s/million sperm) it was elevated (0.684 ± 0.12) and in severe oxidative stress (ROS > 35 RLU/s/million sperm) average telomere length was decreased to 0.595 ± 0.15 .

CONCLUSION: Mild oxidative stress results in lengthening of telomere length, but severe oxidative stress results in shorter telomeres. Although telomere maintenance is a complex trait, the study shows that mild oxidative stress is beneficial in telomere length maintenance and thus a delicate balance needs to be established to maximize the beneficial effects of free radicals and prevent harmful effects of supra physiological levels. Detailed molecular evaluation of telomere structure, its correlation with oxidative stress would aid in elucidating the cause of accelerated telomere length attrition.

DOI: 10.5662/wjm.v6.i2.163
PMCID: PMC4921947
PMID: 27376021 [PubMed]

89: Misra S, Kumar P, Kumar A, Sagar R, Chakravarty K, Prasad K. Genetic association between inflammatory genes (IL-1 α , CD14, LGALS2, PSMA6) and risk of ischemic stroke: A meta-analysis. *Meta Gene*. 2016 Jan 19;8:21-9. doi: 10.1016/j.mgene.2016.01.003. Review. PubMed PMID: 27014587; PubMed Central PMCID: PMC4792905.

BACKGROUND: Sequence variations in genes involved in inflammatory system are known to contribute to the risk of cerebrovascular diseases (CVD) including stroke. Very few number of studies have been published in the context of the association between Interleukin-1 α (IL-1 α), CD14 cell surface glycoprotein (CD14), Galectin-2-encoding gene (LGALS2)and proteasome subunit type 6 (PSMA6) gene polymorphisms with susceptibility to ischemic stroke (IS).

OBJECTIVE: The present meta-analysis aimed to provide a comprehensive account of the association between IL-1 α (-C889T and -C511T), CD14 (-C159T), LGALS2 (-C3279T) and PSMA6 (-C8G) gene polymorphisms and susceptibility to IS.

METHODS: A literature search for eligible genetic studies published before August 31, 2015 was conducted in the PubMed, Medline, EMBASE, OVID, and Google Scholar databases. Fixed or random effects models were used to estimate the Pooled Odds ratio (OR) and 95% confidence interval (CI) using RevMan 5.3 software.

RESULTS: Total 21 studies were included in our meta-analysis. No significant association was observed between IL-1 α (-C889T) [OR = 1.18, 95% CI: 0.67-2.08, $P = 0.58$], IL-1 α (-C511T) [OR = 0.95, 95% CI: 0.66-1.37, $P = 0.77$],

LGALS2(-C2379T) [OR = 0.29, 95% CI: 0.02-4.26, $P = 0.37$] and CD14 (-C260T) [OR = 0.93, 95% CI: 0.77-1.11, $P = 0.42$] gene polymorphisms and risk of IS.

However, protective level of association was observed between PSMA6 (-C8G) gene polymorphism and susceptibility to IS under the recessive model [OR = 0.25, 95% CI: 0.08-0.72, $P = 0.01$].

CONCLUSION: Our meta-analysis shows that IL-1 α (-C889T and -C511T), CD14 (-C159T), LGALS2 (-C3279T) and gene polymorphisms are not significantly associated with the risk of IS while PSMA6 (-C8G) gene polymorphism may play a protective role with the susceptibility of IS. Further prospective large epidemiological studies are needed to confirm these findings in different populations.

DOI: 10.1016/j.mgene.2016.01.003
PMCID: PMC4792905
PMID: 27014587 [PubMed]

90: Mittal P, Jadhav GR, Syed S, Bhujbal ND. Cone-Beam Computed Tomography-Guided Management of C-Shaped Type III Dens Invaginatus With Peri-invagination Periodontitis in a Maxillary Canine: A Case Report. *Compend Contin Educ Dent*. 2016 Jun;37(6):e9-e12. PubMed PMID: 27525733.

Dens invaginatus (DI) is a developmental anomaly seen infrequently in maxillary canines. This article describes cone-beam computed tomography-guided nonsurgical management of type III (subtype B) DI in a permanent maxillary canine associated with a sinus tract and peri-invagination periodontitis in a 17-year-old female. After gaining access to the root canal, thorough chemo-mechanical preparation was performed and usage of intracanal medicament of calcium hydroxide was prescribed for 3 weeks, during which the sinus tract healed completely. Obturation was completed by a technique of down-packing master-cone gutta-percha, followed by backfilling with thermoplasticized gutta-percha. At 12-months follow-up, the patient was asymptomatic with complete resolution of the sinus tract and radiographic evidence of healing of periapical pathology.

PMID: 27525733 [PubMed - in process]

91: Mukherjee A, Patel CD, Naik N, Sharma G, Roy A. Quantitative assessment of cardiac mechanical dyssynchrony and prediction of response to cardiac resynchronization therapy in patients with non-ischaemic dilated cardiomyopathy using equilibrium radionuclide angiography. *Europace*. 2016 Jun;18(6):851-7. doi: 10.1093/europace/euv145. PubMed PMID: 26056184.

AIMS: The aim of this study was to evaluate equilibrium radionuclide angiography (ERNA) in prediction of response to cardiac resynchronization therapy (CRT) in non-ischaemic dilated cardiomyopathy (DCM) patients.

METHODS AND RESULTS: Thirty-two patients (23 males, 57.5 ± 12.1 years) were prospectively included. Equilibrium radionuclide angiography and clinical evaluation were performed before and 3 months after CRT implantation. Standard deviation of left ventricle mean phase angle (SD LVmPA) and difference between LV and right ventricle mPA (LV-RVmPA) expressed in degrees ($^{\circ}$) were used to quantify left intraventricular synchrony and interventricular synchrony, respectively. Left ventricular ejection fraction (LVEF) was also evaluated. At the baseline, mean NYHA class was 3.3 ± 0.5 , LVEF $22.5 \pm 5.6\%$, mean QRS duration 150.3 ± 18.2 ms, SD LVmPA $43.5 \pm 18^{\circ}$, and LV-RVmPA $30.4 \pm 15.6^{\circ}$. At 3-month follow-up, 22 patients responded to CRT with improvement in NYHA class ≥ 1 and EF $>5\%$. Responders had significantly larger SD LVmPA (51.2 ± 13.9 vs. $26.5 \pm 14^{\circ}$) and LV-RVmPA (35.8 ± 13.7 vs. $18.4 \pm 13^{\circ}$) than non-responders. Receiver-operating characteristic curve analysis demonstrated 95% sensitivity and 80% specificity at a cut-off value of 30° for SD LVmPA, and 81% sensitivity and 80% specificity at a cut-off value of 23° for LV-RVmPA in prediction of response to CRT.

CONCLUSION: Baseline SD LVmPA and LV-RVmPA derived from ERNA are useful for prediction of response to CRT in non-ischaemic DCM patients.

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DOI: 10.1093/europace/euv145
PMID: 26056184 [PubMed - in process]

92: Nagori SA, Jose A, Arora A, Gagnani S, Kholakiya Y, Agarwal B, Bhutia O, Roychoudhury A. Misconceptions Regarding Autogenous Tooth Transplantations: A Survey. *J Maxillofac Oral Surg*. 2016 Jun;15(2):173-8. doi: 10.1007/s12663-015-0821-2. PubMed PMID: 27298540; PubMed Central PMCID: PMC4871828.

AIM: The aim of this cross-sectional study was to assess knowledge regarding autogenous tooth transplantation among oral and maxillofacial surgery (OMFS) residents in India.

STUDY DESIGN: The sample of the survey consisted of Indian OMFS post-graduate residents attending the "1st Asian Oral and Maxillofacial Surgery PG Convention" held from 29th to 31st August, 2013 at Mangalore, India. Questions were asked regarding the participant's preferred tooth replacement modality, the transplantation procedure (socket preparation and stabilization of transplanted tooth); fate of the transplanted tooth (pulpal and periodontal fate) and the possibility of replacing second molars with such procedure, cross-arch transplantation and transplantation after new-socket preparation. The responses of 1st, 2nd and 3rd year residents were assessed for statistical significant difference using Fishers exact test.

RESULTS: Out of 434 residents surveyed using a pre-tested self-administered questionnaire, 287 residents responded (response rate 66 %). 74 % were aware of the possibility of autogenous third molar transplantation. Only 24 % believed a new periodontal ligament would form around the transplanted tooth. Misconceptions regarding pulp healing, socket preparation and tooth stabilization and new alveolus transplantation were also seen. 44 % had never seen the procedure and 74 % had never performed it themselves. No statistical significant difference was seen among the responses classified according to the year of training.

CONCLUSION: OMFS residents were found to have inadequate knowledge regarding autogenous tooth transplantation. Tooth transplantation needs to be included in the dental curriculum and standard OMFS textbooks with practical training in post-graduation period.

DOI: 10.1007/s12663-015-0821-2

PMCID: PMC4871828 [Available on 2017-06-01]

PMID: 27298540 [PubMed]

93: Nair V, Madan H, Sofat S, Ganguli P, Jacob MJ, Datta R, Bharadwaj P, Sarkar RS, Pandit AJ, Nityanand S, Goel PK, Garg N, Gambhir S, George PV, Chandy S, Mathews V, George OK, Talwar KK, Bahl A, Marwah N, Bhattacharya A, Bhargava B, Airan B, Mohanty S, Patel CD, Sharma A, Bhatnagar S, Mondal A, Jose J, Srivastava A; for MI3 Trial.. Authors' response. Indian J Med Res. 2016 Jun;143(6):833. doi: 10.4103/0971-5916.192081. PubMed PMID: 27748312.

94: Nayyar R, Yadav S, Singh P, Kumar R, Seth A, Dogra PN. Outcomes of Pyeloplasty in Very Poorly Functioning Kidneys: Examining the Myths. Urology. 2016 Jun;92:132-5. doi: 10.1016/j.urology.2016.02.045. PubMed PMID: 26970450.

OBJECTIVE: To assess the perioperative complications and functional midterm outcomes after pyeloplasty for poorly functioning kidneys due to ureteropelvic junction obstruction.

PATIENTS AND METHODS: We retrospectively analyzed patients who underwent pyeloplasty for primary ureteropelvic junction obstruction in very poorly functioning kidneys in terms of split renal function of $\leq 20\%$ or estimated glomerular filtration rate of $\leq 20\text{mL/minute}$. Perioperative complications and postoperative outcomes in terms of symptomatic improvement and functional stabilization or recovery were assessed.

RESULTS: A total of 32 patients with estimated glomerular filtration rate $\leq 20\text{mL/minute}$ or split function $\leq 20\%$ underwent pyeloplasty since January 2010. All patients were followed for a mean period of 26.8 months and none required reintervention for obstructive drainage, deteriorating function, or intractable pain. One patient had persistent pain requiring analgesics and overall success rate (defined as nonobstructive pattern, no deterioration in split function, and no persistent symptoms) was 93.7%. Thirteen patients (40.6%) showed significant improvement in renal function ($>5\%$ over preoperative), and in all except 1 (3.1%) case there was no further deterioration of function.

CONCLUSION: Pyeloplasty provides high rates of morphological and functional success even in very poorly functioning renal units. There is a possibility of functional recovery in one-third of patients, and in most of the rest, there is no further deterioration.

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PMID: 26970450 [PubMed - in process]

95: Pandey D, Garg PK, Jana M, Sharma J. Retroperitoneal lymphangiectasia. ANZ J Surg. 2016 Jun;86(6):517-8. doi: 10.1111/ans.12699. PubMed PMID: 24889353.

96: Panwar R, Pal S, Dash NR, Sahni P, Vij A, Misra MC. Why are we Poor Organ Donors: A Survey Focusing on Attitudes of the Lay Public From Northern India. J Clin Exp Hepatol. 2016 Jun;6(2):81-6. doi: 10.1016/j.jceh.2016.04.001. PubMed PMID: 27493454; PubMed Central PMCID: PMC4963316.

BACKGROUND: Knowledge, sociocultural views, and awareness about organ donation in the general population are important for the success of deceased organ donation. There is an urgent need to gather this information in order to find out the reasons for poor organ donation rates in India.

METHODS: A 30-item questionnaire was designed in the English and Hindi language and was administered to the lay people in order to assess their knowledge, views, and attitude regarding brain death and organ donation.

RESULTS: Three hundred and fifty-two people (male:female = 202:150; mean age = 30.6 ± 13.9 years) completed the questionnaire. Only 70% of the people were aware that the organs can be donated after brain death and only 44% thought that they understood the meaning of brain death. Media and Internet were the preferred sources for seeking information on brain death and organ donation. The majority of people (81.2%) were willing to donate organs after brain death but only 1.4% had registered for organ donation. Lack of awareness (80.1%), religious beliefs and superstitions (63.4%), and lack of faith in the healthcare system (40.3%) were believed to be the most important reasons for poor deceased organ donation rates in India. The survey also highlighted the importance of the opinion of family members and the religious leaders in making the decision for organ donation. Educational qualification above matriculation was significantly associated with the knowledge of brain death and the willingness for organ donation.

CONCLUSION: Lack of awareness appears to be the most important factor for low donation rates in India. Educating people by using media and Internet and conducting awareness programs may help in improving the donation rates.

DOI: 10.1016/j.jceh.2016.04.001
PMCID: PMC4963316 [Available on 2017-06-01]
PMID: 27493454 [PubMed]

97: Parmar A, Sharma P. Smartphone apps based psychotherapy in India: Potential benefits and pitfalls. Asian J Psychiatr. 2016 Jun;21:46-7. doi: 10.1016/j.ajp.2016.02.008. PubMed PMID: 27208457.

98: Parmar A. Gut-brain axis, psychobiotics, and mental health. Asian J Psychiatr. 2016 Aug;22:84-5. doi: 10.1016/j.ajp.2016.05.004. PubMed PMID: 27520903.

99: Pastor A, Singh AK, Shukla PK, Equbal MJ, Malik ST, Singh TP, Chaudhuri TK. Role of N-terminal region of Escherichia coli maltodextrin glucosidase in folding and function of the protein. Biochim Biophys Acta. 2016 Sep;1864(9):1138-51. doi: 10.1016/j.bbapap.2016.06.008. PubMed PMID: 27317979.

Maltodextrin glucosidase (MalZ) hydrolyses short malto-oligosaccharides from the reducing end releasing glucose and maltose in *Escherichia coli*. MalZ is a highly aggregation prone protein and molecular chaperonins GroEL and GroES assist in the folding of this protein to a substantial level. The N-terminal region of this enzyme appears to be a unique domain as seen in sequence comparison studies with other amylases as well as through homology modelling. The sequence and homology model analysis show a probability of disorder in the N-Terminal region of MalZ. The crystal structure of this enzyme has been reported in the present communication. Based on the crystallographic structure, it has been interpreted that the N-terminal region of the enzyme (Met1-Phe131) might be unstructured or flexible. To understand the role of the N-terminal region of MalZ in its enzymatic activity, and overall stability, a truncated version (Ala111-His616) of MalZ was created. The truncated version failed to fold into an active enzyme both in *E. coli* cytosol and in vitro even with the assistance of chaperonins GroEL and GroES. Furthermore, the refolding effort of N-truncated MalZ in the presence of isolated N-terminal domain didn't succeed. Our studies suggest that while the structural rigidity or orientation of the N-terminal region of the MalZ protein may not be essential for its stability and function, but the said domain is likely to play an important role in the formation of the native structure of the protein when present as an integral part of the protein.

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DOI: 10.1016/j.bbapap.2016.06.008
PMID: 27317979 [PubMed - in process]

100: Patnaik U, Sikka K, Agarwal S, Kumar R, Thakar A, Sharma SC. Cochlear re-implantation: lessons learnt and the way ahead. *Acta Otolaryngol.* 2016 Jun;136(6):564-7. doi: 10.3109/00016489.2015.1136430. PubMed PMID: 26898701.

Conclusion A cochlear re-implantation procedure is undesirable; however, the cochlear implant surgeon may have to perform a re-implantation procedure occasionally for various reasons. Following standard techniques, implant performance comparable with primary implantation may be achieved. Objective To study the causes and outcomes of cochlear re-implantation in an Asian Indian population. Study design Retrospective analysis of clinical charts over an 18-year period with prospective follow-up of patients. Methods The charts of 534 patients, who underwent cochlear implant, at an Otorhinolaryngology institutional Centre, from January 1997 to January 2015 were studied. Of these, the charts of 18 patients who underwent cochlear re-implantation were studied. The causes and audiological and speech outcomes were analysed. Results Eighteen patients (3.4%) underwent cochlear re-implantation for various reasons. The commonest indication was device failure in seven patients (39%), followed by electrode extrusion in five (28%), trauma in three (11%), electrode migration in two (11%) and improper electrode placement in one (6%) patient. The audiological performance tests and speech tests either remained the same or improved from those achieved for patients undergoing primary implantation, in 87% patients.

DOI: 10.3109/00016489.2015.1136430
PMID: 26898701 [PubMed - in process]

101: Phalak M, Mahalangikar R. Letter to editor based on article 'An evaluation of the functional and radiological results of percutaneous vertebroplasty versus conservative treatment for acute symptomatic osteoporotic spinal fractures'. *Injury.* 2016 Aug;47(8):1872-3. doi: 10.1016/j.injury.2016.05.044. PubMed PMID: 27316446.

102: Prajapati SC, Chauhan SS. Human dipeptidyl peptidase III mRNA variant I and II are expressed concurrently in multiple tumor derived cell lines and translated at comparable efficiency in vitro. *Mol Biol Rep.* 2016 Jun;43(6):457-62. doi: 10.1007/s11033-016-3996-9. PubMed PMID: 27153830.

Dipeptidyl peptidase III (DPP III) is an emerging biomarker of human cancers. Expression, specificity, and function of human DPP III (hDPP III) mRNA variant I (V-I), II (V-II), and III (V-III) are poorly understood. Here, we investigated expression of these variants in multiple human tumor derived cell lines. DNA sequencing revealed concurrent expression of hDPP III V-I and V-II in U87MG (glioblastoma), SCC4 (squamous cell carcinoma), SiHa (carcinoma of uterus) cells. In SKOV1 cells, a cell line derived from ovarian carcinoma where a positive correlation between histological aggressiveness of the malignancy and hDPP III expression has previously been established, only V-II could be detected. Human DPP III V-III, which lacks an in-frame coding sequence, could not be detected in any of these cell lines. 5' untranslated region (UTR) of hDPP III V-II contains nucleotides GCA (-12 to -10 bp) upstream to the translation initiator codon (AUG). These nucleotides are absent from V-I and V-III, however, both V-I and V-II encode for the same hDPP III protein isoform-I. In vitro transcription coupled translation assay using hDPP III V-I and V-II expression vectors which contained full length V-I and V-II cDNA including the variable 5' UTR cloned under T7 promoter, respectively revealed a comparable translational efficiency for both the variants, abrogating involvement of nucleotides GCA (-12 to -10 bp) in translation of the variants. Our results, for the first time, demonstrate concurrent expression in multiple tumor derived cell lines and a comparable in vitro translational efficiency for hDPP III V-I and II.

DOI: 10.1007/s11033-016-3996-9
PMID: 27153830 [PubMed - in process]

103: Prakash S, Balhara Y. Perceptions Related to Pharmacological Treatment of Opioid Dependence Among Individuals Seeking Treatment at a Tertiary Care Center in Northern India: A Descriptive Study. *Subst Use Misuse.* 2016 Jun 6;51(7):861-9. doi: 10.3109/10826084.2016.1155615. PubMed PMID: 27100203.

BACKGROUND: Perceptions of individuals with opioid dependence regarding medications used for long-term management of the condition have been explored only by a handful of studies. Interestingly, no study had compared the perceptions regarding buprenorphine, buprenorphine-naloxone, and oral naltrexone in the opioid-dependent subjects from the same setting.

OBJECTIVES: The present study aimed to examine the perceptions related to treatment of opioid dependence with buprenorphine, buprenorphine-naloxone, and oral naltrexone among individuals seeking help at a tertiary care center.

METHODS: This was a cross-sectional, observational study with consecutive sampling. Sociodemographic data, Drug Abuse Monitoring System questionnaire, perceptions questionnaire, clinical interview to elicit drug use history, treatment history and details of prior abstinence attempts were completed.

RESULTS: Eighty-five subjects were recruited in the study. Fear of becoming dependent (35.3%) was the most common harm reported while withdrawal control (82.4%) was the most common benefit reported with buprenorphine preparations. Precipitated withdrawals (21.2%) were the most common harm reported and prevention of relapse (53%) was the most common benefit reported with oral naltrexone. While patients who believed that buprenorphine or naltrexone were harmful reported durations of treatment that were much shorter than those who did not so believe, there was no statistically significant difference in the actual duration and period of abstinence ($p = .34$; $p = .62$). Sociodemographic profile, perceptions related to dosing, nature of medication, expectations from treatment, and duration of illness were also described.

DOI: 10.3109/10826084.2016.1155615

PMID: 27100203 [PubMed - in process]

104: Prasad TV, Singh A, Das CJ, Seth A. An unusually large renal angiomyolipoma peeping into the right atrium. *BMJ Case Rep.* 2016 Jun 27;2016. pii: bcr2016215673. doi: 10.1136/bcr-2016-215673. PubMed PMID: 27352862.

Angiomyolipomas (AMLs) are benign hamartomatous tumours of the kidney that occur sporadically or in association with tuberous sclerosis. Although they are benign lesions, larger tumours can, rarely, behave aggressively and have extrarenal extension. Extension of an AML into the renal veins and inferior vena cava (IVC) is rare. We report a rare case of an AML with extension into the renal vein and IVC up to the right atrium that was successfully managed surgically.

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PMID: 27352862 [PubMed - in process]

105: Puri P, Saraswat VA, Dhiman RK, Anand AC, Acharya SK, Singh SP, Chawla YK, Amarapurkar DN, Kumar A, Arora A, Dixit VK, Koshy A, Sood A, Duseja A, Kapoor D, Madan K, Srivastava A, Kumar A, Wadhawan M, Goel A, Verma A, Shalimar, Pandey G, Malik R, Agrawal S. Indian National Association for Study of the Liver (INASL) Guidance for Antiviral Therapy Against HCV Infection: Update 2016. *J Clin Exp Hepatol.* 2016 Jun;6(2):119-45. doi: 10.1016/j.jceh.2016.07.001. Review. PubMed PMID: 27493460; PubMed Central PMCID: PMC4963318.

India contributes significantly to the global burden of HCV. While the nucleoside NS5B inhibitor sofosbuvir became available in the Indian market in March 2015, the other directly acting agents (DAAs), Ledipasvir and Daclatasvir, have only recently become available in the India. The introduction of these DAA in India at a relatively affordable price has led to great optimism about prospects of cure for these patients as not only will they provide higher efficacy, but combination DAAs as all-oral regimen will result in lower side effects than were seen with pegylated interferon alfa and ribavirin therapy. Availability of these newer DAAs has necessitated revision of INASL guidelines for the treatment of HCV published in 2015. Current considerations for the treatment of HCV in India include the poorer response of genotype 3, nonavailability of many of the DAAs recommended by other guidelines and the cost of therapy. The availability of combination DAA therapy has simplified therapy of HCV with decreased reliance of evaluation for monitoring viral kinetics or drug related side effects.

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PMCID: PMC4963318 [Available on 2017-06-01]

PMID: 27493460 [PubMed]

106: Purkait S, Agarwal S, Mathur SR, Jain D, Iyer VK. Fine needle aspiration cytology features of poorly differentiated thyroid carcinoma. *Cytopathology.* 2016 Jun;27(3):176-84. doi: 10.1111/cyt.12270. PubMed PMID: 26662642.

BACKGROUND: Poorly differentiated thyroid carcinoma (PDTC) is an uncommon thyroid malignancy with biological behaviour intermediate between well-differentiated and undifferentiated thyroid carcinoma. The cytological diagnosis of PDTC is often difficult as a result of a lack of well-established cytomorphological features and a considerable degree of morphological overlap with other commoner thyroid neoplasms.

OBJECTIVE: To review the cytomorphological features of PDTC with the aim of highlighting salient diagnostic morphological features and differential diagnostic problems.

METHODS: Seven cases of histologically proven PDTC with available aspiration cytology smears were reviewed for the presence of distinguishing

cytomorphological features.

RESULTS: The architectural arrangement of tumour cells was the most important diagnostic parameter. Cellular nests, three-dimensional clusters dyscohesive aggregates and singly dispersed cells in the background were present in all cases. A unique 'garlanded appearance', owing to the peripheral orientation of nuclei within the tumour cell clusters, was noted (71.4%) along with the presence of basement membrane-like material (71.4%). Transgressing vessels (85.7%) and endothelial wrapping of cell clusters (71.4%) were also noted. Interestingly, most cases lacked necrosis and mitotic activity that are included in the histological diagnostic criteria for PDTC.

CONCLUSION: Although PDTC has considerable cytomorphological overlap with well-differentiated thyroid tumours, this present study highlights certain cytomorphological features that may suggest the correct pre-operative diagnosis, important for the appropriate management.

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PMID: 26662642 [PubMed - in process]

107: Purohit A, Aggarwal M, Singh PK, Mahapatra M, Seth T, Tyagi S, Saxena R, Pati HP, Mishra P. Erratum to: Re-evaluation of Need for Bone Marrow Examination in Patients with Isolated Thrombocytopenia. *Indian J Hematol Blood Transfus.* 2016 Jun;32(2):197. doi: 10.1007/s12288-015-0540-3. PubMed PMID: 27074984; PubMed Central PMCID: PMC4789001.

108: Purohit A, Aggarwal M, Singh PK, Mahapatra M, Seth T, Tyagi S, Saxena R, Pati HP, Mishra P. Re-evaluation of Need for Bone Marrow Examination in Patients with Isolated Thrombocytopenia Contributors. *Indian J Hematol Blood Transfus.* 2016 Jun;32(2):193-6. doi: 10.1007/s12288-015-0533-2. Erratum in: *Indian J Hematol Blood Transfus.* 2016 Jun;32(2):197. PubMed PMID: 27065582; PubMed Central PMCID: PMC4788996.

Diagnosis of immune thrombocytopenia (ITP) is based on clinical suspicion and normal peripheral smear except for thrombocytopenia. Bone marrow examination is carried out to rule out leukemia, myelodysplastic syndrome or aplastic anemia. However, in most cases, clinical diagnosis is not altered after the bone marrow reports. Hence, this present study was carried out to evaluate the justification for bone marrow examination in the setting of isolated thrombocytopenia. All patients presenting to the hematology OPD with isolated thrombocytopenia and suspected diagnosis of ITP, between October 2011 and April 2013, were included in the study. Data was collected from bone marrow reports and outpatient records. A total of 353 cases were found. 319 cases had features of typical ITP and the rest had some form of organomegaly and/or lymphadenopathy. Bone marrow examination in all cases revealed normal hematopoietic elements and prominence of megakaryocytes including juvenile forms with no novel diagnosis in any patient. Routine use of bone marrow examination in the diagnostic workup of isolated thrombocytopenia is not required in our center even if steroids are planned as a first line therapy. However, a detailed history, thorough examination with complete hemogram and peripheral smear examination are essential.

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PMCID: PMC4788996 [Available on 2017-06-01]

PMID: 27065582 [PubMed]

109: Raghavendhar BS, Ray P, Ratagiri VH, Sharma BS, Kabra SK, Lodha R. Evaluation of chikungunya virus infection in children from India during 2009-2010: A cross sectional observational study. *J Med Virol.* 2016 Jun;88(6):923-30. doi: 10.1002/jmv.24433. PubMed PMID: 26581026.

Chikungunya virus, a small (about 60-70 nm diameter), spherical, enveloped, positive, single stranded RNA virus is transmitted by *Aedes* mosquitoes. After a short period of incubation (3-5 days) symptoms like fever with joint pains and others start appearing. After a gap of 20 years, this virus re-emerged during 2006-2008 in India causing a major outbreak of CHIKV in India. This study was conducted subsequent to the major outbreak in order to evaluate the proportion of chikungunya virus infection in children with suggestive symptoms at three geographical locations of India. Lineage of circulating strains and changes in the E1 structural polypeptide were also determined. Blood samples were collected (in Sodium citrate vacutainer tubes) during 1st June 2009 to 31st May 2010 from children (age $0 \leq 18$ years) suspected to have chikungunya infection, that is, those who presented with sudden onset of fever and/or joint pain, myalgia, and headache from three regions of India, All India Institute of Medical Sciences (AIIMS) in New Delhi, Karnataka Institute of Medical Sciences (KIMS) in Hubli and Sawai Mansingh Medical College (SMS) in Jaipur. Detection of CHIKV antibodies in all acute-phase patient plasma samples was done by IgM ELISA and for samples within ≤ 5 days of fever, a one-step RT-PCR was carried out on a block thermo-cycler targeting 294 bp region of E1 gene that codes for the viral envelope protein. Comparison of nucleotide and amino acid sequences from few positive samples of two regions was done with African S-27 reference strain using BioEdit. A phylogenetic tree was constructed using MEGA 6 by using the Maximum Likelihood method based on the Kimura 2-parameter model. Out of the 723 acute phase samples tested from three geographical locations of India, Chikungunya virus infection was detected in 249/723 (34.44%) subjects by either IgM Elisa (180/723) or RT-PCR (69/412). RT-PCR was employed in samples collected from children with ≤ 5 days of fever. Maximum positive cases were from KIMS center, Hubli. Seasonally, positivity varied with number of enrolled cases at KIMS and SMS. Joint pain was significantly associated with CHIKV positivity ($P = 0.0156$). Presence/absence of certain clinical features varied with age ($P < 0.05$). Sequence analysis revealed four amino acid changes. Phylogenetic analysis with partial sequences of E1 gene from KIMS ($n = 12$) and SMS ($n = 5$) showed that the study isolates clustered with Indian Ocean Lineage strains (IOL) of East, Central and South African (ECSA) type. Evaluation of chikungunya virus infection in children from India during 2009-2010 showed high proportion of CHIKV infection in Southern region of India compared to Northern region. The circulating CHIKV strains were of Indian Ocean Lineage (IOL) group within the East, Central, and South African (ECSA) genotype. However few amino acid changes were observed in E1 polypeptide with reference to African strain S-27 (AF369024). Further studies are needed to know the implications of these changes in vector-pathogen compatibility and host-pathogen interactivity. As a whole, this study highlighted the proportion of CHIKV cases, lineage of causative strain and evolutionary pattern of circulating strain in terms of amino acid changes in the structural protein.

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DOI: 10.1002/jmv.24433

PMID: 26581026 [PubMed - indexed for MEDLINE]

110: Ramachandran VG, Das S, Roy P, Hada V, Mogha NS. Chikungunya: a reemerging infection spreading during 2010 dengue fever outbreak in National Capital Region of India. *Virusdisease*. 2016 Jun;27(2):183-6. doi: 10.1007/s13337-016-0314-z. PubMed PMID: 27366770; PubMed Central PMCID: PMC4909001.

Chikungunya fever is an important reemerging arbovirus illness, which is transmitted by the same vector as of dengue virus. Many cases of concurrent infections with multiple dengue virus serotypes have been reported in many countries. Also, concurrent infection with Chikungunya virus and dengue virus has been reported in the past in Delhi. Therefore, this study was done to detect Chikungunya IgM antibodies in suspected dengue fever patients. In this study, 1666 serum samples suspected of dengue fever and collected during the outbreak period (August 2010-December 2010) were tested for dengue IgM antibodies, of

which 736 tested negative. Of the 736 dengue IgM negative sera, 666 were tested for Chikungunya IgM antibodies. The demographic profile and essential laboratory investigations were recorded. Chikungunya IgM was detected in 9.91 % of the patients. During the post-monsoon period though dengue dominated in numbers, the number of Chikungunya fever cases increased gradually followed by an abrupt decrease with the onset of winter. The Chikungunya IgM positive patients were suffering from fever of more than 5 days duration and had thrombocytopenia. Due to similarity in clinical features and vector transmitting dengue and Chikungunya virus, continuous surveillance of both dengue fever and Chikungunya fever is desirable for better management and epidemiological assessment.

DOI: 10.1007/s13337-016-0314-z

PMCID: PMC4909001 [Available on 2017-06-01]

PMID: 27366770 [PubMed]

111: Rana SS, Kharbanda OP. Letter to editor on "Efficiency of bimaxillary advancement surgery in increasing the volume of the upper airways: a systematic review of observational studies and meta-analysis". *Eur Arch Otorhinolaryngol*. 2016 Jun 3. [Epub ahead of print] PubMed PMID: 27260165.

112: Ranganath P, Matta D, Bhavani GS, Wangnekar S, Jain JM, Verma IC, Kabra M, Puri RD, Danda S, Gupta N, Girisha KM, Sankar VH, Patil SJ, Ramadevi AR, Bhat M, Gowrishankar K, Mandal K, Aggarwal S, Tamhankar PM, Tilak P, Phadke SR, Dalal A. Spectrum of SMPD1 mutations in Asian-Indian patients with acid sphingomyelinase (ASM)-deficient Niemann-Pick disease. *Am J Med Genet A*. 2016 Oct;170(10):2719-30. doi: 10.1002/ajmg.a.37817. PubMed PMID: 27338287.

Acid sphingomyelinase (ASM)-deficient Niemann-Pick disease is an autosomal recessive lysosomal storage disorder caused by biallelic mutations in the SMPD1 gene. To date, around 185 mutations have been reported in patients with ASM-deficient NPD world-wide, but the mutation spectrum of this disease in India has not yet been reported. The aim of this study was to ascertain the mutation profile in Indian patients with ASM-deficient NPD. We sequenced SMPD1 in 60 unrelated families affected with ASM-deficient NPD. A total of 45 distinct pathogenic sequence variants were found, of which 14 were known and 31 were novel. The variants included 30 missense, 4 nonsense, and 9 frameshift (7 single base deletions and 2 single base insertions) mutations, 1 indel, and 1 intronic duplication. The pathogenicity of the novel mutations was inferred with the help of the mutation prediction software MutationTaster, SIFT, Polyphen-2, PROVEAN, and HANSA. The effects of the identified sequence variants on the protein structure were studied using the structure modeled with the help of the SWISS-MODEL workspace program. The p. (Arg542*) (c.1624C>T) mutation was the most commonly identified mutation, found in 22% (26 out of 120) of the alleles tested, but haplotype analysis for this mutation did not identify a founder effect for the Indian population. To the best of our knowledge, this is the largest study on mutation analysis of patients with ASM-deficient Niemann-Pick disease reported in literature and also the first study on the SMPD1 gene mutation spectrum in India. © 2016 Wiley Periodicals, Inc.

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DOI: 10.1002/ajmg.a.37817

PMID: 27338287 [PubMed - in process]

113: Ranjan A, Dhua AK, Maddur S, Kandasamy D, Kashyap L. Thoracoscopic removal of an intrapulmonary foreign body in a child. *Asian J Endosc Surg*. 2016 Aug;9(3):215-7. doi: 10.1111/ases.12274. PubMed PMID: 27255976.

A 9-year-old boy presented to our institution 6 months after falling on a needle

that pierced his left chest wall. He presented to us after multiple unsuccessful attempts to have this foreign body removed at other hospitals. A thoracoscopic removal was successfully undertaken aided by fluoroscopy. This report shows how the needle's position and location were precisely defined by fluoroscopy, despite the needle being invisible on thoracoscopy.

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DOI: 10.1111/ases.12274

PMID: 27255976 [PubMed - in process]

114: Ranjan P, Kumar V, Ganguly S, Sukumar M, Sharma S, Singh N, Vikram NK, Pati HP, Sood R. Hemophagocytic Lymphohistiocytosis Associated with Visceral Leishmaniasis: Varied Presentation. Indian J Hematol Blood Transfus. 2016 Jun;32(Suppl 1):351-4. doi: 10.1007/s12288-015-0541-2. PubMed PMID: 27408434; PubMed Central PMCID: PMC4925504.

Visceral leishmaniasis (VL) is endemic in many parts of India. Rarely, it may be complicated by hemophagocytic lymphohistiocytosis (HLH) that has varied presentation and course. We describe two cases of VL complicated by HLH that were markedly different in clinical presentation, course and management. First case presented with Fever of unknown origin whereas second case had fever with severe bleeding manifestations. VL was diagnosed by bone marrow aspiration and serum rk39 immunodiagnostic test respectively in these cases. HLH was diagnosed by HLH 2004 diagnostic criteria. VL was treated by intravenous amphotericin B in both cases. HLH was managed by treating primary disease in the first case whereas steroid was given for management in the second case. High index of suspicion is crucial for early diagnosis of HLH to reduce morbidity and mortality.

DOI: 10.1007/s12288-015-0541-2

PMCID: PMC4925504 [Available on 2017-06-01]

PMID: 27408434 [PubMed]

115: Rodriguez-Luna D, Coscojuela P, Rubiera M, Hill MD, Dowlatshahi D, Aviv RI, Silva Y, Dzialowski I, Lum C, Czlonkowska A, Boulanger JM, Kase CS, Gubitza G, Bhatia R, Padma V, Roy J, Tomasello A, Demchuk AM, Molina CA; PREDICT/Sunnybrook ICH CTA Study Group.. Ultraearly hematoma growth in active intracerebral hemorrhage. Neurology. 2016 Jul 26;87(4):357-64. doi: 10.1212/WNL.0000000000002897. PubMed PMID: 27343067; PubMed Central PMCID: PMC4977111.

OBJECTIVE: To determine the association of ultraearly hematoma growth (uHG) with the CT angiography (CTA) spot sign, hematoma expansion, and clinical outcomes in patients with acute intracerebral hemorrhage (ICH).

METHODS: We analyzed data from 231 patients enrolled in the multicenter Predicting Haematoma Growth and Outcome in Intracerebral Haemorrhage Using Contrast Bolus CT study. uHG was defined as baseline ICH volume/onset-to-CT time (mL/h). The spot sign was used as marker of active hemorrhage. Outcome parameters included significant hematoma expansion (>33% or >6 mL, primary outcome), rate of hematoma expansion, early neurologic deterioration, 90-day mortality, and poor outcome.

RESULTS: uHG was higher in spot sign patients ($p < 0.001$) and in patients scanned earlier ($p < 0.001$). Both uHG >4.7 mL/h ($p = 0.002$) and the CTA spot sign ($p = 0.030$) showed effects on rate of hematoma expansion but not its interaction (2-way analysis of variance, $p = 0.477$). uHG >4.7 mL/h improved the sensitivity of the spot sign in the prediction of significant hematoma expansion (73.9% vs 46.4%), early neurologic deterioration (67.6% vs 35.3%), 90-day mortality (81.6% vs 44.9%), and poor outcome (72.8% vs 29.8%), respectively. uHG was independently related to significant hematoma expansion (odds ratio 1.06, 95% confidence

interval 1.03-1.10) and clinical outcomes.

CONCLUSIONS: uHG is a useful predictor of hematoma expansion and poor clinical outcomes in patients with acute ICH. The combination of high uHG and the spot sign is associated with a higher rate of hematoma expansion, highlighting the need for very fast treatment in ICH patients.

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DOI: 10.1212/WNL.0000000000002897

PMCID: PMC4977111 [Available on 2017-07-26]

PMID: 27343067 [PubMed - in process]

116: Roy N, Gerdin M, Ghosh S, Gupta A, Kumar V, Khajanchi M, Schneider EB, Gruen R, Tomson G, von Schreeb J. 30-Day In-hospital Trauma Mortality in Four Urban University Hospitals Using an Indian Trauma Registry. *World J Surg.* 2016 Jun;40(6):1299-307. doi: 10.1007/s00268-016-3452-y. PubMed PMID: 26911610.

INTRODUCTION: In India, half of the annual 200,000 road traffic deaths occur in hospitals, but the exact in-hospital trauma mortality rate remains unknown. A research consortium of universities, with a mandate to reduce trauma mortality, measured the baseline 30-day in-hospital mortality rate.

METHODS: Between September 2013 and February 2015, trained data collectors collected on-admission demographic, physiological vital signs, and health service performance indicators (time of injury to admission, investigation, or intervention) on all patients with traumatic injuries admitted to four public university hospitals in three Indian megacities.

RESULTS: Of the 11,202 hospitalized trauma patients, 21.4 % died within 30 days of hospitalization. The median age was 30 years for survivors and 37 years for non-survivors. The on-admission systolic blood pressure and Glasgow Coma Score was near-normal in survivors, but was significantly lower in non-survivors and associated with both early and late mortality ($p = 0.001$). In the absence of a trauma system, there were process-of-care delays from injury to reaching and being examined, investigated, or operated in the hospital.

CONCLUSION: Using a multi-institutional Indian registry, this study is the first to systematically document that the 30-day in-hospital trauma mortality was twice that found in similar registries from high-income countries. Physiological scoring of on-admission vitals was clinically useful to predict mortality. More research is needed to understand the causes of high mortality and time delays in the process of delivering trauma care in India, which has no prehospital or trauma system.

DOI: 10.1007/s00268-016-3452-y

PMID: 26911610 [PubMed - in process]

117: Roy S, Pathy S, Mohanti BK, Raina V, Jaiswal A, Kumar R, Kalaiivani M. Accelerated hypofractionated radiotherapy with concomitant chemotherapy in locally advanced squamous cell carcinoma of lung: evaluation of response, survival, toxicity and quality of life from a Phase II randomized study. *Br J Radiol.* 2016 Jun;89(1062):20150966. doi: 10.1259/bjr.20150966. PubMed PMID: 26986459.

OBJECTIVE: To evaluate the feasibility and efficacy of accelerated hypofractionated radiation with concomitant chemotherapy (AHFx-RT-CT) in locally advanced squamous cell carcinoma (SCC) of the lung.

METHODS: 36 patients were enrolled in this study (CTRI/2013/11/004143). Patients in Arm A (n=18) received neoadjuvant chemotherapy (NACT) (paclitaxel 200mgm(-2) and carboplatin area under the curve 5) followed by external radiotherapy (60Gy/30 fractions/6 weeks). Patients in Arm B (n=18) received NACT as in Arm A followed by AHFx-RT (48Gy/20 fractions/4 weeks) with concomitant chemotherapy (cisplatin 30mgm(-2) weekly). Primary end points

included comparative evaluation of overall locoregional response rates (ORRs) and progression-free survival (PFS). Secondary end points included toxicity, quality of life (QOL) and overall survival (OS).

RESULTS: The median follow-up duration was 15 months. The ORR at first follow-up (72.2% vs 44%, $p=0.06$) and at 1 year after treatment completion (61% vs 5.5%, $p=0.04$) were superior in Arm B. The median PFS (17 vs 5.36 months; $p=0.053$) and OS (24.73 vs 12.33 months; $p=0.007$) were also superior in Arm B. Grade ≥ 3 acute pharyngitis/oesophagitis was less in Arm B ($p=0.05$). Improvement of emotional function, cognitive function and chest pain was observed in Arm B. CONCLUSION: The study suggests that AHFx-RT-CT is feasible for locally advanced SCC of the lung with improved response rate, survival, QOL and favourable toxicity.

ADVANCES IN KNOWLEDGE: To the best of our knowledge, this is the first study comparing conventionally fractionated radiation with AHFx-RT-CT. Addition of low-dose weekly cisplatin as radiosensitizer may be the potential factor responsible for improved response rate, survival and favourable toxicity in the study arm despite lower biological effective dose.

DOI: 10.1259/bjr.20150966

PMID: 26986459 [PubMed - in process]

118: Saxena A. Task shifting rheumatic heart disease screening to non-experts. *Lancet Glob Health*. 2016 Jun;4(6):e349-50. doi: 10.1016/S2214-109X(16)30077-8. PubMed PMID: 27198828.

119: Shah SK, Kabra SK, Gupta N, Pai G, Lodha R. Vitamin D Deficiency and Parathyroid Response in Critically-ill Children: Association with Illness Severity and Clinical Outcomes. *Indian Pediatr*. 2016 Jun 8;53(6):479-84. PubMed PMID: 27376601.

OBJECTIVE: To determine the prevalence of vitamin D deficiency in critically ill children, and to study its association with parathyroid response, severity of illness and clinical outcomes.

DESIGN: Prospective observational study.

SETTING: Medical Pediatric Intensive Care Unit of a tertiary care centre of Northern India.

PARTICIPANTS: 154 children in-patients: August 2011-January 2013.

MAIN OUTCOME MEASURES: Vitamin D deficient children were (serum 25-hydroxy vitamin D <20 ug/mL) divided into parathyroid-responder [serum parathyroid hormone >65 pg/mL with 25(OH)D <20 ug/mL and/or calcium corrected for albumin <8.5 mg/dL] and non parathyroid-responder. Illness severity was assessed by Pediatric Index of Mortality-2 (PIM-2) score at admission. Biochemical parameters, illness severity scores and clinical outcomes were compared between parathyroid-responders and non-parathyroid-responders.

RESULTS: Vitamin D deficiency and hypocalcemia were observed in 125 (83.1%) and 91 (59%) children, respectively at admission. There were no differences in illness severity score at admission, mortality rate and length of stay between vitamin D-deficient children and 19.8% of non-vitamin D-deficient children. Among Vitamin D-deficient children, parathyroid-responders had higher PIM-2 score at admission compared to non-parathyroid-responder [12.8 (7.4,20.6) vs. 6.5 (2.5,12.2), $P=0.01$]. However, there were no differences in other clinical outcomes between two groups.

CONCLUSION: Critically ill children have high prevalence of vitamin D deficiency. Parathyroid gland response secondary to hypocalcemia or vitamin D deficiency is impaired in critical illness.

PMID: 27376601 [PubMed - in process]

120: Shalimar, Kumar A, Kedia S, Sharma H, Gamanagatti SR, Gulati GS, Nayak B, Thakur B, Acharya SK. Hepatic venous outflow tract obstruction: treatment outcomes and development of a new prognostic score. *Aliment Pharmacol Ther.* 2016 Jun;43(11):1154-67. doi: 10.1111/apt.13604. PubMed PMID: 27060876.

BACKGROUND: Results of endovascular interventions in hepatic venous outflow tract obstruction (HVOTO) have been reported from limited studies. Treatment outcomes and prognostic scores need further validation.

AIM: To evaluate treatment outcomes and prognostic scores for hepatic venous outflow tract obstruction in an Indian population.

METHODS: Consecutive patients with hepatic venous outflow tract obstruction diagnosed at a tertiary centre were included. Technical success and clinical response after endovascular interventional therapy were documented. Predictors of survival were assessed with Cox-proportional model. A new score was derived from the factors significant on multivariate analysis and compared with Child-Turcotte-Pugh, model for end-stage liver disease (MELD), Rotterdam prognostic index (PI) and Budd-Chiari syndrome-transjugular intrahepatic portosystemic shunt (BCS-TIPSS) PI.

RESULTS: Three hundred and thirty-four patients (56.6% males), median age 24 (3-62) years were included. Hepatic vein was the commonest site of block-isolated hepatic venous block in 48%, combined hepatic venous-inferior vena cava block in 46%. Endovascular interventional therapy was performed in 233/334 (70%) with 90% technical success. Clinical response was complete in 166 (71.2%), partial in 58 (24.9%) and no response in nine (3.9%). Majority of cases with HV block did not require TIPSS and could be treated with angioplasty (with/without stenting). On Cox-proportional multivariate analysis, Child class C and response to intervention were independent predictors of outcome and used to derive the All India Institute of Medical Sciences (AIIMS) hepatic venous outflow tract obstruction score. The 5-year survival was 92% (95% CI, 81-97%) for score ≤ 3 , 79% (95%CI, 63-88%) for score >3 and ≤ 4 , and 39% (95% CI, 21-57%) for score >4 . The performance of AIIMS hepatic venous outflow obstruction score was superior to other prognostic indices.

CONCLUSIONS: Advanced Child class and no response to intervention are associated with poor outcomes. The All India Institute of Medical Sciences hepatic venous outflow tract obstruction score predicts survival better than other prognostic scores.

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DOI: 10.1111/apt.13604

PMID: 27060876 [PubMed - in process]

121: Sharma A, Malhi AS, Kumar S, Ma'aji SM. Symptomatic anomalous vascular ring with right aortic arch. *BMJ Case Rep.* 2016 Jun 10;2016. pii: bcr2016216265. doi: 10.1136/bcr-2016-216265. PubMed PMID: 27288207.

122: Sharma A, Kumar S, Priya S. Ruptured aneurysm of major aortopulmonary collateral artery: management using amplatzer vascular plug. *Cardiovasc Diagn Ther.* 2016 Jun;6(3):274-7. doi: 10.21037/cdt.2016.01.02. PubMed PMID: 27280092; PubMed Central PMCID: PMC4880756.

Aneurysm of a major aortopulmonary collateral artery (MAPCA) is quite rare. Aneurysmally dilated MAPCA may be complicated with rupture and massive hemoptysis leading to sudden death. Possible pathophysiology for aneurysm formation is persistent high pressure state in collateral circulation. High index of suspicion is necessary to avoid catastrophic complications as the amount of hemoptysis does not correlate with disease severity and etiology. We present a case of large ruptured aneurysm of a MAPCA presenting with massive haemoptysis in a patient of cyanotic congenital heart disease which was salvaged by endovascular deployment of vascular plug.

DOI: 10.21037/cdt.2016.01.02
PMCID: PMC4880756
PMID: 27280092 [PubMed]

123: Sharma A, Priya S, Jagia P. Persistent truncus arteriosus on dual source CT. *Jpn J Radiol*. 2016 Jul;34(7):486-93. doi: 10.1007/s11604-016-0559-x. PubMed PMID: 27262857.

Persistent truncus arteriosus is a rare congenital cardiac disease with variable presentation. The exact preoperative diagnosis and delineation of anatomy are very important because the optimal timing and procedure for truncus arteriosus repair are decided on the basis of the morphological characteristics. Moreover, the presence of associated anomalies influences the surgical outcome and mortality in these patients. Dual-source computed tomographic evaluation with three-dimensional post-processing is highly valuable for delineating its precise morphology and to identify and characterize the associated anomalies. Also depiction of the precise aortic arch morphology and simultaneous evaluation of the airway are very useful in treatment planning. This pictorial review provides an overview of the imaging spectrum of truncus arteriosus and various associated anomalies as seen on dual-source computed tomography.

DOI: 10.1007/s11604-016-0559-x
PMID: 27262857 [PubMed - in process]

124: Sharma JB, Singh N, Dharmendra S, Singh UB, P V, Kumar S, Roy KK, Hari S, Iyer V, Sharma SK. Six months versus nine months anti-tuberculous therapy for female genital tuberculosis: a randomized controlled trial. *Eur J Obstet Gynecol Reprod Biol*. 2016 Aug;203:264-73. doi: 10.1016/j.ejogrb.2016.05.035. PubMed PMID: 27391900.

OBJECTIVE: To compare six months versus nine months anti-tuberculous therapy in patients of female genital tuberculosis.
STUDY DESIGN: It was a randomized controlled trial in a tertiary referral center teaching institute on 175 women presenting with infertility and found to have female genital tuberculosis on clinical examination and investigations. Group I women (86 women) were given 9 months of intermitted anti-tuberculous therapy under directly observed treatment short course (DOTS) strategy while Group II (89 women) were given 6 months of anti-tuberculous therapy under DOTS. Patients were evaluated for primary end points (complete cure, partial response, no response) and secondary end points (recurrence rate, pregnancy rate) during treatment. All patients were followed up further for one year after completion of therapy to assess recurrence of disease and further pregnancies.
RESULTS: Baseline characteristics were similar between two randomized groups. There was no difference in the complete clinical response rate (95.3% vs 97.7%, $p=0.441$) between 9-months and 6-months groups. Four patients in 9-months group and two patients in 6-months group had recurrence of disease and required category II anti tuberculous therapy ($p=0.441$). Pregnancy rate during treatment and up to one year follow up was also similar in the two groups (23.2% vs 21.3%, $p=0.762$). Side effects occurred in 27 (31.4%) and 29 (32.6%) in 9-months and 6-months of therapy and were similar ($p=0.866$).
CONCLUSIONS: There was no difference in complete cure rate, recurrent rate and pregnancy rate for either 6-months or 9-months of intermittent directly observed treatment short course anti-tuberculous therapy in female genital tuberculosis.
CLINICAL TRIAL REGISTRATION: The trial was registered in clinicaltrials.gov with registration no: CTRI/2009/091/001088.
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DOI: 10.1016/j.ejogrb.2016.05.035
PMID: 27391900 [PubMed - in process]

125: Sharma M, Sundar D, Vanathi M, Meel R, Kashyap S, Chawla R, Tandon R. Invasive Ocular Surface Squamous Neoplasia Masquerading as Nodular Scleritis. *Ophthalm Plast Reconstr Surg*. 2016 Jun 2. [Epub ahead of print] PubMed PMID: 27262144.

The authors report a rare case of ocular surface squamous neoplasia with intraocular involvement that had an initial masquerade presentation of recurrent anterior nodular scleritis. A 35-year-old male patient presented with right eye recurrent anterior nodular scleritis for which a lamellar patch graft was done. Two months later, the patient presented with recurrence of symptoms. Histopathology review revealed the presence of well-differentiated squamous cell malignancy. A high index of suspicion for malignancy is required in such cases when they do not respond to conventional therapy.

DOI: 10.1097/IOP.0000000000000720

PMID: 27262144 [PubMed - as supplied by publisher]

126: Sharma P, Gupta N, Chowdhury MR, Sapra S, Ghosh M, Gulati S, Kabra M. Application of chromosomal microarrays in the evaluation of intellectual disability/global developmental delay patients - A study from a tertiary care genetic centre in India. *Gene*. 2016 Sep 15;590(1):109-19. doi: 10.1016/j.gene.2016.06.020. PubMed PMID: 27291820.

Intellectual disability (ID)/Global developmental delay (GDD) is a diverse group of disorders in terms of cognitive and non-cognitive functions and can occur with or without associated co-morbidities. It affects 1-3% of individuals globally and in at least 30-50% of cases the etiology remains unexplained. The widespread use of chromosomal microarray analysis (CMA) in a clinical setting has allowed the identification of submicroscopic copy number variations (CNVs), throughout the genome, associated with neurodevelopmental phenotypes including ID/GDD. In this study we investigated the utility of CMA in the detection of CNVs in 106 patients with unexplained ID/DD, dysmorphism with or without multiple congenital anomalies (MCA). CMA study was carried out using Agilent 8x60K chips and Illumina Human CytoSNP-12 chips. Pathogenic CNVs were found in 15 (14.2%) patients. In these patients, CNVs on single chromosome were detected in 10 patients while 5 patients showed co-occurrence CNVs on two chromosomes. The size of these CNVs ranged between 322kb to 13Mb. The yield of pathogenic CNVs was similar for both mild and severe ID/GDD cases. One patient described in this paper is considered to harbour a likely pathogenic CNV with deletion in 17q22 region. Only few cases have been described in literature for 17q22 deletion and patient reported here was found to have an atypical deletion in 17q22 region (Case 90). This study re-affirms the view point that CMA is a powerful diagnostic tool in the evaluation of idiopathic ID/GDD patients irrespective of the degree of severity. Identifying pathogenic CNVs helps in counseling and prenatal diagnosis if desired.

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DOI: 10.1016/j.gene.2016.06.020

PMID: 27291820 [PubMed - in process]

127: Sharma P, Sagar R, Patra B, Saini L, Gulati S, Chakrabarty B. Psychotic symptoms in anti-N-methyl-d-aspartate (NMDA) receptor encephalitis: A case report and challenges. *Asian J Psychiatr*. 2016 Aug;22:135-7. doi: 10.1016/j.ajp.2016.06.010. PubMed PMID: 27520914.

Anti-N-methyl-d-aspartate (NMDA) receptor encephalitis, only recently first described, is an increasingly well-recognized inflammatory encephalitis that is seen in children and adults. An 11-year old girl admitted to the psychiatry ward with a presentation of acute psychosis was diagnosed with NMDA receptor

encephalitis following neurology referral and was treated accordingly. This case highlights psychiatric manifestations in encephalitis and the need for the psychiatrist to have high index of suspicion when atypical symptoms (e.g., dyskinesia, seizure, fever etc.) present in acutely psychotic patients.

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DOI: 10.1016/j.ajp.2016.06.010

PMID: 27520914 [PubMed - in process]

128: Sharma SK, Gupta A, Biswas A, Sharma A, Malhotra A, Prasad KT, Vishnubhatla S, Ajmani S, Mishra H, Soneja M, Broor S. Aetiology, outcomes & predictors of mortality in acute respiratory distress syndrome from a tertiary care centre in north India. *Indian J Med Res.* 2016 Jun;143(6):782-792. doi: 10.4103/0971-5916.192063. PubMed PMID: 27748303.

BACKGROUND & OBJECTIVES: Acute respiratory distress syndrome (ARDS) is a common disorder in critically ill patients and is associated with high mortality. There is a paucity of literature on this condition from developing countries. This prospective observational study was designed to find out the aetiology, outcomes and predictors of mortality in ARDS.

METHODS: Sixty four consecutive patients who satisfied American-European Consensus Conference (AECC) definition of ARDS from medical Intensive Care Unit (ICU) of a tertiary care centre in New Delhi, India, were enrolled in the study. Demographic, biochemical and ventilatory variables were recorded for each patient. Baseline measurements of serum interleukin (IL)-1 β , IL-6, tumour necrosis factor-alpha (TNF- α), procalcitonin (PCT) and high sensitivity C-reactive protein (hsCRP) were performed.

RESULTS: Common causes of ARDS included pneumonia [44/64 (68.7%)], malaria [9/64 (14.1%)] and sepsis [8/64 (12.5%)]. Eight of the 64 (12.5%) patients had ARDS due to viral pneumonia. The 28-day mortality was 36/64 (56.2%). Independent predictors of mortality included non-pulmonary organ failure, [Hazard ratio (HR) 7.65; 95% CI 0.98-59.7, P=0.05], Simplified Acute Physiology Score (SAPS-II) [HR 2.36; 95% CI 1.14-4.85, P=0.02] and peak pressure (P peak) [HR 1.13; 95% CI 1.00-1.30, P = 0.04] at admission.

INTERPRETATION & CONCLUSIONS: Bacterial and viral pneumonia, malaria and tuberculosis resulted in ARDS in a considerable number of patients. Independent predictors of mortality included non-pulmonary organ failure, SAPS II score and P peak at baseline. Elevated levels of biomarkers such as TNF- α , PCT and hsCRP at admission might help in identifying patients at a higher risk of mortality.

DOI: 10.4103/0971-5916.192063

PMID: 27748303 [PubMed - in process]

129: Sharma VK, Bhari N, Wadhvani AR, Bhatia R. Photo-patch and patch tests in patients with dermatitis over the photo-exposed areas: A study of 101 cases from a tertiary care centre in India. *Australas J Dermatol.* 2016 Jun 10. doi: 10.1111/ajd.12504. [Epub ahead of print] PubMed PMID: 27282531.

BACKGROUND: Many patients with dermatitis over photo-exposed body areas are positive to many contact allergens and have a pre-existing allergic contact dermatitis.

METHODS: This study included patients who presented to a tertiary centre in India with dermatitis on photo-exposed body areas suspected of chronic actinic dermatitis. Their detailed histories were recorded and cutaneous and systemic examinations were performed. Patch testing was done in all the patients and photo-patch testing was carried out in 86 patients.

RESULTS: Altogether 101 patients were included (69 males, 32 females). The most common presentation was lichenified hyperpigmented plaques on the photo-exposed sites. Photosensitivity was recorded in 64 (63%) patients and summer exacerbation

in 52 (52%). Exposure to the Parthenium hysterophorus weed was recorded in 70 (69%) patients, 27 (26.7%) had a history of hair dye application and 20 (20%) had a history of atopy. Photo-patch test was positive in 11 (12.8%) patients and patch testing was positive in 71 (70%). Parthenium hysterophorus was the most common allergen implicated and was positive in three (4%) photo-patch and 52 (52%) patch tests. Other positive photo-patch test allergens were perfume mix, balsam of Peru, thiuram mix, Compositae mix and promethazine hydrochloride. Other common patch test allergens were parthenolide, colophony, fragrance mix and p-phenylenediamine (PPD) base.

CONCLUSION: In the Indian population parthenium and perfume mix are the most common photoallergens in patients with dermatitis over photo-exposed areas, while parthenium, colophony, fragrance mix and PPD are the common positive allergens.

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DOI: 10.1111/ajd.12504

PMID: 27282531 [PubMed - as supplied by publisher]

130: Shaw LJ, Xie JX, Phillips LM, Goyal A, Reynolds HR, Berman DS, Picard MH, Bhargava B, Devlin G, Chaitman BR. Optimising diagnostic accuracy with the exercise ECG: opportunities for women and men with stable ischaemic heart disease. Heart Asia. 2016 Jun 1;8(2):1-7. doi: 10.1136/heartasia-2016-010736. Review. PubMed PMID: 27326241; PubMed Central PMCID: PMC4910812.

The exercise ECG is an integral part within the evaluation algorithm for diagnosis and risk stratification of patients with stable ischaemic heart disease (SIHD). There is evidence, both older and new, that the exercise ECG can be an effective and cost-efficient option for patients capable of performing at maximal levels of exercise with suitable resting ECG findings. In this review, we will highlight the major dilemmas in interpreting suspected coronary artery disease symptoms in women and identify optimal strategies for employing exercise ECG as a first-line diagnostic test in the SIHD evaluation algorithm. We will highlight current evidence as well as recent guideline statements on this subject. TRIAL REGISTRATION NUMBER: NCT01471522; Pre-results.

DOI: 10.1136/heartasia-2016-010736

PMCID: PMC4910812

PMID: 27326241 [PubMed]

131: Siddiqui SM, Sagar S, Misra MC, Gupta A, Crandall M, Swaroop M. Patterns of injury among motorized two-wheeler pillion riders in New Delhi, India. J Surg Res. 2016 Sep;205(1):142-6. doi: 10.1016/j.jss.2016.06.033. PubMed PMID: 27621011.

BACKGROUND: Motorized two-wheelers (MTWs) such as scooters and motorcycles place drivers and passengers at significant risk of injury and death in the event of a road traffic accident. In India, where road traffic is poorly regulated and consists of vehicles ranging from semitrucks to animal carts, the MTW pillion rider (backseat passenger) is particularly vulnerable. Annually, approximately 140,000 Indians are injured or killed in MTW road traffic accidents. In 2011, the city of New Delhi renewed a mandatory helmet use exemption for its 8 million women. We sought to identify the patterns of injury among MTW pillion riders in the city of New Delhi, including differences between helmeted and unhelmeted male and female pillion riders.

METHODS: All records of incoming trauma patients to the Jai Prakash Narayan Apex Trauma Center, New Delhi, were reviewed for the 23-mo period from April 1, 2009 until March 1, 2011. More than 3000 charts were reviewed selecting for patients who were MTW pillion riders involved in road traffic accidents. Data including Glasgow Coma Scale score, number of surgical procedures performed, length of stay, and demographic information were collected from charts that met the

criteria. Fisher's exact test was used for categorical variables and Kruskal-Wallis test for continuous variables.

RESULTS: A total of 466 charts of MTW pillions in road traffic accidents were identified with 108 helmeted males, 161 unhelmeted males, three helmeted females, and 194 unhelmeted females. Females, both unhelmeted and helmeted, were more likely to have head and neck injury than unhelmeted males or helmeted males (66.0% and 66.7% versus 53.4% and 27.8%, $P < 0.001$). Unhelmeted females were most likely to suffer inhospital mortality (17.6%, $P = 0.008$) and require intensive care unit admission (40.0%, $P = 0.004$). Unhelmeted pillions, both male and female, had significantly lower Glasgow Coma Scale scores than helmeted pillions (12.6 and 12.8 versus 13.8 and 15, $P = 0.04$).

CONCLUSIONS: Female pillions are more likely to have head and neck injury than male pillions, and unhelmeted pillions are more likely to have injuries resulting in their death. This firmly establishes the protective benefit of helmet use for pillions. Encouraging helmet use among all pillions may prevent a significant number of injuries and deaths, and mandatory helmet laws may decrease morbidity and mortality of MTW road traffic accidents for the women of New Delhi and all of India.

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PMID: 27621011 [PubMed - in process]

132: Sihota R, Rishi K, Srinivasan G, Gupta V, Dada T, Singh K. Functional evaluation of an iridotomy in primary angle closure eyes. Graefes Arch Clin Exp Ophthalmol. 2016 Jun;254(6):1141-9. doi: 10.1007/s00417-016-3298-x. PubMed PMID: 26895159.

OBJECTIVE: To evaluate the functional efficacy of an iridotomy in primary angle closure (PAC) eyes by measuring IOP responses to provocative tests before and after iridotomy.

DESIGN: Prospective cohort study.

SUBJECTS: 50 consecutive adult patients, 40-60 years of age, having primary angle closure.

METHODS: Clinical examination, perimetry, biometry and ultrasound biomicroscopy of the angle were done. A darkroom prone provocative test (DRPPT), a mydriatic test and a Valsalva maneuver were performed before and after the iridotomy.

MAIN OUTCOME MEASURES: IOP change in response to the provocative tests before and after iridotomy, and correlation with baseline parameters.

RESULTS: IOP at baseline and after iridotomy was 14.4 ± 2.7 mmHg and 14.3 ± 2.6 mmHg, respectively ($p=0.$)83. There was no significant change on diurnal phasing before and after an iridotomy ($p=0.$)11. The mean IOP rise was 5.9 ± 3.7 mmHg on the DRPPT, 4.3 ± 3.5 mmHg on the Mydriatic test and 9.1 ± 4.9 mmHg on the Valsalva maneuver, and was reduced significantly to 3.2 ± 2.1 mmHg, 2.3 ± 1.8 and 6.4 ± 3.5 , respectively ($p < 0.001$ for all tests). The decrease in pupillary block component for all 50 eyes was 46.5 % for the mydriatic test, 45.8 % for the DRPPT and 29.7 % for the Valsalva maneuver. PAC eyes positive on the DRPPT and mydriatic test prior to an iridotomy became negative after laser iridotomy in 75.9 and 84.6 % eyes, respectively, but on the Valsalva maneuver, only 23.8 % became negative. After iridotomy, eyes that continued to be positive on the mydriatic test had a significantly thicker lens ($p=0.02$), decreased TCPD ($p=0.014$) and narrower trabecular-iris angle ($p=0.048$). On the DRPPT, they had a thicker lens ($p=0.03$), shorter iris thickness ($p=0.025$) and TCPD ($p=0.032$), and on the Valsalva maneuver, they had a narrower scleral-ciliary process angle (SCPA; $p=0.019$) and shorter TCPD ($p=0.015$).

CONCLUSIONS: This comprehensive functional evaluation of laser iridotomy in early PAC eyes showed a significant reduction in the pupillary block component of IOP

response to provocative testing, possibly decreasing IOP fluctuations over time. An iridotomy does not, however, significantly change mean IOP or diurnal phasing of IOP in PAC eyes. Eyes with a very narrow angle or a thick lens may continue to have angle closure due to other pathomechanisms for angle closure.

DOI: 10.1007/s00417-016-3298-x
PMID: 26895159 [PubMed - in process]

133: Singh P, Arora S, Singh A, Strand TA, Makharia GK. Prevalence of celiac disease in Asia: A systematic review and meta-analysis. *J Gastroenterol Hepatol.* 2016 Jun;31(6):1095-101. doi: 10.1111/jgh.13270. PubMed PMID: 26678020.

BACKGROUND AND AIM: Celiac disease (CD) is emerging in Asia. While a few population-based studies from Asia have reported a prevalence of CD from 0.1% to 1.3%, the exact prevalence of CD in Asia is not known. We conducted a systematic review and meta-analysis to estimate the prevalence of CD in Asia.

METHODS: On search of literature, we found 1213 articles, of which 18 articles were included. Diagnosis of CD was based on European Society of Pediatric Gastroenterology, Hepatology and Nutrition guidelines.

RESULTS: Pooled sero-prevalence of CD in Asia was 1.6% in 47873 individuals based on positive anti-tissue transglutaminase and/or anti-endomysial antibodies. Pooled prevalence of biopsy proven CD in Asia was 0.5% in 43955 individuals. The prevalence of CD among women was higher than in men (0.5% vs 0.4%, $P=0.04$). The pooled prevalence of CD was 0.3% in Iran, 0.5% in Turkey, 0.6% in India, and 0.7% in Israel. The pooled prevalence of CD was significantly higher in Israel and India as compared with that in Iran.

CONCLUSIONS: Celiac disease is not uncommon in Asia, and the sero-prevalence and prevalence of CD in Asia are 1.6% and 0.5%, respectively. The prevalence of CD varies with gender and geographic location. There is a need for population-based prevalence studies in many Asian countries to properly estimate the burden of CD in Asia.

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DOI: 10.1111/jgh.13270
PMID: 26678020 [PubMed - in process]

134: Singh PM, Borle A, Gouda D, Makkar JK, Arora MK, Trikha A, Sinha A, Goudra B. Efficacy of palonosetron in postoperative nausea and vomiting (PONV)-a meta-analysis. *J Clin Anesth.* 2016 Nov;34:459-82. doi: 10.1016/j.jclinane.2016.05.018. Review. PubMed PMID: 27687434.

INTRODUCTION: Palonosetron is a second-generation 5-HT₃ receptor antagonist with proposed higher efficacy and sustained action for prophylaxis of postoperative nausea and vomiting (PONV).

METHODS: Randomized controlled trials involving adult population undergoing elective surgery under general anesthesia comparing palonosetron to placebo, ramosetron, granisetron, and ondansetron were included. Data were extracted for vomiting incidence (VI), complete response (no nausea/vomiting; Complete Response [CR]), and rescue antiemetic need. This was categorized as early phase (24 hours postoperative for ramosetron and 6 hours for rest) and delayed phase (48 hours for ramosetron and 24 hours for rest). VI and CR were used as markers of drug efficacy. Any adverse effects were evaluated.

RESULTS: Twenty-two trials (4 with 3 groups) were included (comparing palonosetron to placebo in 5, ramosetron in 5, granisetron in 4, and ondansetron in 12 subgroups). Palonosetron demonstrated statistical superiority over placebo for VI and CR, both early/delayed PONV prevention. For delayed phase, palonosetron surpassed ramosetron in all 3 variables; however, none of the variables attained statistical significance during early phase. In early phase,

palonosetron had better VI and CR than did granisetron; however, variables other than CR (better for palonosetron) failed to achieve statistical significance for delayed phase. All 3 outcomes were significantly better for palonosetron compared with ondansetron in delayed phase, but statistical superiority could only be demonstrated for VI in early phase. Being inconsistently documented across trials, nausea scores could not be evaluated.

CONCLUSION: Palonosetron is as safe as and more effective than placebo, ramosetron, granisetron, and ondansetron in preventing delayed PONV. For early PONV, it has higher efficacy over placebo, granisetron, and ondansetron.

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DOI: 10.1016/j.jclinane.2016.05.018
PMID: 27687434 [PubMed - in process]

135: Singh R, Suri A, Anand S, Baby B. Validation of Reverse-Engineered and Additive-Manufactured Microsurgical Instrument Prototype. Surg Innov. 2016 Dec;23(6):606-612. PubMed PMID: 27354550.

With advancements in imaging techniques, neurosurgical procedures are becoming highly precise and minimally invasive, thus demanding development of new ergonomically aesthetic instruments. Conventionally, neurosurgical instruments are manufactured using subtractive manufacturing methods. Such a process is complex, time-consuming, and impractical for prototype development and validation of new designs. Therefore, an alternative design process has been used utilizing blue light scanning, computer-aided designing, and additive manufacturing direct metal laser sintering (DMLS) for microsurgical instrument prototype development. Deviations of DMLS-fabricated instrument were studied by superimposing scan data of fabricated instrument with the computer-aided designing model. Content and concurrent validity of the fabricated prototypes was done by a group of 15 neurosurgeons by performing sciatic nerve anastomosis in small laboratory animals. Comparative scoring was obtained for the control and study instrument. T test was applied to the individual parameters and P values for force ($P < .0001$) and surface roughness ($P < .01$) were found to be statistically significant. These 2 parameters were further analyzed using objective measures. Results depicts that additive manufacturing by DMLS provides an effective method for prototype development. However, direct application of these additive-manufactured instruments in the operating room requires further validation.

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DOI: 10.1177/1553350616656282
PMID: 27354550 [PubMed - in process]

136: Singla S, Kumar P, Singh P, Kaur G, Rohtagi A, Choudhury M. HLA Profile of Celiac Disease among First-Degree Relatives from a Tertiary Care Center in North India. Indian J Pediatr. 2016 Nov;83(11):1248-1252. PubMed PMID: 27264101.

OBJECTIVE: To study the prevalence of Celiac disease (CD) in first-degree relatives (FDR) of CD children.

METHODS: This observational study was performed in FDR (parents and siblings) of consecutive newly diagnosed cases of CD enrolled from January 2011 through March 2012. Screening for CD in FDR was done using IgA tissue transglutaminase (tTG) levels in serum and the seropositive subset underwent upper gastrointestinal (UGI) endoscopy and biopsy to confirm the disease. In addition, HLA analysis for CD was performed in most of the index cases and FDR.

RESULTS: Of 202 FDR of the 64 index cases with CD, 17.3 % (35/202) were seropositive for IgA tTG while confirmed biopsy proven CD was diagnosed in 10.2 % (8/78) of children and 8.1 % (10/124) of adults. HLA DQ2/DQ8 was positive in 96.7 % of the index cases and all FDR with confirmed CD.

CONCLUSIONS: The prevalence of CD among FDR is 9 fold higher than the general population. High prevalence of CD in presence of anemia and short stature in seropositive FDR in index study indicates need of targeted screening of this subgroup for the presence of CD. CD is unlikely in the absence of HLADQ2/DQ8.

DOI: 10.1007/s12098-016-2146-7

PMID: 27264101 [PubMed - in process]

137: Sinha R, Shwetha S. Tracheo-oesophageal fistula with sub-glottic stenosis: Another option for airway management. *Indian J Anaesth.* 2016 Jun;60(6):447. doi: 10.4103/0019-5049.183402. PubMed PMID: 27330218; PubMed Central PMCID: PMC4910496.

138: Sinha S, Raheja A, Samson N, Bhoi S, Selvi A, Sharma P, Sharma BS. Blood mitochondrial enzymatic assay as a predictor of long-term outcome in severe traumatic brain injury. *J Clin Neurosci.* 2016 Aug;30:31-8. doi: 10.1016/j.jocn.2015.10.051. PubMed PMID: 27262871.

Recent studies have observed the central role of mitochondrial dysfunction in severe traumatic brain injury (sTBI). One hundred and seven sTBI patients (18-65years old, presenting within 8hours of injury) were randomised for a placebo controlled phase II trial of progesterone with or without hypothermia. We serially analysed blood mitochondrial enzymes (Complex I [C1], Complex IV [C4] and pyruvate dehydrogenase complex [PDH]) using a dipstick assay at admission and 7days later for 37 patients, irrespective of assigned group. Favorable Glasgow Outcome Scale (GOS) at 1year was associated with admission C1 levels above 0.19µg, admission C4 levels above 0.19µg and day 7 C1 levels above 0.17µg, all per 25µl of blood. Unfavorable GOS at 1year was associated with admission serum PDH levels above 0.23µg/25µl of blood. Survivors at 1year had significantly higher admission serum C1 levels above 0.19µg/25µl and day 7 C1 levels above 0.17µg/25µl. To our knowledge this is the first clinical trial associating blood mitochondrial enzymes with long-term outcome in sTBI. Serial monitoring and optimisation of blood C1, C4 and PDH levels could aid in prognostication and potentially guide in using mitochondrial targeted therapies. Blood mitochondrial enzymatic assay might suggest global reduction-oxidation status.

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DOI: 10.1016/j.jocn.2015.10.051

PMID: 27262871 [PubMed - in process]

139: Som A, Baidya DK, Arora MK, Maitra S, Gupta S. Rett syndrome: a concern for the anesthesiologists. *J Clin Anesth.* 2016 Jun;31:247-8. doi: 10.1016/j.jclinane.2016.01.017. PubMed PMID: 27185720.

140: Soneja M, Achintya S, Nischal N, Ranjan P, Vyas S, Arava S, Sharma SK. Chronic Tubulo-interstitial Pyelonephritis with Retroperitoneal Fibrosis. *J Assoc Physicians India.* 2016 Jun;64(6):71. PubMed PMID: 27739273.

A large proportion of patients with retroperitoneal fibrosis (RPF) have been labelled as having idiopathic RPF historically. Recent reports of a subset of these patients having a fibro-inflammatory condition with characteristic histology and good response to therapy has helped in renewed understanding of an old disease. A 40 year old man presented with vague abdominal discomfort of 5 months duration. Ultrasound examination revealed soft tissue thickening with calcification over lower abdominal aorta. CT scan characterized the lesion as a retroperitoneal mass encasing the aorta with an associated lesion in upper pole of left kidney. A laparoscopic surgery and biopsy of the mass lesions were performed. It was reported as chronic tubulo-interstitial disease with retroperitoneal fibrosis. In the post-operative period, patient developed fever

with weight loss. An 18F-FDG PET-CT done revealed FDG-avid retroperitoneal mass lesion. Serum IgG-4 levels were elevated and review of biopsy revealed features of IgG4 related disease. Patient had good response to treatment with steroids and azathioprine.

© Journal of the Association of Physicians of India 2011.

PMID: 27739273 [PubMed - in process]

141: Soundararajan R, Arora S, Das CJ, Roy M, Kumar R, Bal C. Primary Rectal Adenocarcinoma Metastasizing to Bilateral Breasts - a Rare Case Demonstrated by (18) F-FDG PET/CT. Nucl Med Mol Imaging. 2016 Jun;50(2):175-7. doi: 10.1007/s13139-015-0350-4. PubMed PMID: 27275372; PubMed Central PMCID: PMC4870456.

142: Subbiah AK, Arava S, Bagchi S, Madan K, Das CJ, Agarwal SK. Cavitory lung lesion 6 years after renal transplantation. World J Transplant. 2016 Jun 24;6(2):447-50. doi: 10.5500/wjt.v6.i2.447. PubMed PMID: 27358792; PubMed Central PMCID: PMC4919751.

The differential diagnoses of a cavitory lung lesion in renal transplant recipients would include infection, malignancy and less commonly inflammatory diseases. Bacterial infection, Tuberculosis, Nocardiosis, fungal infections like Aspergillosis and Cryptococcosis need to be considered in these patients. Pulmonary cryptococcosis usually presents 16-21 mo after transplantation, more frequently in patients who have a high level of cumulative immunosuppression. Here we discuss an interesting patient who never received any induction/anti-rejection therapy but developed both BK virus nephropathy as well as severe pulmonary Cryptococcal infection after remaining stable for 6 years after transplantation. This case highlights the risk of serious opportunistic infections even in apparently low immunologic risk transplant recipients many years after transplantation.

DOI: 10.5500/wjt.v6.i2.447

PMCID: PMC4919751

PMID: 27358792 [PubMed]

143: Suchal K, Bhatia J, Malik S, Malhotra RK, Gamad N, Goyal S, Nag TC, Arya DS, Ojha S. Seabuckthorn Pulp Oil Protects against Myocardial Ischemia-Reperfusion Injury in Rats through Activation of Akt/eNOS. Front Pharmacol. 2016 Jun 29;7:155. doi: 10.3389/fphar.2016.00155. PubMed PMID: 27445803; PubMed Central PMCID: PMC4925700.

Seabuckthorn (SBT) pulp oil obtained from the fruits of seabuckthorn [*Hippophae rhamnoides* L. (Elaeagnaceae)] has been used traditionally for its medicinal and nutritional properties. However, its role in ischemia-reperfusion (IR) injury of myocardium in rats has not been elucidated so far. The present study reports the cardioprotective effect of SBT pulp oil in IR-induced model of myocardial infarction in rats and underlying mechanism mediating activation of Akt/eNOS signaling pathway. Male albino Wistar rats were orally administered SBT pulp oil (5, 10, and 20 ml/kg/day) or saline for 30 days. On the day 31, ischemia was induced by one-stage ligation of left anterior descending coronary artery for 45 min followed by reperfusion for 60 min. SBT pulp oil pretreatment at the dose of 20 ml/kg observed to stabilize cardiac function and myocardial antioxidants such as glutathione, superoxide dismutase, catalase, and inhibited lipid peroxidation evidenced by reduced malondialdehyde levels as compared to IR-control group. SBT pulp oil also improved hemodynamic and contractile function and decreased tumor necrosis factor and activities of myocyte injury marker enzymes; lactate dehydrogenase and creatine kinase-MB. Additionally, a remarkable rise in

expression of pAkt-eNOS, Bcl-2 and decline in expression of IKK β /NF- κ B and Bax was observed in the myocardium. The histopathological and ultrastructural salvage of cardiomyocytes further supports the cardioprotective effect of SBT pulp oil. Based on findings, it can be concluded that SBT pulp oil protects against myocardial IR injury mediating favorable modulation of Akt-eNOS and IKK β /NF- κ B expression.

DOI: 10.3389/fphar.2016.00155

PMCID: PMC4925700

PMID: 27445803 [PubMed]

144: Swain R, Behera C, Arava SK, Kundu N. Sudden death of a child due to respiratory diphtheria. *Med Leg J.* 2016 Jun;84(2):90-3. doi: 10.1177/0025817215626542. PubMed PMID: 26768902.

A four-year-old girl presented to the emergency department with respiratory distress. Death occurred despite attempted resuscitation. The illness was not clinically diagnosed. Her father revealed that she had a fever and sore throat for the last four days and was not immunised for diphtheria. Characteristic gross and microscopic pathology of respiratory diphtheria and microbiological findings were observed. The cause of death was acute respiratory failure consequent upon upper airway obstruction from diphtheria. Forensic pathologists should remember that the diphtheria cases can cause sudden death especially in developing countries.

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DOI: 10.1177/0025817215626542

PMID: 26768902 [PubMed - in process]

145: Takkar B, Sharma P, Singh AK, Sahay P. Anterior segment optical coherence tomography for identifying muscle status in strabismus surgery. *Int J Ophthalmol.* 2016 Jun 18;9(6):933-4. doi: 10.18240/ijo.2016.06.26. PubMed PMID: 27366702; PubMed Central PMCID: PMC4916157.

146: 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.* 2016 Jun 16. [Epub ahead of print] 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 [PubMed - as supplied by publisher]

147: Talwar S, Rajashekar P, Gupta SK, Gulati GS, Airan B. Crossed Pulmonary Arteries in a Patient With Persistent Truncus Arteriosus. *Ann Thorac Surg.* 2016 Jun;101(6):2377-9. doi: 10.1016/j.athoracsur.2015.07.069. PubMed PMID: 27211951.

We report a 14-month-old child with persistent truncus arteriosus and crossed pulmonary arteries. The potential advantage of crossed pulmonary artery

arrangement in achieving surgical correction is discussed.

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DOI: 10.1016/j.athoracsur.2015.07.069

PMID: 27211951 [PubMed - in process]

148: Tripathy K. Is Helicobacter pylori the culprit behind central serous chorioretinopathy? Graefes Arch Clin Exp Ophthalmol. 2016 Oct;254(10):2069-2070. PubMed PMID: 27364118.

149: Tripathy K, Chawla R, Venkatesh P, Vohra R, Sharma YR. Clinical profile of medicolegal cases presenting to the eye casualty in a tertiary care center in India. Indian J Ophthalmol. 2016 Jun;64(6):422-6. doi: 10.4103/0301-4738.187656. PubMed PMID: 27488149; PubMed Central PMCID: PMC4991164.

PURPOSE: The purpose of this study was to analyze the clinical profile of medicolegal cases (MLCs) presenting to the eye casualty in a tertiary care hospital.

MATERIALS AND METHODS: Retrospective review of records. The cases were grouped according to the Ocular Trauma Classification Group classification system.

RESULTS: Out of 188 MLCs, 164 (87.2%) were male. Mean age (\pm standard deviation) was 31.6 (\pm 12.7) years. Age ranged from 7 to 75 years. Twenty-six (13.8%) patients had bilateral involvement. The fist was the most common mode of injury, which was seen in 109 (58%) cases. A total of 27 (14.3%) patients had associated extraocular injury. No evidence of ocular or orbital trauma (malingerer) could be found in 13 (7%) patients. Mechanical trauma was present in 169 (90%) patients with injury to globe in 129 (69%) patients and injury to lid or orbit without damage to the globe in 40 (21%) patients. Chemical injury was observed in 6 (3%) patients. Closed globe injury (CGI) was seen in 116 eyes and open globe injury (OGI) was noted in 29 eyes. The most common type of injury, zone, pupil, and grade of injury in CGI were Type A or contusion (79%), Zone I (72%), Pupil B (absence of relative afferent pupillary defect) in 95%, and Grade A [visual acuity (VA) \geq 20/40] in 68% of the eyes, respectively. The most common type of injury, zone, pupil, and grade of injury in OGI were Type B or penetrating (48%), Zone II (38%), Pupil B (59%), and Grade D (VA 4/200-light perception) (42%), respectively.

CONCLUSIONS: The most common form and mode of ocular injury in MLC were closed globe injury and fist, respectively. The most common type of injury in CGI and OGI was contusion and penetrating injury, respectively.

DOI: 10.4103/0301-4738.187656

PMCID: PMC4991164

PMID: 27488149 [PubMed - in process]

150: Venkatesan S, Purohit A, Aggarwal M, Singh PK, Seth T, Pati HP. Priapism Associated with Homozygous Hb E State: A Causal Association or an Incidental Finding? Indian J Hematol Blood Transfus. 2016 Jun;32(Suppl 1):301-3. doi: 10.1007/s12288-014-0459-0. PubMed PMID: 27408418; PubMed Central PMCID: PMC4925470.

151: Venkatesh P, Gogia V, Shah B, Gupta S, Sagar P, Garg S. Patterns of uveitis at the Apex Institute for Eye Care in India: Results from a prospectively enrolled patient data base (2011-2013). Int Ophthalmol. 2016 Jun;36(3):365-72. doi: 10.1007/s10792-015-0128-9. PubMed PMID: 26408195.

The purpose of the study was to identify the clinical and etiological profile of

uveitis at the apex institute for eye care in India. This is a prospective, prevalence study. 980 consecutive patients with uveitis referred to uvea clinic, Dr. RP Centre for Ophthalmic Sciences (Ophthalmology division, All India Institute of Medical Sciences). Demographic data of each patient were noted and a thorough ocular examination including slit lamp examination and dilated fundus evaluation was carried out. OCT and fluorescein angiography were undertaken whenever indicated. Uveitis was classified based on the anatomic location of inflammation (IUSG classification). Relevant serological and radiological investigations were obtained based on systemic symptomatology, and if the uveitis was recurrent (even in the absence of systemic symptoms). The presence of a systemic disease was confirmed by obtaining an internist consultation. The main outcome measures include pattern of uveitis according to anatomical classification and the etiology. Out of 980 patients with uveitis, 413 (42.14 %) patients had anterior uveitis, 131 (13.36 %) had intermediate uveitis, 165 (16.83 %) had posterior uveitis, 91 (9.2 %) had panuveitis, 47 (4.7 %) had retinal vasculitis, 22 (2.24 %) had scleritis, 17 (1.7 %) had masquerade syndromes, 8 (0.8 %) had keratouveitis, 22 (2.24 %) had sclerokeratouveitis, 19 (1.9 %) had endophthalmitis and 45 (4.5 %) had other causes of inflammation including trauma and intraocular surgery. Out of all uveitic patients definite etiological correlation could be made out in 225 (23 %) patients; thus 77 % were categorised as idiopathic. Only 9 % of all patients were found to have uveitis with an infectious etiology. Amongst infectious causes of uveitis tuberculosis was the leading cause, accounting for sixty percent of all infectious uveitis (approximately 5 % of overall uveitis). Non-infectious uveitis etiology accounted for more than 90 % of all cases with ankylosing spondylitis being the most common followed by sarcoidosis and juvenile rheumatoid arthritis. Amongst known uveitic syndromes serpiginous like choroidopathy was the most common and was followed by acute posterior placoid pigmented epitheliopathy and Fuch's heterochromic iridocyclitis. Infection, including tuberculosis, is an infrequent cause of uveitis in the study population. Multicentric, collaborative efforts are required to improve levels of clinical evidence and evolve consensus in establishing stringent guidelines for labelling uveitis as being of infectious etiology.

DOI: 10.1007/s10792-015-0128-9

PMID: 26408195 [PubMed - in process]

152: Wadhvani M, Venkatesh P, Gogia V, Gupta S, Sharma Y, Pandey V. Patterns of pseudophakic retinal detachment in a referral tertiary care center and the need for improving cataract surgical training. *Eur J Ophthalmol.* 2016 Jun 10;26(4):361-3. doi: 10.5301/ejo.5000737. PubMed PMID: 26833227.

PURPOSE: To determine the risk factors associated with development of rhegmatogenous retinal detachment (RRD) in patients undergoing different types of cataract surgery.

METHODS: Records of 200 patients presenting with pseudophakic retinal detachment (PRD) between January 2012 and July 2013 at a tertiary care center were reviewed. Duration and type of cataract surgery (phacoemulsification, extracapsular cataract extraction [ECCE], and small-incision cataract surgery [SICS]) and history of YAG capsulotomy with risk factors were recorded. Presence or absence of these risk factors was analyzed and their association with type of cataract surgery was evaluated.

RESULTS: Of these 200 patients, 137 were male and 63 were female. The mean age of the patients was 55.19 ± 12.60 years and mean duration of cataract surgery to diagnosis of RRD was 8.64 ± 5.15 months. Most patients underwent phacoemulsification (45%), followed by ECCE (31.5%) and SICS (23.5%). Most of the patients with PRD had complicated cataract surgery with intraocular lens (IOL) in sulcus in 63%, anterior chamber IOL in 3%, and aphakia in 0.5%. There was no difference among the 3 types of surgery performed in mean presenting visual acuity, duration between cataract surgery and YAG capsulotomy, or number of posterior chamber IOLs. Incidence of posterior capsular rent ($p = 0.02$) and

presence of vitreous in anterior chamber ($p = 0.01$) were significantly higher for patients with retinal detachment (RD) who underwent SICS.

CONCLUSIONS: Many risk factors are associated with RD development after cataract surgery. More stringent efforts at improving the quality of cataract surgical training are likely to help in reducing the risk of PRD.

DOI: 10.5301/ejo.5000737

PMID: 26833227 [PubMed - in process]

153: Yadav R, Yadav RK, Pandey RM, Kochar KP. Effect of a Short-Term Yoga-Based Lifestyle Intervention on Health-Related Quality of Life in Overweight and Obese Subjects. *J Altern Complement Med*. 2016 Jun;22(6):443-9. doi: 10.1089/acm.2015.0268. PubMed PMID: 27136198.

OBJECTIVE: To study the effect of a short-term yoga-based lifestyle intervention on health-related quality of life (HRQOL) in overweight and obese persons.

DESIGN AND SETTING: Nonrandomized, single-arm interventional study conducted from August 2012 to March 2015 at Integral Health Clinic, Department of Physiology, All India Institute of Medical Sciences, New Delhi, India.

PARTICIPANTS: Overweight (body-mass index [BMI], 23-24.9 kg/m²) and obese (BMI, ≥ 25 kg/m²) persons (n=279) aged 20-60 years.

INTERVENTION: Pretested yoga-based lifestyle intervention, including asanas (postures), pranayama (breathing exercises), relaxation techniques, lectures, group support, nutrition awareness program, and individualized advice.

OUTCOME MEASURES: Primary outcome measure was HRQOL, measured by using short version of World Health Organization Quality of Life (WHOQOL-BREF) questionnaire. Secondary outcome measures were anthropometric variables, systolic and diastolic blood pressure, pulse rate, lipid profile, and fasting glucose. A subgroup analysis according to sex was also performed.

RESULTS: The overall quality of life and health improved after short-term yoga-based lifestyle intervention in overweight and obese persons. Physical, psychological and environmental domain scores significantly increased from baseline to day 10, and efficacy was noted in both male and female subgroups. After 10 days of intervention, the following also decreased significantly: body weight, BMI, total body fat, waist and hip circumference, waist-to-hip ratio, systolic and diastolic blood pressure, total cholesterol, low-density lipoprotein, triglycerides, and fasting glucose.

CONCLUSION: A short-term yoga-based lifestyle intervention had a positive effect on HRQOL in overweight and obese persons.

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