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1: Agarwal KK, Karunanithi S, Jain S, Tripathi M. Horseshoe kidney mimicking cross-fused ectopia on (99m)Tc-EC renal dynamic scintigraphy. Indian J Nucl Med. 2014 Apr;29(2):117-9. doi: 10.4103/0972-3919.130304. PubMed PMID: 24761069; PubMed Central PMCID: PMC3996767.

The 'horseshoe kidney' is the most common renal fusion anomaly. In this disorder, two developed kidneys are connected to each other at the lower part and grow together. We report a case of horseshoe kidney mimicking cross-fused ectopia in (99m)Tc-EC renal dynamic scintigraphy.

PMCID: PMC3996767

PMID: 24761069 [PubMed]

2: Agarwal KK, Karunanithi S, Jain S, Tripathi M. A case of dual ectopy thyroid along the thyroglossal tract demonstrated on 99mTc-Pertechnatate hybrid single photon emission computed tomography/computed tomography. Indian J Nucl Med. 2014 Apr;29(2):105-7. doi: 10.4103/0972-3919.130300. PubMed PMID: 24761065; PubMed Central PMCID: PMC3996763.

Ectopic thyroid tissue (ETT) refers to the presence of thyroid tissue in locations other than the normal anterior neck region between the second and fourth tracheal cartilages. Multiple ectopia of the thyroid is extremely rare. Here we report a case of 10-year-old girl with anterior midline neck swelling and hypothyroidism with dual ectopia of thyroid gland without orthotopic thyroid gland. Planar 99 m-technetium pertechnatate scan identified ETT corresponding to the palpable neck swelling. Single photon emission computed tomography/computed tomography (SPECT/CT) demonstrated ETT in two locations, one corresponding to the palpable mass and another in the in the sublingual location. This case thus demonstrates the important role of hybrid SPECT/CT in the identification of dual ectopia along the thyroglossal tract.

PMCID: PMC3996763

PMID: 24761065 [PubMed]

3: Agarwal T, Jhanji V, Singh D, Khokhar S. Two-step technique for posterior optic buttonholing of intraocular lens. Optom Vis Sci. 2014 Apr;91(4 Suppl 1):S17-9. doi: 10.1097/OPX.000000000000180. PubMed PMID: 24584307.

PURPOSE: This study aims to describe a two-step surgical technique for placement of a posterior chamber intraocular lens (IOL) in cases with crystalline lens subluxation resulting from non-progressive zonular dialysis.

METHODS: The first stage entails a phacoemulsification with creation of a 4-mm posterior capsular opening using an automated vitrector. The second stage performed 6 weeks later includes an anterior vitrectomy and injection of a foldable three-piece IOL in the sulcus. The haptics of IOL are positioned in the sulcus while the optic is pushed behind the posterior capsular opening therefore "buttonholing" the IOL.

RESULTS: Seven eyes of seven patients with posttraumatic zonular dialysis were operated using this technique. Follow-up of all cases revealed a well-centered IOL with good postoperative visual acuity (20/20 to 20/80).

CONCLUSIONS: Our two-stage surgical technique precludes the insertion of capsular tension ring in cases with non-progressive zonular dialysis. The technique is recommended in the presence of less than or equal to 6 clock hours of zonular dialysis with preexisting posterior capsular tear or herniation of vitreous in the anterior chamber.

PMID: 24584307 [PubMed - indexed for MEDLINE]

4: Aggarwal S, Bansal A. Laparoscopic management of renal hydatid cyst. *JLS*. 2014 Apr-Jun;18(2):361-6. doi: 10.4293/108680813X13753907291396. PubMed PMID: 24960508; PubMed Central PMCID: PMC4035655.

INTRODUCTION: Renal involvement by hydatid disease is uncommon. The patients may be asymptomatic or present with flank pain, hematuria, and hypertension. Surgery is the mainstay of treatment, and options include cyst deroofing, partial nephrectomy, and total nephrectomy. We share our experience of laparoscopic management of 3 patients with large hydatid cysts of the kidney and review the literature.

CASE DESCRIPTION: Three patients with hydatid cysts of the kidney were treated at our institution between 2008 and 2010. In all 3 patients, hydatid disease involved the left kidney. One of the three cases also had concomitant liver involvement. Abdominal pain was the predominant symptom. A flank mass was palpable in 2 patients. The diagnosis was confirmed on abdominal ultrasonography and computed tomography in all 3 patients. Laparoscopic management was successfully completed in 2 patients. A large intrahepatic cyst in 1 patient prompted conversion to an open procedure. A special hydatid trocar-cannula system helps in eliminating the possibility of spillage from the cyst while puncturing and aspirating the cyst.

DISCUSSION: There are few reports on laparoscopic management of this uncommon disease of the kidney. In our series the laparoscopic management was attempted in all 3 cases. The procedures included laparoscopic aspiration of the cyst contents along with subtotal excision of the ectocyst in 2 patients and nephrectomy in 1 patient. The latter case had to be converted to an open procedure because of inaccessibility of the intrahepatic liver hydatid cyst. Laparoscopic management of renal hydatid cysts is feasible and safe.

PMCID: PMC4035655

PMID: 24960508 [PubMed - in process]

5: Ahmad F, Oyen F, Jan R, Budde U, Schneppenheim R, Saxena R. Germline de novo mutations and linkage markers vs. DNA sequencing for carrier detection in von Willebrand disease. *Haemophilia*. 2014 Jul;20(4):e311-7. doi: 10.1111/hae.12441. Epub 2014 Apr 8. PubMed PMID: 24712919.

Linkage analysis in autosomal inherited von Willebrand disease (VWD) is important to diagnose the carriers and reduce the burden of severe type VWD. The study was designed to identify the carriers and estimate the frequency of variable number of tandem repeats (VNTR) instability in VWD families. Carrier detection was performed in eight recessive type 3 VWD (VWD3) families using VNTRs VWF1 and VWF2, RsaI (789Thr/Ala) linkage markers, multimer analysis and DNA sequencing. Moreover, five dominant VWD families were studied through DNA sequencing and multimer analysis. Frequency of VWF VNTR instability was investigated in 20 VWD families. In VWD3 families, a total of 22 (81.5%) carriers were identified using VWF1 and VWF2 markers. However, only 13 (48.1%) carriers were identified through RsaI markers. Mutation screening revealed 22 (81.5%) carriers in VWD3 and 4 (33.3%) carriers in VWD2 families. In comparison to DNA sequencing, the accuracy of VWF1 and VWF2 markers in VWD3 was 85.7% while RsaI could identify 68.2% carriers accurately. Mutations p.R1205H and p.C1272R were identified as de novo in families. Multimer analysis confirmed the identified carriers in VWD2 families. Three VWD families were found to be carrying VNTR instability for VWF1 and VWF2 locus. VNTRs could be an effective linkage markers for carrier detection in VWD3 families. However, in the event of germline de novo mutations and VNTR instability, it may confound risk of misdiagnosis of carriers. Multimer analysis could be an alternative way of carrier detection in dominant type 2A and type 2B VWD families.

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PMID: 24712919 [PubMed - in process]

6: Ahmed NH, Samantaray JC. Quantitative buffy coat analysis-an effective tool for diagnosing blood parasites. *J Clin Diagn Res.* 2014 Apr;8(4):DH01. doi: 10.7860/JCDR/2014/7559.4258. Epub 2014 Apr 15. PubMed PMID: 24959448; PubMed Central PMCID: PMC4064892.

Quantitative buffy coat (QBC) analysis, which is based on principle of centrifugal stratification of blood components, is a well-known and a very sensitive technique which can be used for the detection of malarial parasites in peripheral blood. In our experience, this technique is also highly specific for doing speciation of malarial parasite in Indian set up. In addition, this technique was also found to be a sensitive and specific tool for diagnosing filariasis. Lastly, the cellular pattern of buffy coat in QBC, together with other non-specific findings, has many times aided in making correct diagnoses in difficult cases of visceral Leishmaniasis.

PMCID: PMC4064892

PMID: 24959448 [PubMed]

7: Akshat S, Ramachandran R, Rewari V, Chandralekha, Trikha A, Sinha R. Morphine versus Nalbuphine for Open Gynaecological Surgery: A Randomized Controlled Double Blinded Trial. *Pain Res Treat.* 2014;2014:727952. doi: 10.1155/2014/727952. Epub 2014 Apr 14. PubMed PMID: 24834352; PubMed Central PMCID: PMC4009305.

Introduction. Pain is the commonest morbidity after open surgical procedures. The most effective treatment of postoperative pain is opioid therapy. Morphine, the commonly used opioid, is associated with many side effects including respiratory depression, sedation, postoperative nausea vomiting, and pruritus. Nalbuphine, on the other hand, is known to cause less respiratory depression. Thus this study was undertaken to compare the intraoperative and postoperative analgesic efficacy and side effect profile of the two drugs. Methodology. 60 patients undergoing open gynaecological surgery were randomized to receive either morphine (Group M) or nalbuphine (Group N) in the intraoperative and postoperative period. Intraoperative analgesic efficacy (measured by need for rescue analgesics), postoperative pain by visual analogue scale, and side effects like postoperative nausea, vomiting, sedation, respiratory depression, and pruritus were compared in both groups. Intraoperative and postoperative heart rate and blood pressure were also compared between the groups. Results. Need for intraoperative analgesia was significantly more in Group N ($P = 0.023$). Postoperative VAS scores were significantly different between the groups at various time points; however, none of the patients required any rescue analgesia. The incidence of various side effects was not significantly different between the groups. The haemodynamic profile of patients was comparable between the groups in both intraoperative and postoperative period. Conclusion. Nalbuphine provides less effective intraoperative analgesia than morphine in patients undergoing open gynaecological surgery under general anaesthesia. Both drugs, however, provided similar postoperative analgesia and had similar haemodynamic and side effect profile.

PMCID: PMC4009305

PMID: 24834352 [PubMed]

8: Anand A, Srivastava N, Barwad P, Ramakrishnan S, Roy A, Bhargava B. Dyspnea in Eisenmenger syndrome and its amelioration by sildenafil: role of J receptors. *Int J Cardiol.* 2014 Jul 1;174(3):574-8. doi: 10.1016/j.ijcard.2014.04.131. Epub 2014 Apr 21. PubMed PMID: 24820738.

BACKGROUND: In Eisenmenger syndrome (ES), oral phosphodiesterase type-5 inhibitors, which are preferential pulmonary vasodilators, reduce the elevated pulmonary artery pressure and pulmonary vascular resistance index by increasing cyclic guanosine monophosphate (cGMP). However, no information is available as to how pulmonary vasodilatation alleviates the accompanying dyspnoea and improves patient's exercising ability.

OBJECTIVES: As the natural stimulus of juxtapulmonary capillary (J) receptors is an increase in interstitial pressure, the aim was to estimate their threshold level stimulation chemically by intravenous lobeline, before and after 6 weeks of sildenafil therapy in treatment-naive ES patients.

METHODS: Nine Eisenmenger syndrome patients [mean age=26 (SD=1.6) years] underwent 6MWT and an exercise test before and 6 weeks after oral sildenafil (20mg 3× D). Their respiratory responses to threshold doses of intravenous lobeline were determined at both these stages.

RESULTS: After 6 weeks of sildenafil therapy, the 6MWD [from 453.3 (SD=50.9) m to 516.6 (SD=48.9) m; P=0.001] and the duration of exercise with the modified Bruce protocol from 7 min 53 s (SD=0.04) to 10 min 44 s (SD=0.88) (P=0.001) improved significantly. However, the improvement in oxygen saturation was not noteworthy. The lobeline dose required to produce threshold level of respiratory effects was higher in ES patients [37.5 (SD=3.4) µg/kg] and with sildenafil therapy it fell significantly [20.6 (SD=1.8) µg/kg; P=0.001].

CONCLUSIONS: J receptor threshold doses were elevated in ES patients and fell significantly with sildenafil therapy that was associated with improved exercise tolerance, implying thereby a role of J receptors in producing dyspnea in ES patients.

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PMID: 24820738 [PubMed - in process]

9: Andrade LH, Alonso J, Mneimneh Z, Wells JE, Al-Hamzawi A, Borges G, Bromet E, Bruffaerts R, de Girolamo G, de Graaf R, Florescu S, Gureje O, Hinkov HR, Hu C, Huang Y, Hwang I, Jin R, Karam EG, Kovess-Masfety V, Levinson D, Matschinger H, O'Neill S, Posada-Villa J, Sagar R, Sampson NA, Sasu C, Stein DJ, Takeshima T, Viana MC, Xavier M, Kessler RC. Barriers to mental health treatment: results from the WHO World Mental Health surveys. *Psychol Med.* 2014 Apr;44(6):1303-17. doi: 10.1017/S0033291713001943. Epub 2013 Aug 9. PubMed PMID: 23931656; PubMed Central PMCID: PMC4100460.

BACKGROUND: To examine barriers to initiation and continuation of mental health treatment among individuals with common mental disorders.

METHOD: Data were from the World Health Organization (WHO) World Mental Health (WMH) surveys. Representative household samples were interviewed face to face in 24 countries. Reasons to initiate and continue treatment were examined in a subsample (n = 636 78) and analyzed at different levels of clinical severity.

RESULTS: Among those with a DSM-IV disorder in the past 12 months, low perceived need was the most common reason for not initiating treatment and more common among moderate and mild than severe cases. Women and younger people with disorders were more likely to recognize a need for treatment. A desire to handle the problem on one's own was the most common barrier among respondents with a disorder who perceived a need for treatment (63.8%). Attitudinal barriers were much more important than structural barriers to both initiating and continuing treatment. However, attitudinal barriers dominated for mild-moderate cases and structural barriers for severe cases. Perceived ineffectiveness of treatment was the most commonly reported reason for treatment drop-out (39.3%), followed by negative experiences with treatment providers (26.9% of respondents with severe disorders).

CONCLUSIONS: Low perceived need and attitudinal barriers are the major barriers to seeking and staying in treatment among individuals with common mental disorders worldwide. Apart from targeting structural barriers, mainly in countries with poor resources, increasing population mental health literacy is an important endeavor worldwide.

PMCID: PMC4100460 [Available on 2015/4/1]

PMID: 23931656 [PubMed - in process]

10: Arora S, Singh PM, Goudra BG, Sinha AC. Changing trends of hemodynamic monitoring in ICU - from invasive to non-invasive methods: Are we there yet? *Int J Crit Illn Inj Sci.* 2014 Apr;4(2):168-77. doi: 10.4103/2229-5151.134185. PubMed PMID: 25024945; PubMed Central PMCID: PMC4093968.

Hemodynamic monitoring in the form of invasive arterial, central venous pressure and pulmonary capillary wedge pressure monitoring may be required in seriously ill Intensive care unit patients, in patients undergoing surgeries involving gross hemodynamic changes and in patients undergoing cardiac surgeries. These techniques are considered the gold standards of hemodynamic monitoring but are associated with their inherent risks. A number of non-invasive techniques based on various physical principles are under investigation at present. The goal is to not only avoid the risk of invasive intervention, but also to match the gold standard set by them as far as possible. Techniques based on photoplethysmography, arterial tonometry and pulse transit time analysis have come up for continuous arterial pressure monitoring. Of these the first has been studied most extensively and validated, however it has been shown to be substandard in patients with gross hemodynamic instability. The other two still need further evaluation. While the non-invasive methods for arterial blood pressure monitoring are based on diverse technologies, those for measurement of central venous and pulmonary pressures are mostly based on imaging techniques such as echocardiography, Doppler ultrasound, computed tomography scan and chest X ray. Most of these techniques are based on measurement of the dimensions of the great veins. This makes them operator and observer dependent. However, studies done till now have revealed adequate inter-observer agreement. These techniques are still in their incipience and although initial studies are encouraging, further research is needed on this front.

PMCID: PMC4093968

PMID: 25024945 [PubMed]

11: Bahl A, Kumar P, Dar L, Mohanti BK, Sharma A, Thakar A, Karthikeyan V, Sikka K, Singh C, Poo K, Lodha J. Prevalence and trends of human papillomavirus in oropharyngeal cancer in a predominantly north Indian population. *Head Neck.* 2014 Apr;36(4):505-10. doi: 10.1002/hed.23317. Epub 2013 Jun 1. PubMed PMID: 23729189.

BACKGROUND: Human papillomavirus (HPV) prevalence in oropharyngeal squamous cell cancer (SCC) remains variable and studies have estimated that up to 60% may be positive.

METHODS: One hundred five treatment-naïve oropharyngeal SCC patients were included. HPV genotyping was done by consensus polymerase chain reaction (PCR) and reverse line-blot hybridization assay. HPV prevalence was co-related with sex, age, tobacco consumption, alcohol use, and high-risk sexual behavior.

RESULTS: HPV prevalence was 22.8%. No significant associations were seen between tobacco or alcohol consumption with HPV status. The mean number of lifetime sexual partners and indulgence in high-risk sexual behavior was significantly more in patients who are HPV positive. There were no significant associations between the 2 groups with respect to the stage of the tumor.

CONCLUSION: Results of this study confirms that patients who are HPV positive are

younger, and with high-risk sexual behavior. We did not find any impact of smoking and alcohol consumption on HPV status.

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PMID: 23729189 [PubMed - in process]

12: Barik M, Bajpai M, Das RR, Malhotra A, Panda SS, Sahoo MK, Dwivedi S. Role of (99m)Tc-ECD SPECT in the Management of Children with Craniosynostosis. *Biomed Res Int.* 2014;2014:172646. doi: 10.1155/2014/172646. Epub 2014 Apr 16. PubMed PMID: 24987670; PubMed Central PMCID: PMC4009198.

Purpose of the Report. There is a paucity of data on correlation of various imaging modalities with clinical findings in craniosynostosis. Moreover, no study has specifically reported the role of (99m)Tc-ECD SPECT in a large number of subjects with craniosynostosis. **Materials and Methods.** We prospectively analyzed a cohort of 85 patients with craniosynostosis from year 2007 to 2012. All patients underwent evaluation with (99m)Tc-ECD SPECT and the results were correlated with radiological and surgical findings. **Results.** (99m)Tc-ECD SPECT revealed regional perfusion abnormalities in the cerebral hemisphere corresponding to the fused sutures preoperatively that disappeared postoperatively in all the cases. Corresponding to this, the mean mental performance quotient (MPQ) increased significantly ($P < 0.05$) postoperatively only in those children with absent perfusion defect postoperatively. **Conclusions.** Our study suggests that early surgery and release of craniosynostosis in patients with preoperative perfusion defects (absent on (99m)Tc-ECD SPECT study) are beneficial, as they lead to improved MPQ after surgery.

PMCID: PMC4009198

PMID: 24987670 [PubMed - in process]

13: Barman A, Shanmugasundaram D, Bhide R, Viswanathan A, Magimairaj HP, Nagarajan G, Arumugam E, Tharion G, Thomas R. Survival in persons with traumatic spinal cord injury receiving structured follow-up in South India. *Arch Phys Med Rehabil.* 2014 Apr;95(4):642-8. doi: 10.1016/j.apmr.2013.11.003. Epub 2013 Nov 22. PubMed PMID: 24275065.

OBJECTIVE: To assess the survival in persons with traumatic spinal cord injury (SCI) receiving structured follow-up in South India.

DESIGN: Retrospective study.

SETTING: Rehabilitation center.

PARTICIPANTS: Persons with traumatic SCI (N=490) residing within a 100-km radius of the institute who were managed and regularly followed up by the rehabilitation center between the years 1981 and 2011.

INTERVENTIONS: Not applicable.

MAIN OUTCOME MEASURES: Survival rates and mortality risk factors. Measures were estimated using the product limit (Kaplan-Meier) method and the Cox model.

RESULTS: The survival rate after SCI was 86% after 5 years, 71% after 15 years, and 58% after 25 years. Survival of persons with complete high cervical injury is substantially low compared with other levels of SCI. Level of injury and extent of lesion (Frankel classification and/or American Spinal Injury Association Impairment Scale) play a significant role in predicting survival of this population.

CONCLUSIONS: Survival rates of regularly followed-up persons with SCI from this study show promising results, though survival rates are lesser when compared with studies from developed countries. Better understanding of the predictors, causes of deaths, comprehensive rehabilitation, community integration, and regular follow-up could possibly assist in improving survival rates.

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PMID: 24275065 [PubMed - indexed for MEDLINE]

14: Barwar N, Meena S, Aggarwal SK, Garhwal P. Dynamic hip screw with locking side plate: a viable treatment option for intertrochanteric fracture. *Chin J Traumatol*. 2014 Apr 1;17(2):88-92. PubMed PMID: 24698577.

OBJECTIVE: Dynamic hip screw (DHS) is recommended for the fixation of stable intertrochanteric fractures. Its postoperative cut-out rate ranges from 1% to 6%. In osteoporotic bone, normal screws in DHS blade provide less anchorage compared to locking screws. This study aims to compare DHS with locking side plate and conventional side plate.

METHODS: Fifty consecutive patients with intertrochanteric fractures were randomly allocated for fixation with a standard DHS (group A) and locking DHS (Combi plate, group B). We compared the clinical and radiological outcomes for the conventional DHS and locking DHS in intertrochanteric fractures. Functional outcome was evaluated using the Parker mobility score.

RESULTS: Coxa valga was found more frequently in group A than in group B (12% vs. 0%, $P=0.42$). Coxa vara showed the same trend (12% vs. 8%, $P=0.81$). Rate of restoration of postoperative neck-shaft angle within 20° of sound side was higher in group B (8% cases) than in group A (4% cases, $P=0.98$). The rate of anteversion angle restoration within 10° of sound side was also higher in group B (100% vs. 88%, $P=0.85$). The average lag screw slippage in group A and group B was 3.2 mm and 4.2 mm, the average fracture union duration was 17.1 weeks and 16.4 weeks, and the mean Parker score was 5.6 and 5.8 respectively. Screw cut-out was seen in one patient in group A. No cut-out was seen in any of the patient in group B. No patient developed deep infection, avascular necrosis, deep vein thrombosis or any other significant complications.

CONCLUSION: The present study demonstrated that treating intertrochanteric fracture with a locking DHS allows sound bone healing and is not associated with any major complications. Although this report is promising, it should be interpreted with caution because only a prospective study with a large sample size would allow definitive conclusion.

PMID: 24698577 [PubMed - in process]

15: Behera C, Rautji R, Krishna K, Kumar A, Gupta SK. Suicide note on the palm: three case reports and discussion of medico-legal aspects. *Med Sci Law*. 2014 Apr;54(2):84-7. doi: 10.1177/0025802413496410. Epub 2013 Aug 28. PubMed PMID: 23986149.

Suicide notes are usually written by the victim on paper or readily accessible things such as notebooks, walls or mirrors. Though writing may be found on the body of the deceased, suicide notes in a structured manner written on the palm have not been reported in forensic literature. In all the three cases presented here, we found a handwritten note on the palm of the deceased at the time of autopsy. The victims had written a brief note in their own handwriting, citing the reasons for ending their lives. The suicide note in one case also mentioned details regarding the custody of the victim's children to be given to her mother. Since we have not found similar cases in the literature, we present and discuss our three cases herein.

PMID: 23986149 [PubMed - indexed for MEDLINE]

16: Bharti S, Rani N, Krishnamurthy B, Arya DS. Preclinical evidence for the pharmacological actions of naringin: a review. *Planta Med.* 2014 Apr;80(6):437-51. doi: 10.1055/s-0034-1368351. Epub 2014 Apr 7. PubMed PMID: 24710903.

Naringin, chemically 4',5,7- trihydroxyflavanone-7-rhamnoglucoside, is a major flavanone glycoside obtained from tomatoes, grapefruits, and many other citrus fruits. It has been experimentally documented to possess numerous biological properties such as antioxidant, anti-inflammatory, and antiapoptotic activities. In vitro and in vivo studies have further established the usefulness of naringin in various preclinical models of atherosclerosis, cardiovascular disorders, diabetes mellitus, neurodegenerative disorders, osteoporosis, and rheumatological disorders. Apart from this, naringin has also exerted chemopreventive and anticancer attributes in various models of oral, breast, colon, liver, lung, and ovarian cancer. This wide spectrum of biological expediency has been documented to be a result of either the upregulation of various cell survival proteins or the inhibition of inflammatory processes, or a combination of both. Due to the scarcity of human studies on naringin, this review focuses on the various established activities of naringin in in vitro and in vivo preclinical models, and its potential therapeutic applications using the available knowledge in the literature. Additionally, it also encompasses the pharmacokinetic properties of naringin and its inhibition of CYP isoenzymes, and the subsequent drug interactions. Moreover, further clinical research is evidently needed to provide significant insights into the mechanisms underlying the effects of naringin in humans.

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PMID: 24710903 [PubMed - in process]

17: Bhatia V, Kumar P. Alagille syndrome with a previously undescribed mutation. *Indian Pediatr.* 2014 Apr;51(4):314-6. PubMed PMID: 24825276.

BACKGROUND: Alagille Syndrome is a rare genetic disease characterized by abnormalities of the intrahepatic biliary ducts with cholestasis along with multisystem anomalies.

CASE CHARACTERISTICS: An 8-year old child with persisting jaundice, severe itching and failure to thrive.

OBSERVATION: Diagnosis of Alagille syndrome was made on the basis of clinical features, typical facies and liver biopsy showing bile duct paucity. Genetic analysis revealed a novel de novo mutation in the JAG 1 gene.

OUTCOME: The child was started on ursodeoxycholic acid following which the itching improved.

MESSAGE: A novel de novo mutation in JAG 1 gene is described in this child with Alagille Syndrome.

PMID: 24825276 [PubMed - in process]

18: Bisoi AK, Ahmed T, Malankar DP, Chauhan S, Das S, Sharma P, Saxena A, Boopathy NS. Midterm outcome of primary arterial switch operation beyond six weeks of life in children with transposition of great arteries and intact ventricular septum. *World J Pediatr Congenit Heart Surg.* 2014 Apr;5(2):219-25. doi: 10.1177/2150135113515487. PubMed PMID: 24668968.

BACKGROUND: We have previously reported our experience in primary arterial switch operation (ASO) in children more than six weeks with transposition of great arteries and intact ventricular septum (TGA/IVS). The upper age limit for performing an ASO in these children is not yet settled and reports regarding outcome of ASO in these children are few. In this prospective observational

study, we report the midterm results of children with TGA-IVS older than six weeks undergoing primary ASO.

METHODS: A total of 109 children aged more than 6 weeks with median age of 60 days (range 42-3,000 days), with regressed left ventricle underwent primary ASO. Extracorporeal membrane oxygenation was used in 20% (22 of 109) of them; 90.8% (99 of 109) of children who survived were prospectively followed, with a mean follow-up of 28 months (range 18-84 months).

RESULTS: Two late deaths occurred, and survival in the remainder was estimated to be 98% at seven years. The incidence of aortic regurgitation (AR) was found to have a decreasing trend with freedom from AR approaching 100% by 34 months. The left ventricular shape and function returned to normal within one to three months following surgery. None of these children had any rhythm disturbances or evidence of myocardial ischemia.

CONCLUSIONS: Primary ASO can be safely performed in children with regressed ventricle, irrespective of age with encouraging results. The midterm results of these children are comparable in terms of survival and freedom from complications associated with preserved ventricle.

PMID: 24668968 [PubMed - in process]

19: Chakrabarty B, Sharma MC, Gulati S, Kabra M, Pandey RM, Sarkar C. Dystrophinopathy diagnosis made easy: skin biopsy, an emerging novel tool. *J Child Neurol.* 2014 Apr;29(4):469-74. doi: 10.1177/0883073813482769. Epub 2013 Apr 4. PubMed PMID: 23562947.

Dystrophinopathies are diagnosed by genetic studies and muscle biopsy. Most centers have multiplex polymerase chain reaction facilities diagnosing 65% to 70% of dystrophinopathy cases. Muscle biopsy is a time-consuming, invasive procedure whereas skin biopsy is a simple procedure done under local anesthesia. The current study evaluated the diagnostic accuracy of skin biopsy in dystrophinopathy. Overall, 119 confirmed cases of muscular dystrophy (111 males and 8 females) were included in the final analysis, of which 100 (all males) were dystrophinopathy. Skin biopsy diagnosed dystrophinopathy in suspected muscular dystrophy patients with a sensitivity of 98% (92.3%-99.7%), specificity of 99% (93.7%-99.9%), positive predictive value of 94.7% (71.9%-99.7%), and negative predictive value of 90% (66.9%-98.2%). Skin biopsy can be used for screening dystrophinopathy in muscular dystrophy patients (high sensitivity and positive predictive value). It being a simple and minimally invasive procedure, histopathologic and molecular markers of disease progression and response to novel treatment options can be assessed serially.

PMID: 23562947 [PubMed - in process]

20: Chawla B, Khurana S, Sen S, Sharma S. Clinical misdiagnosis of retinoblastoma in Indian children. *Br J Ophthalmol.* 2014 Apr;98(4):488-93. doi: 10.1136/bjophthalmol-2013-304321. Epub 2014 Jan 23. PubMed PMID: 24457360.

AIM: To determine the rate of clinical misdiagnosis in paediatric patients who were enucleated for retinoblastoma and report the clinicopathological features of cases that were misdiagnosed.

METHODS: Retrospective review of medical records of children who underwent a primary enucleation for advanced retinoblastoma was done. In all cases, the diagnosis of retinoblastoma was made on the basis of clinical presentation and imaging modalities. Clinicopathological features of eyes with discordant clinical and histopathological diagnosis were studied in detail.

RESULTS: Of 280 eyes (280 patients) that were enucleated over a 4-year period, histopathological diagnosis was consistent with retinoblastoma in 276 (98.6%)

eyes. In 4 (1.4%) eyes, clinical and histopathological diagnoses were discordant. Histopathological features in misdiagnosed cases included one case each of granulomatous endophthalmitis, retinal astrocytoma, Coats' disease and persistent hyperplastic primary vitreous.

CONCLUSIONS: To the best of our knowledge, this is the first study to examine the rate of clinical misdiagnosis of retinoblastoma from South Asia. Despite the use of modern preoperative imaging modalities including MRI scans, benign lesions in end-stage conditions simulated retinoblastoma, resulting in potentially avoidable enucleation.

PMID: 24457360 [PubMed - indexed for MEDLINE]

21: Chourasia BK, Chaudhry R, Malhotra P. Delineation of immunodominant and cytoadherence segment(s) of *Mycoplasma pneumoniae* P1 gene. *BMC Microbiol.* 2014 Apr 28;14:108. doi: 10.1186/1471-2180-14-108. PubMed PMID: 24774062; PubMed Central PMCID: PMC4021176.

BACKGROUND: Adhesion of *Mycoplasma pneumoniae* (*M. pneumoniae*) to host epithelial cells requires several adhesin proteins like P1, P30 and P116. Among these proteins, P1 protein has been identified as one of the major adhesin and immunogenic protein present on the attachment organelle of *M. pneumoniae*. In the present study, we scanned the entire sequence of *M. pneumoniae* P1 protein to identify the immunodominant and cytoadherence region(s). *M. pneumoniae* P1 gene was synthesized in four segments replacing all the UGA codons to UGG codons. Each of the four purified P1 protein fragment was analyzed for its immunogenicity with anti-*M. pneumoniae* M129 antibodies (Pab M129) and sera of *M. pneumoniae* infected patients by western blotting and ELISA. Antibodies were produced against all the P1 protein fragments and these antibodies were used for *M. pneumoniae* adhesion, *M. pneumoniae* adhesion inhibition and *M. pneumoniae* surface exposure assays using HEp-2 cells lines.

RESULTS: Our results show that the immunodominant regions are distributed throughout the entire length of P1 protein, while only the N- and C- terminal region(s) of P1 protein are surface exposed and block cytoadhesion to HEp-2 cells, while antibodies to two middle fragments failed to block cytoadhesion.

CONCLUSIONS: These results have important implications in designing strategies to block the attachment of *M. pneumoniae* to epithelial cells, thus preventing the development of atypical pneumonia.

PMCID: PMC4021176

PMID: 24774062 [PubMed - in process]

22: Das RR, Singh M. Oral zinc for the common cold. *JAMA.* 2014 Apr 9;311(14):1440-1. doi: 10.1001/jama.2014.1404. PubMed PMID: 24715076.

CLINICAL QUESTION: Is oral zinc associated with a shorter duration, decreased severity, and reduced incidence of the common cold compared with placebo?

BOTTOM LINE: When initiated within 24 hours of symptom onset, oral zinc is associated with a shorter duration of the common cold in healthy people. However, there is no association between oral zinc and symptom severity, and the prevalence of adverse effects with zinc lozenges is high. Given the high heterogeneity of data, these results should be interpreted with caution. Used prophylactically, oral zinc is associated with a reduced cold incidence in children. Prophylactic use has not been studied in adults.

PMID: 24715076 [PubMed - indexed for MEDLINE]

23: Dawman L, Kabra SK. Kawasaki disease: unusual clinical manifestations. *Indian J Pediatr.* 2014 Apr;81(4):325-7. doi: 10.1007/s12098-014-1397-4. Epub 2014 Mar 16. PubMed PMID: 24633902.

PMID: 24633902 [PubMed - in process]

24: Dogra PN, Saini AK, Singh P, Bora G, Nayak B. Extraperitoneal robot-assisted laparoscopic radical prostatectomy: Initial experience. *Urol Ann.* 2014 Apr;6(2):130-4. doi: 10.4103/0974-7796.130555. PubMed PMID: 24833824; PubMed Central PMCID: PMC4021652.

OBJECTIVES: To report our initial experience and technique of performing robot-assisted laparoscopic radical prostatectomy (RALP) with the extraperitoneal approach.

MATERIALS AND METHODS: Twenty-seven patients, between September 2010 to January 2012, were included in the study. All patients underwent extraperitoneal robot-assisted radical prostatectomy. Patients were placed supine with only 10-15(0) Trendelenburg tilt. The extraperitoneal space was developed behind the posterior rectus sheath. A five-port technique was used. After incision of endopelvic fascia and ligation of the deep venous complex, the rest of the procedure proceeded along the lines of the transperitoneal approach.

RESULTS: The mean patient age, prostate size and Gleason score were 67 ± 1.8 years, 45 ± 9.55 g and 6, respectively. The mean prostate-specific antigen (PSA) was 6.50 ng/mL. The mean time required for creating extraperitoneal space, docking of robot and console time were 22, 7 and 94 min, respectively. The mean time to resume full oral feeds was 22 ± 3.45 h. There were no conversions from extraperitoneal to transperitoneal or open surgery in our series. Pathological stage was pT1, pT2a and pT3b in 11 (40.74%), 14 (51.85%) and two (7.4%) patients, respectively. Two patients had positive surgical margins and two had biochemical recurrence at the last follow-up. Our mean follow-up was 12 ± 3.30 (2-17) months. The overall continence rate was 83.33% and 92.4% at 6 and 12 months, respectively.

CONCLUSIONS: Extraperitoneal RALP is an efficacious, minimally invasive approach for patients with localized carcinoma of the prostate.

PMCID: PMC4021652

PMID: 24833824 [PubMed]

25: Dua R, Rawat J. Diffuse alveolar hemorrhage in a patient of rheumatoid arthritis. *Lung India.* 2014 Apr;31(2):194-5. doi: 10.4103/0970-2113.129899. PubMed PMID: 24778495; PubMed Central PMCID: PMC3999692.

PMCID: PMC3999692

PMID: 24778495 [PubMed]

26: Dutta P, Gupta V, Bypareddy R. Recurrent endophthalmitis following a scleral fixated intraocular lens in a glaucoma patient. *Indian J Ophthalmol.* 2014 Apr;62(4):522. doi: 10.4103/0301-4738.111193. PubMed PMID: 23619495; PubMed Central PMCID: PMC4064244.

PMCID: PMC4064244

PMID: 23619495 [PubMed - in process]

27: Elhence A, Jalan D, Talreja H. Fractures of the posterior wall of the acetabulum: Treatment using internal fixation of two parallel reconstruction plates. *Injury.* 2014 Apr 16. pii: S0020-1383(14)00181-8. doi: 10.1016/j.injury.2014.04.013. [Epub ahead of print] PubMed PMID: 24815375.

PMID: 24815375 [PubMed - as supplied by publisher]

28: Gandhi AK, Sharma DN, Rath GK. Concurrent chemoradiation for carcinoma of

cervix: What lies beyond? J Cancer Res Ther. 2014 Apr-Jun;10(2):227-8. doi: 10.4103/0973-1482.136537. PubMed PMID: 25022369.

PMID: 25022369 [PubMed - in process]

29: Garg MK, Tandon N, Marwaha RK, Singh Y. Evaluation of surrogate markers for insulin resistance for defining metabolic syndrome in urban Indian adolescents. Indian Pediatr. 2014 Apr;51(4):279-84. PubMed PMID: 24825264.

OBJECTIVE: To compare parameters of insulin resistance, with special reference to McAuley index, in urban Indian adolescents, and to establish their cut-off values for defining metabolic syndrome.

DESIGN: Cross-sectional study.

SETTING: Schools located in four different geographical zones of Delhi, India.

PARTICIPANTS: 695 apparently healthy adolescents grouped as normal weight (298), overweight (205) and obese (192).

OUTCOME MEASURES: Cut-off point for indices of insulin resistance was assessed by fasting insulin, insulin glucose ratio, and other methods (HOMA model, QUICKI, McAuley index) to define metabolic syndrome.

RESULTS: The McAuley index increased progressively from normal weight to obese adolescents in both sexes. McAuley index was significantly lower in adolescents with metabolic syndrome (5.36 ± 1.28 vs. 7.05 ± 1.88 ; $P < 0.001$). McAuley index had the highest area under curve of receiver operator characteristics [0.82 (0.02)] as compared to other indices of insulin resistance. McAuley index of 6.23 had the highest specificity (88%) with sensitivity of 63.3% for diagnosing metabolic syndrome, whereas insulin glucose ratio had the highest sensitivity (79.7%) but low (55.5%) specificity. McAuley index was negatively correlated with height ($r = -0.257$, $P < 0.001$), weight ($r = -0.537$, $P < 0.001$), body mass index ($r = -0.579$, $P < 0.001$), waist circumference ($r = -0.542$, $p < 0.001$), and waist hip ratio ($r = -0.268$, $P < 0.001$).

CONCLUSIONS: Among various parameters of insulin resistance, McAuley index had the highest specificity, and insulin glucose ratio had the highest sensitivity in diagnosing metabolic syndrome in urban Indian adolescents.

PMID: 24825264 [PubMed - in process]

30: Garg R, Bhatnagar A, Bhatnagar S, Mishra S. Incidental finding of organized thrombus in right inferior pulmonary vein extending in left atrium in the patient scheduled for esophagectomy: What should an anesthesiologist look for? J Anaesthesiol Clin Pharmacol. 2014 Apr;30(2):301-2. doi: 10.4103/0970-9185.130133. PubMed PMID: 24803790; PubMed Central PMCID: PMC4009672.

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PMID: 24803790 [PubMed]

31: Garg R. Anesthesiologists, Anesthetics, and Cancer metastasis. J Anaesthesiol Clin Pharmacol. 2014 Apr;30(2):174-6. PubMed PMID: 24803752; PubMed Central PMCID: PMC4009634.

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PMID: 24803752 [PubMed]

32: Gaur P, Singh AK, Shukla NK, Das SN. Inter-relation of Th1, Th2, Th17 and Treg cytokines in oral cancer patients and their clinical significance. Hum Immunol. 2014 Apr;75(4):330-7. doi: 10.1016/j.humimm.2014.01.011. Epub 2014 Jan 30. PubMed PMID: 24486578.

BACKGROUND: Altered cytokine production can lead to immune dysfunction in cancer

patients. Hence, we investigated the cytokine balance in oral squamous cell carcinoma (OSCC) patients and their significance in providing new therapeutic insights.

METHODS: We quantified Th17 (IL17A), Treg (TGF β 1), Th1 (IL2, IFN γ) and Th2 (IL4, IL10) like cytokines in the sera of 78 cases and 39 controls by ELISA. The intracellular expression of these cytokines was analyzed in 10 subjects from each group by flow cytometry.

RESULTS: Serum levels of IL17A, TGF β 1, IL4 and IL10 were significantly higher while IL2 and IFN γ were relatively lower in patients as compared to controls. TGF β 1 ($r=0.55$), IL4 ($r=0.75$) and IL10 ($r=0.80$) significantly ($P<0.0001$) correlated with disease progression and their elevated levels showed increased odd ratios of approximately 18, 14 and 37, respectively. IL17A appeared as a risk factor (OR=2.21, 95% CI=0.89-5.42) although statistically insignificant. The levels neither correlated with disease progression nor with TGF β 1, IL4 and IL10 but showed positive association with IL2 ($r=0.51$, $P<0.0001$) and IFN γ ($r=0.24$). Flow cytometry data also showed similar trend.

CONCLUSIONS: We reported a distinct TGF β 1 and Th2 (IL4, IL10) polarization with a borderline elevation of IL17A while, a suppression of Th1 (IL2, IFN γ) cytokines in OSCC patients.

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PMID: 24486578 [PubMed - in process]

33: Gautam M, Prasoon P, Kumar R, Singh A, Shrimal P, Ray SB. Direct intrawound administration of dimethylsulphoxide relieves acute pain in rats. *Int Wound J*. 2014 Apr 21. doi: 10.1111/iwj.12280. [Epub ahead of print] PubMed PMID: 24750992.

Wounds associated with injuries such as burns can produce moderate to severe pain. Besides causing distress to the patient, unrelieved pain could delay healing owing to stress-related problems. Thus, pain needs to be treated as early as possible after injury. It was hypothesised that local treatment of wounds with appropriate analgesic drugs could attenuate pain. HOE 140, a bradykinin receptor antagonist, reduced acute inflammatory pain in rats after intrawound administration. In this study, the analgesic effect of dimethylsulphoxide (DMSO) was investigated in a similar hind-paw incision model in rats. An extremely small quantity (10 μ l) of 100% DMSO was administered into the incision site just before closure of the wound. It persistently attenuated guarding behaviour in rats over a period of 3 days without affecting thermal hyperalgesia or allodynia. Accumulated evidence indicates that guarding is equivalent to pain at rest in humans. The possible mechanisms of the analgesic effect could be inhibition of C group of peripheral nerve fibres or even free radical scavenging. Healing of the wound was found to be normal at the end of the study period. In conclusion, DMSO could be useful in the treatment of acute pain resulting from tissue injuries such as burns.

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PMID: 24750992 [PubMed - as supplied by publisher]

34: Gogia V, Gupta S, Titiyal JS, Panda A, Pandey RM, Tandon R. A preliminary descriptive analysis of Corneal Transplant Registry of National Eye Bank in India. *Cont Lens Anterior Eye*. 2014 Apr;37(2):111-5. doi: 10.1016/j.clae.2013.08.155. Epub 2013 Sep 22. PubMed PMID: 24064181.

PURPOSE: To describe and analyze the Corneal Transplant Registry of National Eye Bank and also evaluate graft outcomes in India.

METHODS: All patients who underwent corneal transplant at our center within six months of setting up of Corneal Transplant Registry and installation of database at National Eye Bank were included in the study. The established database was analyzed for utilization, donor and recipient details and graft outcomes. Outcome was assessed at the end of one year follow up. The influence of various donor and recipient factors affecting outcome were evaluated. Visual outcome was analyzed in terms of shift in visual handicap category. Statistical tests like analysis of variance, Kruskal-Wallis test and Chi square tests were applied for determination of clinical significance wherever required.

RESULTS: 326 corneas were received from 168 donors; of these, 234 (71.7%) were utilized for transplantation. Out of 177 patients with adequate (one year) follow up (75.6% patients), optical corneal replacement was performed in 106 patients and therapeutic keratoplasty in 71.78% (82/106) patients in the optical group retained clear grafts at the end of follow up. 59.7% (49 of 82) of patients who attained clear grafts belonged to visual disability category 3 or worse pre-operatively. 59.1% of these achieved BCVA of $\geq 6/60$ at the end of follow up; thus shifting up their visual handicap category. Primary graft failure was found to be associated with full thickness keratoplasty and not with lamellar procedures ($p < 0.05$) and occurred in 4.2% patients (5) with optical corneal replacement whereas 7.5% patients (8) developed secondary graft failure. Age of donor ($p = 0.54$), death enucleation time ($p > 0.05$), cause of donor death ($p = 0.15$), type of surgical procedures ($p = 0.538$) and indication for surgery did not have any significant effect on outcome. 76% patients who underwent therapeutic graft achieved elimination of corneal infection.

CONCLUSIONS: The development of corneal graft registry established an effective means to evaluate our corneal transplantation services. Outcomes of sight restoring corneal transplants performed were comparable to results of graft registries from developed nations.

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PMID: 24064181 [PubMed - in process]

35: Goss PE, Strasser-Weippl K, Lee-Bychkovsky BL, Fan L, Li J, Chavarri-Guerra Y, Liedke PE, Pramesh CS, Badovinac-Crnjevic T, Sheikine Y, Chen Z, Qiao YL, Shao Z, Wu YL, Fan D, Chow LW, Wang J, Zhang Q, Yu S, Shen G, He J, Purushotham A, Sullivan R, Badwe R, Banavali SD, Nair R, Kumar L, Parikh P, Subramanian S, Chaturvedi P, Iyer S, Shastri SS, Digumarti R, Soto-Perez-de-Celis E, Adilbay D, Semiglazov V, Orlov S, Kaidarova D, Tsimafeyeu I, Tatishchev S, Danishevskiy KD, Hurlbert M, Vail C, St Louis J, Chan A. Challenges to effective cancer control in China, India, and Russia. *Lancet Oncol.* 2014 Apr;15(5):489-538. doi: 10.1016/S1470-2045(14)70029-4. PubMed PMID: 24731404.

Cancer is one of the major non-communicable diseases posing a threat to world health. Unfortunately, improvements in socioeconomic conditions are usually associated with increased cancer incidence. In this Commission, we focus on China, India, and Russia, which share rapidly rising cancer incidence and have cancer mortality rates that are nearly twice as high as in the UK or the USA, vast geographies, growing economies, ageing populations, increasingly westernised lifestyles, relatively disenfranchised subpopulations, serious contamination of the environment, and uncontrolled cancer-causing communicable infections. We describe the overall state of health and cancer control in each country and additional specific issues for consideration: for China, access to care, contamination of the environment, and cancer fatalism and traditional medicine; for India, affordability of care, provision of adequate health personnel, and sociocultural barriers to cancer control; and for Russia, monitoring of the

burden of cancer, societal attitudes towards cancer prevention, effects of inequitable treatment and access to medicine, and a need for improved international engagement.

36: Goyal JP, Makwana AM. Comparison of Clinical Profile between *P. vivax* and *P. falciparum* Malaria in Children: A Tertiary Care Centre Perspective from India. *Malar Res Treat.* 2014;2014:132672. doi: 10.1155/2014/132672. Epub 2014 Apr 9. PubMed PMID: 24812588; PubMed Central PMCID: PMC4000636.

Background. Malaria is a one of the leading causes of morbidity and mortality in tropical countries. *Plasmodium vivax* (*P. vivax*) is usually thought to be causing benign malaria with low incidence of complications as compared to *Plasmodium falciparum* (*P. falciparum*). Methods. This retrospective observational study included malaria patients who were admitted to K.T. Children Hospital and P.D.U. Government Medical College, Rajkot, a tertiary care teaching hospital, Gujarat, western India, during the period January 2012 to December 2012. Inclusion criteria were patients in whom either *P. falciparum* or *P. vivax* was positive on rapid malaria antigen test and peripheral blood smear. Patients showing mixed infections were excluded from study. Results. A total of 79 subjects (mean age 5.4 ± 3.6 years) were included in the study. It consisted of 47 *P. vivax* and 32 *P. falciparum* cases. The *P. vivax* cases consisted of 33 (70.2%) males and 11 (19.8%) females while *P. falciparum* cases consisted of 14 (43.8%) males and 18 (56.2%) females. One patient of each *P. vivax* and *P. falciparum* expired. There was no statistical significant difference found between complications such as anemia, thrombocytopenia, liver and renal dysfunction, ARDS, and cerebral malaria between *P. vivax* and *P. falciparum*. Conclusion. We conclude that *P. vivax* monoinfection tends to have as similar course and complications as compared to malaria due to *P. falciparum* monoinfection.

PMCID: PMC4000636

PMID: 24812588 [PubMed]

37: Gupta A, Xess I, Sharma SC, Mallick S. Invasive rhinosinusitis by *Exserohilum rostratum* in an immunocompetent child. *BMJ Case Rep.* 2014 Apr 7;2014. pii: bcr2013202380. doi: 10.1136/bcr-2013-202380. PubMed PMID: 24711469.

Exserohilum is a saprophytic fungal pathogen responsible for a wide spectrum of infections in humans. It causes life-threatening acute invasive infections in the immunocompromised individuals, particularly those having haematological disorders. We report a proven case of chronic invasive rhinosinusitis with orbital involvement by *Exserohilum rostratum* in an immunocompetent child. The patient responded well to endoscopic sinus surgery followed by oral itraconazole. An aggressive surgical approach is required for improving the outcome of patients with invasive infections. A microbiological diagnosis may help in deciding the systemic antifungal agent in fungal rhinosinusitis.

PMID: 24711469 [PubMed - in process]

38: Gupta A, Dadheech G, Yadav D, Sharma P, Gautam S. Metabolic issues in schizophrenic patients receiving antipsychotic treatment. *Indian J Clin Biochem.* 2014 Apr;29(2):196-201. doi: 10.1007/s12291-013-0415-z. Epub 2014 Jan 23. PubMed PMID: 24757302; PubMed Central PMCID: PMC3990788.

Schizophrenia is a psychotic disorder with a complex pathophysiology and requires treatment that includes long term administration of antipsychotics that is said to be associated with metabolic syndrome. This study was designed to evaluate the impact of seven different antipsychotics prescribed to schizophrenic patients, on development of metabolic syndrome in the patients. A total of 210 patients with schizophrenia (30 patients in each drug therapy group) were recruited according to ICD-10 criteria and were assigned to receive the drug for 16 weeks.

Measurement of anthropometric (body weight, waist circumference, blood pressure) and biochemical parameters (glucose, insulin, HOMA-IR, triglycerides, LDL, HDL) was done and the patients were subjected to ATP-III defined criteria for metabolic syndrome. Patients undergoing treatment with olanzapine were more prone to metabolic syndrome as the drug induces weight gain after 16 weeks of treatment. It also induces dyslipidemia ($P < 0.001$) and hyperglycemia ($P < 0.01$). Clozapine was found to be second most potent drug in inducing metabolic syndrome as the weight in clozapine treated patients increased after 16 weeks, along with a significant increase in glycemc ($P < 0.001$) and lipid parameters ($P < 0.01$). Aripriazole and amisulphride are comparatively safer drugs as their role in inducing metabolic abnormalities in schizophrenic patients was insignificant, although the impact of long term administration of these drugs needs to be explored. It is clear from the study that antipsychotic treatment induces metabolic syndrome so, it becomes important that the metabolic and cardiovascular risk factors should be surveillance regularly in schizophrenic patients undergoing antipsychotic treatment.

PMCID: PMC3990788 [Available on 2015/4/1]

PMID: 24757302 [PubMed]

39: Gupta PP, Thacker AK, Haider J, Dhawan S, Pandey N, Pandey AK. Assessment of topiramate's efficacy and safety in epilepsy. *J Neurosci Rural Pract.* 2014 Apr;5(2):144-8. doi: 10.4103/0976-3147.131657. PubMed PMID: 24966552; PubMed Central PMCID: PMC4064179.

OBJECTIVE: To study the significance of topiramate (TPM) addition on seizure control in treatment of epilepsy.

DESIGN: A prospective open label add-on trial of TPM addition in patients with epilepsy was done. The events of baseline phase of 12 weeks followed by titration and maintenance phases were recorded. Assessment of the number of seizure and emergent adverse effects was done by a monthly visit for each case.

MAIN OUTCOME MEASURES: Reduction of more than 50% mean seizure frequency or response ratio of 0.33 was taken as the criteria for responders.

STATISTICAL ANALYSIS: Normal Z-test for significance of differences between two proportions and Chi-square test for presence of association was applied and mean age, median duration, sex ratio, percentage prevalence were depicted.

RESULTS: Significant responses to TPM in both partial as well as generalized seizures were observed ($Z = 6.66$, $P < 0.001$ and $Z = 4.185$, $P < 0.01$). The effect was more pronounced in patients with partial seizures. However, the overall response was highly significant ($Z = 7.839$, $P < 0.001$). The best response was noted at the dose of 200-300 mg/day ($Z = 6.708$, $P < 0.001$). More than 35% cases of partial and generalized seizures reported more than 75% reduction levels. The drug was well tolerated in more than 65% cases for side effects on psychosis, giddiness, and anorexia. Mild side effects were seen only in about less than 35% cases.

CONCLUSIONS: TPM was found as a significantly effective add-on anticonvulsant with some limitation or mild side effects.

PMCID: PMC4064179

PMID: 24966552 [PubMed]

40: Haldar R, Samanta S, Singla A. Intractable Polyuria Mimicking Diabetes Insipidus-Source Traced to Vecuronium Infusion. *Am J Ther.* 2014 Apr 14. [Epub ahead of print] PubMed PMID: 24736047.

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2Department of Anaesthesia and Critical Care Medicine (Trauma), All India Institute of Medical Sciences, New Delhi, India; and 3Department of Anaesthesia and Intensive Care, Post Graduate Institute of Medical Education and Research, Chandigarh, India.

Continuous infusion of vecuronium is a commonly used technique for patients requiring prolonged neuromuscular blockade for mechanical ventilation. As compared with older neuromuscular blocking agents, it confers the advantages of rapid excretion and intermediate duration of action. Prolongation of neuromuscular blockade and muscle weakness are the known complications of continuous vecuronium infusion. This report attempts to describe polyuria, as a hitherto unknown complication of vecuronium infusion, which can occur due to the mannitol present in commercially available preparation of vecuronium bromide.

PMID: 24736047 [PubMed - as supplied by publisher]

41: Halder A, Jain M, Chaudhary I, Kumar G, Das T, Gupta YK. Dark-coloured semen in nonobstructive azoospermia: a report of four cases. *Andrologia*. 2014 Apr;46(3):316-21. doi: 10.1111/and.12078. Epub 2013 Feb 28. PubMed PMID: 23445433.

Dark-coloured semen is rarely observed in men with nonobstructive azoospermia in absence of genital tract bleeding. Dark-coloured semen is also observed rarely in men with spinal cord injury with or without genital tract bleeding. However, this condition has not been reported in the literature in absence of genital tract bleeding or spinal cord injury. Here, we report men with nonobstructive azoospermia with dark-coloured semen and without genital tract bleeding or spinal cord injury. The study included four subjects with dark-coloured semen. All the samples first investigated for the presence of red blood cells as well as haemoglobin. All the cases were examined in details with seminal, hormonal and genetic parameters. In addition, an elemental electron microscopy and inductively coupled plasma-atomic emission spectrometry evaluation for heavy metals was performed. The semen parameters showed normal volume, pH, leucocyte count and azoospermia or oligozoospermia. Dark-coloured semen specimens contained neither red blood cells nor haeme pigment. Electron microscopy showed presence of platinum in all the cases, whereas inductively coupled plasma-atomic emission spectrometry revealed increased levels of lead, manganese and nickel in serum as compared to controls. The results indicate dark-coloured semen may be linked with heavy metals found in seminal cells.

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PMID: 23445433 [PubMed - in process]

42: Hari P, Ramakrishnan L, Gupta R, Kumar R, Bagga A. Cystatin C-based glomerular filtration rate estimating equations in early chronic kidney disease. *Indian Pediatr*. 2014 Apr;51(4):273-7. PubMed PMID: 24825263.

OBJECTIVE: To compare performance of combined creatinine and cystatin C-based equation with equations based on either cystatin C or creatinine alone, in early chronic kidney disease.

DESIGN: Diagnostic accuracy study.

SETTING: Tertiary-care hospital.

PATIENTS: One hundred children with chronic kidney disease who underwent 99mTc diethylenetriamine pentaacetic acid (DTPA) glomerular filtration rate measurement.

METHODS: Estimating equations for glomerular filtration rate (GFR) based on serum cystatin C alone and in combination with serum creatinine were generated using regression analyses. These equations and the creatinine-based equation [0.42 x

height/creatinine] were validated in 42 children with glomerular filtration rate between 60 and 90 mL/min/1.73 m². Bias, precision and accuracy of estimating equations using DTPA glomerular filtration rate as gold standard.

RESULTS: Cystatin C-based equation (GFR=96.9 - 30.4 x cystatin) overestimated while the combined cystatin C-and creatinine-based equation [GFR=11.45 x (height/creatinine) 0.356 x (1/cystatin) 0.188] underestimated the measured GFR. Cystatin C-based equation had less bias (1.9 vs. 12.4 mL/min/1.73 m²), and higher precision (13.1 vs. 25.6 mL/min/1.73 m²) and accuracy (92.1% vs. 75.7%) than creatinine-based equation. The combined cystatin C and creatinine equation had bias (-1.4 mL/min/1.73 m²) precision (15.2 mL/min/1.73 m²) and accuracy (91.2%) similar to cystatin C-based equation.

CONCLUSIONS: Cystatin C-based equation has a better performance in estimating glomerular filtration rate than creatinine-based equation in children with early chronic kidney disease. Addition of creatinine equation does not improve the performance of the cystatin C-based equation.

PMID: 24825263 [PubMed - in process]

43: Hasiija N, Hazarika AJ, Sokhal N, Kumar S. Tissue necrosis of hand caused by phenytoin extravasation: An unusual occurrence. Saudi J Anaesth. 2014 Apr;8(2):309-10. doi: 10.4103/1658-354X.130766. PubMed PMID: 24843360; PubMed Central PMCID: PMC4024704.

PMCID: PMC4024704

PMID: 24843360 [PubMed]

44: Jacob TG, Raghav R, Kumar A, Garg PK, Roy TS. Duration of injury correlates with necrosis in caerulein-induced experimental acute pancreatitis: implications for pathophysiology. Int J Exp Pathol. 2014 Jun;95(3):199-208. doi: 10.1111/iep.12081. Epub 2014 Apr 25. PubMed PMID: 24761825.

Pancreatic acinar cell necrosis is indicative of severe pancreatitis and the degree of necrosis is an index of its outcome. We studied whether the dose and duration of injury correlates with severity, particularly in terms of necrosis, in caerulein-induced acute pancreatitis (AP) in Swiss albino mice. In addition to control group 1 (G1), groups 2 and 3 received four injections of caerulein every hour but were sacrificed at five hours (G2) and nine hours (G3) respectively, and group 4 received eight injections and was sacrificed at nine hours (G4). The severity of pancreatitis was assessed histopathologically and biochemically. The histopathological scores of pancreatitis in groups 3 and 4 were significantly higher than in groups 1 and 2 (4 vs. 1, 4 vs. 2, 3 vs. 1, 3 vs. 2; P < 0.05). TUNEL-positive apoptotic cells were significantly higher in groups 2 and 3 compared with groups 1 and 4 (P < 0.05). Necrosis was significantly more in group 4 than other groups (37.49% (4.68) vs. 19.97% (1.60) in G2; 20.36% (1.56) in G3; P = 0.006 for G 2 vs. 4 and P = 0.019 for G 3 vs. 4). Electron microscopy revealed numerous autophagosomes in groups 2 and 3 and mitochondrial damage and necrosis in group 4. The pancreatic and pulmonary myeloperoxidase activity in group 4 was significantly higher than that in the other groups (P < 0.01). Hence, severity of pancreatitis is a function of the dose of injurious agent, while inflammation is both dose and duration dependent, which may also explain the wide spectrum of severity of AP seen in clinical practice.

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PMID: 24761825 [PubMed - indexed for MEDLINE]

45: Jain S, Sharma P, Dhull VS, Bal C, Kumar R. Lymphoma as a second malignancy in a patient with neuroendocrine tumor: mimicking dedifferentiation on

dual-tracer PET/CT with 68Ga-DOTANOC and 18F-FDG. Clin Nucl Med. 2014 Apr;39(4):358-9. doi: 10.1097/RLU.0b013e31828e98c5. PubMed PMID: 24217543.

Neuroendocrine tumors (NETs) are rare tumors which express somatostatin receptors (SSTRs). We here present a case of a 50-year-old female patient with metastatic bronchial carcinoid. She underwent 68Ga-DOTANOC PET/CT and 18F-FDG PET/CT which suggested a diagnosis of poorly differentiated NET. Biopsy of the lesion, however, revealed a second malignancy in the form of diffuse large B-cell lymphoma. Thus, very rarely, other primary tumors can mimic NETs on dual-tracer PET/CT, and biopsy is advised in doubtful cases.

PMID: 24217543 [PubMed - in process]

46: Jain TK, Karunanithi S, Dhull VS, Roy SG, Kumar R. Carcinoma of unknown primary of neuroendocrine origin: Accurate detection of primary with (68)Ga-labelled [1, 4, 7, 10-tetraazacyclododecane-1, 4, 7, 10-tetraacetic acid]-1-NaI3-Octreotide positron emission tomography/computed tomography enterography. Indian J Nucl Med. 2014 Apr;29(2):122-3. doi: 10.4103/0972-3919.130320. PubMed PMID: 24761071; PubMed Central PMCID: PMC3996769.

(68)Ga-labelled [1, 4, 7, 10-tetraazacyclododecane-1, 4, 7, 10-tetraacetic acid]-1-NaI3-Octreotide ((68)Ga-DOTANOC) positron emission tomography/computed tomography (PET/CT) is an excellent modality in patients with carcinoma of unknown primary of neuroendocrine origin. Most of the primary lesions are located in mid gut region where the lesions have poor resolution due to undistended and overlapping intestinal loops and motility-related artifacts. Although PET/CT enteroclysis, enterography and colonography have been described with (18)F-fluorodeoxyglucose, PET/CT enterography with (68)Ga-DOTANOC has not been described in the literature. Here, we present a case where (68)Ga-DOTANOC PET/CT enterography was useful in identifying the primary neuroendocrine tumor lesion in small intestine with accurate delineation.

PMCID: PMC3996769

PMID: 24761071 [PubMed]

47: Jalwal GK, Rajagopalan V, Bindra A, Rath GP, Goyal K, Kumar A, Gamanagatti S. Percutaneous retrieval of malpositioned, kinked and unraveled guide wire under fluoroscopic guidance during central venous cannulation. J Anaesthesiol Clin Pharmacol. 2014 Apr;30(2):267-9. doi: 10.4103/0970-9185.130061. PubMed PMID: 24803771; PubMed Central PMCID: PMC4009653.

The placement of central venous catheter using Seldinger's technique, remains a commonly performed procedure with its own risks and benefits. Various complications have been reported with the use of guide wire as well as catheter. We report a unique problem during subclavian vein cannulation due to guidewire malposition which led to its kinking and difficult retrieval requiring removal in fluoroscopy suit. The probable mechanism of guide wire entrapment and possible bedside management of similar problems is described.

PMCID: PMC4009653

PMID: 24803771 [PubMed]

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Comment on

Am J Emerg Med. 2013 Dec;31(12):1634-7.

PMID: 24445224 [PubMed - indexed for MEDLINE]

49: Jha AK, Malik V, Hote M. Minimally invasive cardiac surgery and transesophageal echocardiography. *Ann Card Anaesth.* 2014 Apr-Jun;17(2):125-32. doi: 10.4103/0971-9784.129844. PubMed PMID: 24732611.

Improved cosmetic appearance, reduced pain and duration of post-operative stay have intensified the popularity of minimally invasive cardiac surgery (MICS); however, the increased risk of stroke remains a concern. In conventional cardiac surgery, surgeons can visualize and feel the cardiac structures directly, which is not possible with MICS. Transesophageal echocardiography (TEE) is essential during MICS in detecting problems that require immediate correction. Comprehensive evaluation of the cardiac structures and function helps in the confirmation of not only the definitive diagnosis, but also the success of surgical treatment. Venous and aortic cannulations are not under the direct vision of the surgeon and appropriate positioning of the cannulae is not possible during MICS without the aid of TEE. Intra-operative TEE helps in the navigation of the guide wire and correct placement of the cannulae and allows real-time assessment of valvular pathologies, ventricular filling, ventricular function, intracardiac air, weaning from cardiopulmonary bypass and adequacy of the surgical procedure. Early detection of perioperative complications by TEE potentially enhances the post-operative outcome of patients managed with MICS.

PMID: 24732611 [PubMed - in process]

50: Jhanjee S. Evidence based psychosocial interventions in substance use. *Indian J Psychol Med.* 2014 Apr;36(2):112-8. doi: 10.4103/0253-7176.130960. Review. PubMed PMID: 24860208; PubMed Central PMCID: PMC4031575.

In recent years, there has been significant progress and expansion in the development of evidence-based psychosocial treatments for substance abuse and dependence. A literature review was undertaken using the several electronic databases (PubMed, Cochrane Database of systemic reviews and specific journals, which pertain to psychosocial issues in addictive disorders and guidelines on this topic). Overall psychosocial interventions have been found to be effective. Some interventions, such as cognitive behavior therapy, motivational interviewing and relapse prevention, appear to be effective across many drugs of abuse. Psychological treatment is more effective when prescribed with substitute prescribing than when medication or psychological treatment is used alone, particularly for opiate users. The evidence base for psychological treatment needs to be expanded and should also include research on optimal combinations of psychological therapies and any particular matching effects, if any. Psychological interventions are an essential part of the treatment regimen and efforts should be made to integrate evidence-based interventions in all substance use disorder treatment programs.

PMCID: PMC4031575

PMID: 24860208 [PubMed]

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Hypertrophic pachymeningitis is a rare inflammatory process that causes thickening of the dura mater. Most cases are idiopathic, but it can result from many inflammatory and infective conditions. We present a case of pachymeningitis of the cavernous sinus, the aetiology of which may have been dental.

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PMID: 24703382 [PubMed - in process]

52: Kakkar AK. GLP-1 receptor agonists and the risk of colorectal cancer. *Med Hypotheses*. 2014 Jun;82(6):796. doi: 10.1016/j.mehy.2014.03.028. Epub 2014 Apr 3. PubMed PMID: 24746383.

Comment on
Med Hypotheses. 2014 Mar;82(3):255-6.

PMID: 24746383 [PubMed - in process]

53: Kakkar AK, Dahiya N. Bedaquiline for the treatment of resistant tuberculosis: promises and pitfalls. *Tuberculosis (Edinb)*. 2014 Jul;94(4):357-62. doi: 10.1016/j.tube.2014.04.001. Epub 2014 Apr 18. PubMed PMID: 24841672.

Treatment of multidrug-resistant tuberculosis (MDR-TB) is hindered by limited efficacy and significant toxicity of second-line drugs. The need for new therapeutic options is critical to combat the global MDR-TB epidemic. Bedaquiline is a novel oral diarylquinoline approved by Food and Drug administration (FDA) for the treatment of adults with pulmonary MDR-TB on the basis of Phase IIb trial data under the provisions of the accelerated approval regulations for serious or life-threatening conditions. The FDA advisory committee members voted unanimously on efficacy data based on surrogate measures, however they were split on the issues of safety of bedaquiline. Main safety concerns include QT interval prolongation, hepatic related adverse events, and excess mortality in bedaquiline treated patients. While bedaquiline approval is a story of many firsts and certainly a welcome addition to the existing arsenal of anti-TB agents, a cautiously optimistic approach is required to assess the risk benefit profile of the drug. Acceleration of further Phase III trials and clinical studies is imperative, as is timely analysis of emerging data on the real world use of the drug. This mini review outlines the clinical pharmacology of bedaquiline highlighting the potential promises and challenges that implicate the risk benefit profile of drug.

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PMID: 24841672 [PubMed - in process]

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PMID: 24723597 [PubMed - indexed for MEDLINE]

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PMCID: PMC4024586
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Iodine deficiency (ID) is an endemic health problem in Kangra District, Himachal Pradesh (HP). ID in pregnant mothers leads to neonatal hypothyroidism (NH), mental retardation, deaf mutism, squint, dwarfism, spastic dysplasia, neurological defects and congenital anomalies. NH can be assessed by estimating the thyroid stimulating hormone (TSH) in cord blood samples. The present study was conducted with an objective to assess the prevalence of NH in district Kangra, HP. In district Kangra, all the hospitals providing obstetric services were enlisted. Three hospitals conducting more than 100 deliveries per year were selected randomly. A total of 613 umbilical cord blood samples of neonates were collected on filter papers and analyzed for TSH. TSH was estimated by enzyme-linked immunosorbent assay method. Neonates with TSH levels ≥ 20 mIU/l were recalled for reassessment of TSH for confirmation of NH. Prevalence of NH was found to be 4.4%. This finding suggests the need for the implementation of a neonatal screening program for early detection of children with ID.

PMID: 24755928 [PubMed - in process]

58: Kapil U, Kabra M, Sareen N, Khenduja P, Pande S. Iodine nutrition status amongst neonates in Kangra district, Himachal Pradesh. *J Trace Elem Med Biol.* 2014 Jul;28(3):351-3. doi: 10.1016/j.jtemb.2014.03.009. Epub 2014 Apr 5. PubMed PMID: 24797042.

Iodine deficiency (ID) is an endemic health problem in Kangra district, Himachal Pradesh (HP) state. ID leads to mental retardation, deaf mutism, squint, dwarfism, spastic diplegia, neurological defects and congenital anomalies. Iodine nutrition status amongst neonates can be assessed by estimating thyroid stimulating hormone (TSH). The present study was conducted with an objective to assess the iodine nutrition status amongst Neonates in Kangra district, HP. All of the hospitals in the district which provide obstetric services were enlisted, of which three were selected for this survey. A total of 613 umbilical cord blood samples of neonates were collected on filter paper and analyzed for TSH. WHO (2007) reported that that a $<3\%$ frequency of TSH concentrations above 5mIU/L in samples collected 3-4 days after birth indicates iodine sufficiency in a population. In our study we found that 73.4% of the neonates had TSH levels of more than 5mIU/l, thus indicating ID in the population studied. Iodine deficiency continues to be a public health problem in Kangra district, Himachal Pradesh.

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PMID: 24797042 [PubMed - in process]

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Preeclampsia (PE) is a pregnancy-related, potentially life threatening condition. The incidence of PE has increased in the past decade, which has been attributed to various predisposing factors. Abnormal placentation is central to the evolution of this disease process. However, the triggering factor for this is still unknown. Interestingly, intense research done in this arena has unveiled the names of some important biomolecules which play important role in the vasculogenesis of the early placenta, namely, vascular endothelial growth factor (VEGF) and placental growth factor (PlGF) and their antagonists, namely, soluble fms-like tyrosine kinase 1 (sFlt-1, also known as sVEGFR1), and soluble endoglin (sEng). Besides these, Renin Angiotensin System (RAS) was also implicated in this

disease process. The roles of immune factors, genetic factors have been stressed from time to time. More novel approaches made, have shed light on the upcoming biomolecules. All these endeavours are directed to diagnose PE as early as possible, which is a real challenge. Question remains whether a single set parameters could diagnose a disease entity which is as complex as PE. Therefore, it is imperative to design feasible, predictive test-set utilizing multiple biomarkers.

PMCID: PMC4064886

PMID: 24959436 [PubMed]

60: Kashyap S, Venkatesh P, Sen S, Khanduja S, Shrey D, Tinwala S, Garg S. Clinicopathologic characteristics of choroidal melanoma in a North Indian population: analysis of 10-year data. *Int Ophthalmol*. 2014 Apr;34(2):235-9. doi: 10.1007/s10792-013-9821-8. Epub 2013 Jul 4. PubMed PMID: 23824661.

To analyze the clinical and histopathological characteristics of choroidal melanomas undergoing enucleation at a tertiary care center in India and compare with data from other countries. A retrospective review of in-patient hospital records from 2001-2011. Patients undergoing enucleation with a clinical diagnosis of choroidal melanoma. A total of 80 eyes were enucleated for choroidal melanoma. The mean age of patients was 46 ± 13.1 years. Tumors with spindle cell morphology were the most common subtype. Necrotic tumors had a higher incidence of scleral invasion and orbital involvement compared to other cellular subtypes. The mean age at enucleation in Asian Indians is nearly a decade less than most other races. Predominance of spindle cell subtype is in contrast to findings of previous studies and could be partly related to the genetic and molecular expression of the melanocytes undergoing malignant transformation.

PMID: 23824661 [PubMed - in process]

61: Kayal S, Sharma A, Iqbal S, Tejomurtula T, Cyriac SL, Raina V. High-dose chemotherapy and autologous stem cell transplantation in multiple myeloma: a single institution experience at All India Institute of Medical Sciences, New Delhi, using non-cryopreserved peripheral blood stem cells. *Clin Lymphoma Myeloma Leuk*. 2014 Apr;14(2):140-7. doi: 10.1016/j.clml.2013.09.001. Epub 2013 Sep 28. PubMed PMID: 24342104.

BACKGROUND: Intravenous high-dose melphalan has a short half-life, and application of this single drug in MM transplant favors the use of stem cells without cryopreservation, for wider use in general and in resource-limited settings in particular.

PATIENTS AND METHODS: Ninety-two patients with MM were given high-dose melphalan and rescued with granulocyte colony stimulating factor (G-CSF) mobilized noncryopreserved autologous PBSC, in our hospital during the past 18 years. Stem cells were mobilized with 4 days of G-CSF, harvested (median CD34 dose, 2.9×10^6 /kg) and then stored at 4°C in a refrigerator for a median of 2 days (range, 1-5 days) before reinfusion.

RESULTS: Median time to neutrophil ($> 500/\text{mm}^3$) and platelet ($> 20,000/\text{mm}^3$) engraftment were 10 and 14 days respectively. There was no graft failure. Mucositis grade 3/4 was seen in 66 patients (72%). Transplant-related mortality at 100 days was 3.2%. The overall response to transplant was 88% and improvement compared with pretransplant status was seen in 48%. The median overall survival (OS) and progression-free survival (PFS) were 61.7 months and 35.4 months respectively; independent predictors of survival were Eastern Cooperative Oncology Group Performance Status and hemoglobin for OS and chemosensitive disease and remission status after transplant for PFS.

CONCLUSION: We conclude that high-dose chemotherapy and autologous transplant with noncryopreserved PBSC is a simple, effective, and safe method for MM with equivalent results, and that cryopreservation is not necessary. It reduces the

cost of transplant and avoids dimethyl sulfoxide toxicity.

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PMID: 24342104 [PubMed - in process]

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Serous ovarian cancer (SOC) is a significant cause of morbidity and mortality in females with poor prognosis because of advanced stage at presentation. Recently, neoadjuvant chemotherapy (NACT) is being used for management of advanced SOC, but role of tissue biomarkers in prognostication following NACT is not well established. The study was conducted on advanced stage SOC patients (n = 100) that were treated either conventionally (n = 50) or with NACT (n = 50), followed by surgery. In order to evaluate the expression of tissue biomarkers (p53, MIB1, estrogen and progesterone receptors, Her-2/neu, E-cadherin, and Bcl2), immunohistochemistry and semiquantitative scoring were done following morphological examination. Following NACT, significant differences in tumor histomorphology were observed as compared to the native neoplasms. MIB 1 was significantly lower in cases treated with NACT and survival outcome was significantly better in cases with low MIB 1. ER expression was associated with poor overall survival. No other marker displayed any significant difference in expression or correlation with survival between the two groups. Immunophenotype of SOC does not differ significantly in samples from cases treated with NACT, compared to upfront surgically treated cases. The proliferating capacity of the residual tumor cells is less, depicted by low mean MIB1 LI. MIB 1 and ER inversely correlate with survival.

PMCID: PMC4016870

PMID: 24864239 [PubMed - in process]

63: Khokhar S, Agrawal S, Gupta S, Gogia V, Agarwal T. Epidemiology of traumatic lenticular subluxation in India. *Int Ophthalmol.* 2014 Apr;34(2):197-204. doi: 10.1007/s10792-013-9813-8. Epub 2013 Jun 20. PubMed PMID: 23783656.

To study the epidemiological and clinical profile of patients with traumatic subluxated lenses at a tertiary care center in India. Ours was a non-comparative descriptive case series. Evaluation of 71 eyes of 71 consecutive patients presenting to the lens clinic over a period of 2 years with traumatic lenticular subluxation was done. Demographic and clinical profile of patients was acquired, followed by a biomicroscopic examination of the cornea, anterior chamber, iris, lens, angles, zonules, anterior vitreous and fundus. Most of the patients were adolescents and belonged to lower socioeconomic status. The mean time lag before presenting was 33.6 months (range 5 days to 40 years) and mean visual acuity in the affected eyes was 1.67 + 0.56 logMAR. Blunt trauma (63/71) was nine times more common than penetrating trauma in the etiology of manifest subluxation. Injury while playing accounted for the highest rate of injury; sports-related injury with a gulli danda or a cricket bat and ball were the most common mode of blunt trauma while bow and arrow injury was the commonest cause of injury in the penetrating trauma subgroup. Cataract was the most frequent ocular association (53.5 %). All eyes had broken zonules and most presented with inferior subluxation (46 %). Traumatic lenticular subluxation, a unilateral cause of zonulolysis usually occurs while playing with a gulli danda, bow and arrow, or cricket bat and ball in Northern India. It is a major cause of severe visual loss and a modification in risk factors is mandatory to decrease ocular morbidity from trauma.

PMID: 23783656 [PubMed - in process]

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Iridodialysis needs to be repaired if it is symptomatic. We describe a new bimanual technique for repair of iridodialysis where a bent 26 gauge (G) needle is used to lift the peripheral iris first. The bevel of the needle then acts as a platform for the 9-0 prolene suture with a straight needle to enable unfolding of the curled up iris by stroking before finally docking the suture needle into the bevel of the 26 G needle. This technique ensures precise scleral fixation.

PMID: 23640267 [PubMed - in process]

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We have earlier shown that cobalt chloride (CoCl₂)-induced hypoxia and second messenger 8-bromoadenosine 3', 5'-cyclic adenosine monophosphate (8-Br-cAMP) stimulates vascular endothelial growth factor (VEGF) production in Leydig tumor cell derived MA-10 cells. Both stimuli follow common signal transduction pathways including protein kinase A (PK-A), extracellular regulated kinase 1/2 (ERK1/2), and phosphatidyl inositol-3 kinase/akt (PI3-K/Akt) pathways in the stimulation of VEGF by MA-10 cells. In the present study we investigated the role of CoCl₂ and 8-Br-cAMP on steroid production in MA-10 cells. The MA-10 cells were cultured in Waymouth MB 752/1 medium, supplemented with 15% heat inactivated horse serum. Progesterone was estimated by radioimmunoassay (RIA). We report that 8-Br-cAMP stimulated progesterone production by the MA-10 cells whereas CoCl₂ inhibited the same. Also, 8-Br-cAMP stimulated steroidogenic acute regulatory protein (StAR) and cytochrome P450 side-chain cleavage enzyme (P450_{scc}) mRNAs expression. However, CoCl₂ had no effect on StAR mRNA. Cobalt chloride directly inhibited the expression of P450_{scc} mRNA. The decrease in progesterone production could be attributed to three different mechanisms, (1) an increase in production of reactive oxygen species (ROS), (2) an increase in HIF-1 α activity, and (3) ultimately a decrease in the level of cytochrome P450 side chain cleavage (CYT P450_{scc}). Hypoxia has an action and mechanism of action similar to that of gonadotropins on VEGF production, whereas they have a contrasting effect on steroidogenesis. This study suggests that hypoxia could be as important as gonadotropins in regulating Leydig cell steroidogenesis.

PMID: 24328340 [PubMed - in process]

66: Kumar A, Chandra PS, Sharma BS, Garg A, Rath GK, Bithal PK, Tripathi M. The role of neuronavigation-guided functional MRI and diffusion tensor tractography along with cortical stimulation in patients with eloquent cortex lesions. *Br J Neurosurg*. 2014 Apr;28(2):226-33. doi: 10.3109/02688697.2013.835370. Epub 2013 Sep 11. PubMed PMID: 24024910.

OBJECTIVE. To effectively combine functional MRI (fMRI), diffusion tensor tractography (both guided by neuronavigation) along with cortical stimulation (CS) for surgery of eloquent cortex (EC) lesions. MATERIALS AND METHODS. Fifteen patients with lesions adjacent to the eloquent motor and sensory cortex were included. Preoperative fMRI and diffusion tensor imaging were performed and then integrated into the neuronavigation system. Intraoperative CS of sensory/motor cortex was performed to localize the EC under awake condition and this was correlated with areas active on fMRI utilizing neuronavigation. For excision of

the deeper structures, CS, and tractography guided by neuronavigation were utilized. RESULTS. A total of 127 cortical sites were evaluated with CS in 15 patients. The overall sensitivity, specificity, and accuracy of fMRI were 79%, 85%, and 82%, respectively, keeping the areas positive on CS as a referential parameter. Tractography helped in resecting the deeper areas of the tumor, but was not very accurate due to brain shift. However, it was useful in roughly assessing the deeper areas close to the long tracts. The risk of developing persistent neurological deficits was 6%. Pathologies included gliomas in ten patients, cavernous malformation in two patients, meningioma in one patient, and focal cortical dysplasia and Dysembryonic neuroepithelial tumor in one patient each. Near total excision was achieved in 7/10 (> 95% excision) gliomas and a total excision in all others lesions. CONCLUSIONS. Lesions directly over the EC present a special surgical challenge. The challenge lies in excising these lesions without producing any deficits. These goals may be achieved better by combined use of multimodal neuronavigation (fMRI and tractography) and intraoperative mapping with CS under awake conditions.

PMID: 24024910 [PubMed - in process]

67: Kumar G, Srivastava A, Sharma SK, Gupta YK. Safety evaluation of mercury based Ayurvedic formulation (Sidh Makardhwaj) on brain cerebrum, liver & kidney in rats. Indian J Med Res. 2014 Apr;139(4):610-8. PubMed PMID: 24927349; PubMed Central PMCID: PMC4078501.

BACKGROUND & OBJECTIVES: Sidh Makardhwaj (SM) is a mercury based Ayurvedic formulation used in rheumatoid arthritis and neurological disorders. However, toxicity concerns due to mercury content are often raised. Therefore, the present study was carried out to evaluate the effect of SM on brain cerebrum, liver and kidney in rats.

METHODS: Graded doses of SM (10, 50, 100 mg/kg), mercuric chloride (1 mg/kg) and normal saline were administered orally to male Wistar rats for 28 days. Behavioural parameters were assessed on days 1, 7, 14 and 28 using Morris water maze, passive avoidance, elevated plus maze and rota rod. Liver and kidney function tests were done on day 28. Animals were sacrificed and brain cerebrum acetylcholinesterase activity, levels of malondialdehyde (MDA), reduced glutathione (GSH) in brain cerebrum, liver, kidney were estimated. The levels of mercury in brain cerebrum, liver and kidney were estimated and histopathology of these tissues was also performed.

RESULTS: SM in the doses used did not cause significant change in neurobehavioural parameters, brain cerebrum AChE activity, liver (ALT, AST, ALP bilirubin) and kidney (serum urea and creatinine) function tests as compared to control. The levels of mercury in brain cerebrum, liver, and kidney were found to be raised in dose dependent manner. However, the levels of MDA and GSH in these tissues did not show significant changes at doses of 10 and 50 mg/kg. Also, there was no histopathological change in cytoarchitecture of brain cerebrum, liver, and kidney tissues at doses of 10 and 50 mg/kg.

INTERPRETATION & CONCLUSIONS: The findings of the present study suggest that Sidh Makardhwaj upto five times the equivalent human dose administered for 28 days did not show any toxicological effects on rat brain cerebrum, liver and kidney.

PMCID: PMC4078501

PMID: 24927349 [PubMed - in process]

68: Kumar L, Iqbal N, Mookerjee A, Verma RK, Sharma OD, Batra A, Pramanik R, Gupta R. Complete response after autologous stem cell transplant in multiple myeloma. Cancer Med. 2014 Aug;3(4):939-46. doi: 10.1002/cam4.257. Epub 2014 Apr 29. PubMed PMID: 24777883.

We evaluated long-term outcome of patients achieving complete response (CR) after autologous stem cell transplantation (ASCT) for multiple myeloma. Between April 1990 and June 2012 191 patients underwent ASCT. The median age was 53 years (range, 26-68 years), 135 were men. Pretransplant, patients received induction therapy with VAD (vincristine, doxorubicin, dexamethasone; n = 77), novel agents (n = 92), or alkylating agent-based, (n = 22); 43% received more than one line of induction regimen. Response to transplant was defined as per EBMT criteria. The median follow-up for the entire group was 85 months (range, 6-232.5 months). Following transplant 109 (57.1%) patients achieved CR. Median progression-free survival (PFS) for patients with CR was higher compared to those with VGPR and PR, (107 vs. 18 vs. 18 months, $P < 0.001$). Number of lines of therapy pretransplant (one or two vs. more than two lines of therapy ($P < 0.001$), and absolute lymphocyte count of $\leq 3000/\text{cmm}$ were predictors of superior PFS. Median overall survival (OS) for patients with CR was higher, (204 months), compared to those with VGPR (71.5 months, $P < 0.001$) and PR (51.5 months, $P < 0.001$), respectively. On Cox regression analysis, patients who received one line of induction therapy pretransplant (hazard ratio, HR 2.154, $P < 0.001$) and those with absolute lymphocyte count of $\leq 3000/\text{mm}^3$ (HR 0.132, $P < 0.001$) had superior PFS. For overall survival, induction treatment up to one line (HR 2.403, $P < 0.004$) and Hb > 7.1 G/dL at diagnosis (HR 4.756, $P < 0.01$) were associated with superior outcome. On landmark analysis at 12 months, PFS and OS continued to remain superior for patients attaining CR. Achievement of CR post transplant is associated with longer OS and PFS. Among complete responders, those who receive one line of induction therapy pretransplant have superior outcome.

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PMID: 24777883 [PubMed - in process]

69: Kumar M, Gupta D, Singh G, Sharma S, Bhat M, Prashant CK, Dinda AK, Kharbanda S, Kufe D, Singh H. Novel polymeric nanoparticles for intracellular delivery of peptide Cargos: antitumor efficacy of the BCL-2 conversion peptide NuBCP-9. *Cancer Res.* 2014 Jun 15;74(12):3271-81. doi: 10.1158/0008-5472.CAN-13-2015. Epub 2014 Apr 16. PubMed PMID: 24741005; PubMed Central PMCID: PMC4089982.

The preclinical development of peptidyl drugs for cancer treatment is hampered by their poor pharmacologic properties and cell penetrative capabilities in vivo. In this study, we report a nanoparticle-based formulation that overcomes these limitations, illustrating their utility in studies of the anticancer peptide NuBCP-9, which converts BCL-2 from a cell protector to a cell killer. NuBCP-9 was encapsulated in polymeric nanoparticles composed of a polyethylene glycol (PEG)-modified polylactic acid (PLA) diblock copolymer (NuBCP-9/PLA-PEG) or PEG-polypropylene glycol-PEG-modified PLA-tetrablock copolymer (NuBCP-9/PLA-PEG-PPG-PEG). We found that peptide encapsulation was enhanced by increasing the PEG chain length in the block copolymers. NuBCP-9 release from the nanoparticles was controlled by both PEG chain length and the PLA molecular weight, permitting time-release over sustained periods. Treatment of human cancer cells with these nanoparticles in vitro triggered apoptosis by NuBCP-9-mediated mechanism, with a potency similar to NuBCP-9 linked to a cell-penetrating poly-Arg peptide. Strikingly, in vivo administration of NuBCP-9/nanoparticles triggered complete regressions in the Ehrlich syngeneic mouse model of solid tumor. Our results illustrate an effective method for sustained delivery of anticancer peptides, highlighting the superior qualities of the novel PLA-PEG-PPG-PEG tetrablock copolymer formulation as a tool to target intracellular proteins.

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PMCID: PMC4089982 [Available on 2015/6/15]

PMID: 24741005 [PubMed - in process]

70: Kumar N, Goyal H, Bindra A, Goyal K. Management of aspirated tooth in an adult head injury patient: Report of two cases. *Saudi J Anaesth.* 2014 Apr;8(2):276-8. doi: 10.4103/1658-354X.130747. PubMed PMID: 24843346; PubMed Central PMCID: PMC4024690.

Aspiration of foreign bodies is common in a pediatric age group but adults can also be at risk. We describe management of two adult trauma victims with aspirated tooth. In the first case, foreign body went missing for sometime by intensive care physician and detected by radiologist while it was obvious in the second case. Both the patients were managed with the help of rigid bronchoscopy. Tooth should be removed as soon as possible or it may result in complete airway obstruction or lung collapse.

PMCID: PMC4024690
PMID: 24843346 [PubMed]

71: Kumar N, Singh A, Saxena R, Menon V, Sharma S. An unusual cause of optic atrophy in a child. *Indian J Ophthalmol.* 2014 Apr;62(4):494-5. doi: 10.4103/0301-4738.132111. PubMed PMID: 24817753; PubMed Central PMCID: PMC4064232.

A 13-year-old child presenting with gross visual impairment was diagnosed as a case of optic atrophy. However, radiological investigations revealed osteopetrosis, which, though rare, can result in optic atrophy. The aim of this case report is to highlight this possibility while evaluating cases of optic atrophy in young patients.

PMCID: PMC4064232
PMID: 24817753 [PubMed - in process]

72: Kumar P, Singhal M, Sagar S, Gupta A. Delayed torrential haemorrhage after firearm injury. *BMJ Case Rep.* 2014 Apr 15;2014. pii: bcr2013201686. doi: 10.1136/bcr-2013-201686. PubMed PMID: 24810442.

A 30-year-old man was referred to us after 48 days of gunshot injury to left groin, with torrential bleeding from a pseudoaneurysm of the left external iliac artery. He was successfully managed with a team of specialists involving trauma surgeon, vascular and plastic surgeon, general surgeons and intervention radiologist with the help of critical care specialists. He required judicious debridement, a transverse rectus abdominis musculocutaneous flap, stenting of the external iliac artery, repair of the external iliac vein and ligation of the bilateral internal iliac artery. He had prolonged intensive care unit stay with open abdomen requiring specialised care. Errors in regular assessment of patient by clinical and radiological examination along with failure in early adequate debridement were responsible for trauma suffered by him. Though it is a rare injury, these devastating complications can occur after any gunshot injury and proper management guidelines must be established.

PMID: 24810442 [PubMed - in process]

73: Kumar V, Nag TC, Sharma U, Jagannathan NR, Wadhwa S. Differential effects of prenatal chronic high-decibel noise and music exposure on the excitatory and inhibitory synaptic components of the auditory cortex analog in developing chicks (*Gallus gallus domesticus*). *Neuroscience.* 2014 Jun 6;269:302-17. doi: 10.1016/j.neuroscience.2014.03.061. Epub 2014 Apr 8. PubMed PMID: 24721732.

Proper development of the auditory cortex depends on early acoustic experience that modulates the balance between excitatory and inhibitory (E/I) circuits. In the present social and occupational environment exposure to chronic loud sound in

the form of occupational or recreational noise, is becoming inevitable. This could especially disrupt the functional auditory cortex development leading to altered processing of complex sound and hearing impairment. Here we report the effects of prenatal chronic loud sound (110-dB sound pressure level (SPL)) exposure (rhythmic [music] and arrhythmic [noise] forms) on the molecular components involved in regulation of the E/I balance in the developing auditory cortex analog/Field L (AuL) in domestic chicks. Noise exposure at 110-dB SPL significantly enhanced the E/I ratio (increased expression of AMPA receptor GluR2 subunit and glutamate with decreased expression of GABA(A) receptor gamma 2 subunit and GABA), whereas loud music exposure maintained the E/I ratio. Expressions of markers of synaptogenesis, synaptic stability and plasticity i.e., synaptophysin, PSD-95 and gephyrin were reduced with noise but increased with music exposure. Thus our results showed differential effects of prenatal chronic loud noise and music exposures on the E/I balance and synaptic function and stability in the developing auditory cortex. Loud music exposure showed an overall enrichment effect whereas loud noise-induced significant alterations in E/I balance could later impact the auditory function and associated cognitive behavior.

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PMID: 24721732 [PubMed - in process]

74: Kumari A, Chakrawarty A, Singh A, Singh R. Maternofoetal complications and their association with proteinuria in a tertiary care hospital of a developing country. *J Pregnancy*. 2014;2014:431837. doi: 10.1155/2014/431837. Epub 2014 Apr 14. PubMed PMID: 24829801; PubMed Central PMCID: PMC4009128.

OBJECTIVE. To investigate association between maternofoetal complications and the amount of proteinuria measured by spot urine protein creatinine ratio in patients with preeclampsia. **METHODS.** 200 consecutive patients with preeclampsia were recruited in the study. The complications like first episode of severe hypertension, renal insufficiency, raised level of aspartate transaminase, signs of neurological involvement, thrombocytopenia, eclampsia, and need to shift in intensive care units were studied. The maternal outcome was studied in terms of type of labour, outcome of pregnancy, mode of delivery, indication of cesarean section, and maternal mortality. The foetal complications and outcome parameters were birth weight, Apgar score at the time of birth and at five minutes, need of high dependency unit care, and perinatal mortality. **RESULT.** The frequency of various maternal and foetal complications was between 14-53% and 22-92%, respectively. Maternal mortality was 3%, whereas perinatal mortality was 23%. Statistically significant association was found between the frequencies of various complications in mother and newborn and spot UPCR. **CONCLUSION.** The rate of various maternofoetal complications in preeclampsia is higher in developing countries than in developed world. Maternofoetal complications and outcome correlate with maternal spot UPCR.

PMCID: PMC4009128

PMID: 24829801 [PubMed - in process]

75: Kumari VA, Gupta P, Srivastava MV, Kumar L, Kriplani A, Bhatla N. Paraneoplastic cerebellar degeneration as the first evidence of malignancy: a case report. *J Obstet Gynaecol Res*. 2014 May;40(5):1463-5. doi: 10.1111/jog.12331. Epub 2014 Apr 2. PubMed PMID: 24689522.

Paraneoplastic cerebellar degeneration (PCD) is an immune-mediated paraneoplastic disorder affecting the cerebellum. PCD associated with ovarian malignancy is a rare occurrence with fewer than 100 cases reported in published work. PCD patients express anti-Yo antibody, one of the anti-onconeural antibodies which is most likely associated with gynecologic or breast malignancies. In this

report, we present the case of a 65-year-old postmenopausal woman presenting with acute symptoms of PCD as a first sign of ovarian malignancy.

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PMID: 24689522 [PubMed - in process]

76: Kushwaha V, Sinha Deb K, Chadda RK, Mehta M. A study of disability and its correlates in somatization disorder. *Asian J Psychiatr.* 2014 Apr;8:56-8. doi: 10.1016/j.ajp.2013.10.016. Epub 2013 Nov 5. PubMed PMID: 24655628.

OBJECTIVE: The present study was conducted to assess disability, and its demographic and clinical correlates in patients suffering from somatization disorder.

METHOD: Sixty-six patients, diagnosed as somatization disorder according to ICD 10 Diagnostic Criteria for Research (ICD 10-DCR), were assessed for disability using the Indian Disability Evaluation and Assessment Scale (IDEAS). Patients were also assessed for associated anxiety, depression, neuroticism and subjective distress using the Hamilton Rating Scale for Anxiety (HAM-A), Hamilton Rating Scale for Depression (HAM-D), PGI Health Questionnaire N2 (PGIN2), and Visual Analog Scale, respectively.

RESULTS: Mean age of the sample was 34.5±5.8 years. Females constituted about 60% of the sample. Mean duration of illness was 9.14±4.13 years. More than 70% of the subjects suffered moderate to severe disability. Age, number of symptoms, duration of illness, and scores on HAM-A and HAM-D showed a positive correlation with disability.

CONCLUSION: Somatization disorder is associated with significant disability which increases with the number of somatic symptoms, duration of illness, associated depressive and anxiety symptoms.

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PMID: 24655628 [PubMed - in process]

77: Layek A, Maitra S, Pal S, Bhattacharjee S, Baidya DK. Efficacy of vasopressin during cardio-pulmonary resuscitation in adult patients: a meta-analysis. *Resuscitation.* 2014 Jul;85(7):855-63. doi: 10.1016/j.resuscitation.2014.03.303. Epub 2014 Apr 2. PubMed PMID: 24704138.

BACKGROUND: Experimental and animal studies suggested that vasopressin may have a favorable survival profile during CPR. This meta-analysis aimed to determine the efficacy of vasopressin in adult cardiac patients.

METHODOLOGY: Meta-analysis of randomized control trials (RCTs) comparing the efficacy of vasopressin containing regimen during CPR in adult cardiac arrest population with an epinephrine only regimen.

RESULTS: A total of 6120 patients from 10 RCTs were included in this meta-analysis. Vasopressin use during CPR has no beneficial impact in an unselected population in ROSC [OR 1.19, 95% CI 0.93, 1.52], survival to hospital discharge [OR 1.13, 95% CI 0.89, 1.43], survival to hospital admission [OR 1.12, 95% CI 0.99, 1.27] and favorable neurological outcome [OR 1.02, 95% CI 0.75, 1.38]. ROSC in "in-hospital" cardiac arrest setting [OR 2.20, 95% CI 1.08, 4.47] is higher patients receiving vasopressin. Subgroup analyses revealed equal or higher chance of ROSC [OR 2.15, 95% CI 1.00, 4.61], higher possibility of

survival to hospital discharge [OR 2.39, 95% CI 1.34, 4.27] and favorable neurological outcome [OR 2.58, 95% CI 1.39, 4.79] when vasopressin was used as repeated boluses of 4-5 times titrating desired effects during CPR.

CONCLUSION: ROSC in "in-hospital" cardiac arrest patients is significantly better when vasopressin was used. A subgroup analysis of this meta-analysis found that ROSC, survival to hospital admission and discharge and favorable neurological outcome may be better when vasopressin was used as repeated boluses of 4-5 times titrated to desired effects; however, overall no beneficial effect was noted in unselected cardiac arrest population.

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PMID: 24704138 [PubMed - in process]

78: Mahapatra A, Pattnaik D, Majhi S, Sahoo D. Post traumatic abscess caused by *Brevundimonas diminuta*: a rare case report. *Indian J Pathol Microbiol*. 2014 Apr-Jun;57(2):354-6. doi: 10.4103/0377-4929.134754. PubMed PMID: 24943796.

PMID: 24943796 [PubMed - in process]

79: Maitra S, Baidya DK, Khanna P, Ray BR, Panda SS, Bajpai M. Acute perioperative pain in neonates: An evidence-based review of neurophysiology and management. *Acta Anaesthesiol Taiwan*. 2014 Mar;52(1):30-37. doi: 10.1016/j.aat.2014.02.004. Epub 2014 Apr 2. Review. PubMed PMID: 24999216.

Current literature lacks systematic data on acute perioperative pain management in neonates and mainly focuses only on procedural pain management. In the current review, the neurophysiological basis of neonatal pain perception and the role of different analgesic drugs and techniques in perioperative pain management in neonates are systematically reviewed. Intravenous opioids such as morphine or fentanyl as either intermittent bolus or continuous infusion remain the most common modality for the treatment of perioperative pain. Paracetamol has a promising role in decreasing opioid requirement. However, routine use of ketorolac or other nonsteroidal anti-inflammatory drugs is not usually recommended. Epidural analgesia is safe in experienced hands and provides several benefits over systemic opioids such as early extubation and early return of bowel function.

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PMID: 24999216 [PubMed - as supplied by publisher]

80: Makhija N, Malankar D, Singh P, Goyal S, Patel K, Jagia P. Left atrial ball thrombus with acute mesenteric ischemia: anesthetic management and role of transesophageal echocardiography. *Ann Card Anaesth*. 2014 Apr-Jun;17(2):148-51. doi: 10.4103/0971-9784.129868. PubMed PMID: 24732618.

A 62 year old female with severe mitral stenosis, large left atrial ball thrombus and acute mesenteric ischemia emergently underwent mitral valve replacement, left atrial clot removal and emergency laparotomy for mesenteric ischemia. Peri-operative management issues, particularly, the anesthetic challenges and the role of transesophageal echocardiography are discussed.

PMID: 24732618 [PubMed - in process]

81: Malik MA. Comment on 'The NQ01 polymorphism C609T (Pro187Ser) and cancer susceptibility: a comprehensive meta-analysis'. *Br J Cancer*. 2014 Apr 15. doi: 10.1038/bjc.2014.184. [Epub ahead of print] PubMed PMID: 24736580.

PMID: 24736580 [PubMed - as supplied by publisher]

82: Malik PS, Raina V, André N. Metronomics as maintenance treatment in oncology: time for chemo-switch. *Front Oncol.* 2014 Apr 10;4:76. doi: 10.3389/fonc.2014.00076. eCollection 2014. Review. PubMed PMID: 24782987; PubMed Central PMCID: PMC3989712.

PMCID: PMC3989712

PMID: 24782987 [PubMed]

83: Mallath MK, Taylor DG, Badwe RA, Rath GK, Shanta V, Pramesh CS, Digumarti R, Sebastian P, Borthakur BB, Kalwar A, Kapoor S, Kumar S, Gill JL, Kuriakose MA, Malhotra H, Sharma SC, Shukla S, Viswanath L, Chacko RT, Pautu JL, Reddy KS, Sharma KS, Purushotham AD, Sullivan R. The growing burden of cancer in India: epidemiology and social context. *Lancet Oncol.* 2014 May;15(6):e205-12. doi: 10.1016/S1470-2045(14)70115-9. Epub 2014 Apr 11. PubMed PMID: 24731885.

Cancer can have profound social and economic consequences for people in India, often leading to family impoverishment and societal inequity. Reported age-adjusted incidence rates for cancer are still quite low in the demographically young country. Slightly more than 1 million new cases of cancer are diagnosed every year in a population of 1.2 billion. In age-adjusted terms this represents a combined male and female incidence of about a quarter of that recorded in western Europe. However, an estimated 600,000-700,000 deaths in India were caused by cancer in 2012. In age-standardised terms this figure is close to the mortality burden seen in high-income countries. Such figures are partly indicative of low rates of early-stage detection and poor treatment outcomes. Many cancer cases in India are associated with tobacco use, infections, and other avoidable causes. Social factors, especially inequalities, are major determinants of India's cancer burden, with poorer people more likely to die from cancer before the age of 70 years than those who are more affluent. In this first of three papers, we examine the complex epidemiology of cancer, the future burden, and the dominant sociopolitical themes relating to cancer in India.

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PMID: 24731885 [PubMed - indexed for MEDLINE]

84: Mallick S, Singh L, Rajan K, Sharma MC, Bansl V, Dinda AK. Malignant melanoma of soft parts with osteoclast-rich giant cells: A rare tumour of the jejunum. *Australas Med J.* 2014 Apr 30;7(4):181-4. doi: 10.4066/AMJ.2014.1970. eCollection 2014. PubMed PMID: 24817912; PubMed Central PMCID: PMC4009879.

Malignant melanoma of soft parts (MMSP), first described by Franz M. Enzinger, is a rare tumour of unknown cell origin. We describe a case of a 45-year-old male who presented with a one-year history of abdominal pain, weakness, and anaemia. Computerised tomography enteroclysis showed a mass in the jejunum that was suggestive of a gastrointestinal stromal tumour. An ulceroinfiltrative lesion measuring 6.5 x 4 x 2cm was identified. Microscopy revealed typical features of MMSP with numerous osteoclasts-like giant cells. The diverse histomorphology and immunohistochemical characteristics of this case involving a rare tumour at a rare site is presented.

PMCID: PMC4009879

PMID: 24817912 [PubMed]

85: Maruti Pol M, Gupta A, Kumar S, Mishra B. Innominate artery injury: a catastrophic complication of tracheostomy, operative procedure revisited. *BMJ Case Rep.* 2014 Apr 3;2014. pii: bcr2013201628. doi: 10.1136/bcr-2013-201628.

PubMed PMID: 24700033.

A patient presented with profuse bleeding from the oronasal cavity following orofaciomaxillary trauma associated with tracheolaryngeal injury and suspected cervical-spine injury due to collapse of a wall on the face, neck and upper chest. The patient was gasping, coughing blood and was unable to speak. Threatened airway was diagnosed. Inability to maintain oxygenation on cricothyroidotomy, forced emergency department surgeons to shift the patient to the operating room for definitive airway. During tracheostomy a major vessel was injured. Application of vascular clamp in the event of achieving haemostasis resulted in disappearance of saturation and pulse in the right upper limb, thus we suspected innominate artery (IA) injury. High tracheostomy performed and endotracheal tube passed into the trachea after removing clot and overcoming compromised narrow tracheal lumen. The injured IA was repaired and the patient survived for 14 days. On postoperative day 14 he died following profound bleeding into the tracheobronchial tree and asphyxia/apnoea. Tracheoinnominate artery fistula was detected at autopsy.

PMID: 24700033 [PubMed - in process]

86: Meena S, Barwar N, Rastogi D, Sharma V. Injuries associated with cycle rickshaws accidents. *J Emerg Trauma Shock*. 2014 Apr;7(2):73-6. doi: 10.4103/0974-2700.130874. PubMed PMID: 24812450; PubMed Central PMCID: PMC4013740.

CONTEXT: Cycle rickshaw is an important means of transportation in Urban India. Pedestrians, rickshaw users, rickshaw pullers, two wheeled vehicle users and cyclists are among the most vulnerable road user groups in terms of injuries and fatalities resulting from road traffic accidents in India. Our objectives were to study characteristics of crashes and nature of injuries associated with cycle rickshaw.

PATIENTS AND METHODS: Between August 2008 to July 2009, a hospital based observational study was done of patients who presented to King George medical college trauma center with injury sustained due to cycle rickshaw in emergency department. Age, time of trauma, mode of trauma, contributing factors and type of injury were recorded.

RESULTS: The mean age of the patient was 32.1. Seventeen patients were rickshaw pullers and the rest were occupants of the rickshaw. Overloading with more than two passengers was found in 24 cases (28.5%). Most common cause of injury was collision with a moving vehicle (56 patients, %) followed by fall from rickshaw. The most common contributing factor was the overloading of rickshaw. On arrival to the hospital, the mean Injury severity score (ISS) was 3.5 ± 2.2 and the mean Glasgow coma scale (GCS) was 13.4 ± 4.3 . Nine patients were admitted to ICU (Intensive care unit). The median ICU stay was 4 (1-24 days). Six of the ICU admitted patients had head injury.

CONCLUSION: Rickshaw pullers and occupants are vulnerable to road traffic accidents. Urgent preventive measures targeted towards this group are needed to reduce the morbidity and mortality resulting from injuries involving rickshaws. The need for improved understanding of the risk characteristics of cycle rickshaw is emphasized.

PMCID: PMC4013740

PMID: 24812450 [PubMed]

87: Mina S, Verma R, Balhara YP, Ul-Hasan S. Road rage: prevalence pattern and web based survey feasibility. *Psychiatry J*. 2014;2014:897493. doi: 10.1155/2014/897493. Epub 2014 Apr 23. PubMed PMID: 24864226; PubMed Central

PMCID: PMC4017794.

Introduction. Incidents of road rage are on a rise in India, but the literature is lacking in the aspect. There is an increasing realization of possibility of effective web based interventions to deliver public health related messages. **Objective.** The aim was to quantitatively evaluate risk factors among motor vehicle drivers using an internet based survey. **Methods.** Facebook users were evaluated using Life Orientation Test-Revised (LOT-R) and Driving Anger Scale (DAS). **Results.** An adequate response rate of 65.9% and satisfactory reliability with sizable correlation were obtained for both scales. Age was found to be positively correlated to LOT-R scores ($r = 0.21$; $P = 0.02$) and negatively correlated to DAS scores ($r = -0.19$; $P = 0.03$). Years of education were correlated to LOT-R scores ($r = 0.26$; $P = 0.005$) but not DAS scores ($r = -0.14$; $P = 0.11$). LOT-R scores did not correlate to DAS scores. **Conclusion.** There is high prevalence of anger amongst drivers in India particularly among younger males. A short web survey formatted in easy to use question language can result in a feasible conduction of an online survey.

PMCID: PMC4017794

PMID: 24864226 [PubMed]

88: Mishra M, Chaudhri S, Tripathi V, Verma AK, Sampath A, Chauhan NK. Weaning of mechanically ventilated chronic obstructive pulmonary disease patients by using non-invasive positive pressure ventilation: A prospective study. *Lung India*. 2014 Apr;31(2):127-33. doi: 10.4103/0970-2113.129827. PubMed PMID: 24778474; PubMed Central PMCID: PMC3999671.

BACKGROUND: Chronic obstructive pulmonary disease (COPD) patients frequently pose difficulty in weaning from invasive mechanical ventilation (MV). Prolonged invasive ventilation brings along various complications. Non-invasive positive pressure ventilation (NIPPV) is proposed to be a useful weaning modality in such cases.

OBJECTIVE: To evaluate the usefulness of NIPPV in weaning COPD patients from invasive MV, and compare it with weaning by conventional pressure support ventilation (PSV).

MATERIALS AND METHODS: For this prospective randomized controlled study, we included 50 COPD patients with type II respiratory failure requiring initial invasive MV. Upon satisfying weaning criteria and failing a t-piece weaning trial, they were randomized into two groups: Group I (25 patients) weaned by NIPPV, and group II (25 patients) weaned by conventional PSV. The groups were similar in terms of disease severity, demographic, clinical and biochemical parameters. They were compared in terms of duration of MV, weaning duration, length of intensive care unit (ICU) stay, occurrence of nosocomial pneumonia and outcome.

RESULTS: Statistically significant difference was found between the two groups in terms of duration of MV, weaning duration, length of ICU stay, occurrence of nosocomial pneumonia and outcome.

CONCLUSION: NIPPV appears to be a promising weaning modality for mechanically ventilated COPD patients and should be tried in resource-limited settings especially in developing countries.

PMCID: PMC3999671

PMID: 24778474 [PubMed]

89: Mittal R, Sampath Kumar V, Gupta T. Patella cubiti: a case report and literature review. *Arch Orthop Trauma Surg*. 2014 Apr;134(4):467-71. doi: 10.1007/s00402-014-1926-7. Epub 2014 Feb 4. PubMed PMID: 24493466.

Patella cubiti is a rare elbow anomaly in which either the entire olecranon or a part of it remains separate from the proximal ulna. Pain and stiffness are the usual presenting symptoms while some patients are diagnosed incidentally following a minor trauma. Our case report is of a 24-year-old male wrestler with bilateral patella cubiti which was painful on right side and asymptomatic on the left. We also mention an additional cause of pain in patella cubiti-intra-articular loose bodies. These loose bodies were removed surgically and the patient remained asymptomatic at 6-months follow-up. Presence of growth disturbance in the secondary epiphyseal centre of first lumbar vertebra supports the 'developmental theory' of origin of patella cubiti. A compilation of data available in the literature on patella cubiti has been included.

PMID: 24493466 [PubMed - in process]

90: Mittal S, Gupta P, Malhotra N, Singh N. Serum estradiol as a predictor of success of in vitro fertilization. *J Obstet Gynaecol India*. 2014 Apr;64(2):124-9. doi: 10.1007/s13224-013-0470-7. Epub 2013 Nov 1. PubMed PMID: 24757341; PubMed Central PMCID: PMC3984655.

AIM: The aim of this study was to assess the role of total serum estradiol on the day of injection HCG, estradiol per mature follicle, and estradiol per oocytes retrieved (OR) on clinical pregnancy rate (CPR) and oocyte/embryo quality in assisted reproduction.

MATERIALS AND METHODS: A retrospective review of 342 in vitro fertilization cycles with normal ovarian reserve in women who underwent long GnRH agonist protocol was included. The outcomes assessed are number of OR, number of mature oocytes (MO), number of oocytes fertilized (FO), fertilization rate, number of embryos cleaved (EC), cleavage rate (CR), number of Grade I embryos (E), number of cryopreserved embryos (CPE), and CPR. The Estradiol/follicle ratio (E2/fol) was defined as estradiol level per mature follicle >14 mm in diameter. Estradiol/oocyte (E2/O) ratio was defined as estradiol level per OR. These two ratios were categorized by the 25th percentile into four groups.

RESULTS: A positive correlation was seen between E2/fol and OR ($r = .334$, p value = .0001), MO ($r = .335$, p value = .0001), FO ($r = .222$, p value = .002), and CPE ($r = .289$, p value = .0001). Increased CPR was seen in Group C (E2/fol = 200-299.99) compared to Group A, B, and D (p value = .033). With E2/O ratio, negative correlation was seen between E2/O and OR ($r = -.281$, p value = .002), MO ($r = -.296$, p value = .008), FO ($r = -.220$, p value = .003), EC ($r = -.211$, p value = .004), Grade 1 embryo ($r = -.216$, p value = .001), and CPE ($r = -.206$, p value = .005). No difference in FR, CR, or CPR was seen. No difference was seen in CPR with total serum estradiol.

CONCLUSIONS: In conclusion, serum estradiol is an important determinant of IVF success. While total serum estradiol does not exert any positive or negative influence on IVF outcome, estradiol per mature follicle and retrieved oocytes do have an impact. Pregnancy rate is better when E2/fol is between 200 and 299.99 pg/ml. Also, increasing serum E2/fol positively correlates with better oocytes and embryo quality. In contrast, E2/O negatively correlates with oocytes and embryo quality parameters.

PMCID: PMC3984655 [Available on 2015/4/1]

PMID: 24757341 [PubMed]

91: Mohan T, Verma P, Rao DN. Comparative mucosal immunogenicity of HIV gp41 membrane-proximal external region (MPER) containing single and multiple repeats of ELDKWA sequence with defensin peptides. *Immunobiology*. 2014 Apr;219(4):292-301. doi: 10.1016/j.imbio.2013.11.001. Epub 2013 Nov 17. PubMed PMID: 24290973.

The MPER of gp41 of HIV-1 has received great attention and is widely recognized as a promising target for the development of AIDS vaccine. We investigated the ability of trirepeat of ELDKWA sequence of gp41 antigen with defensins in liposome using multiple-shot immunization strategy in the mice model. The designed was used to enhance the immunogenicity and exposure of MPER in its native conformation for the induction of MPER-specific HIV-1 neutralizing antibodies. To characterize, we estimated the antibody levels (IgG/IgA) in serum as well as in lung, intestinal, vaginal and rectal washes till day 120 in outbred and inbred (H-2(b) and H-2(d)) mice using liposome as delivery vehicle. The representative sera and washes were also tested for in vitro neutralization with CCR5-tropic Indian HIV-1 primary isolates. We observed that the modified HIV antigen containing trirepeat of ELDKWA with defensins was showing significantly ($p < 0.001$) higher IgG/IgA antibody titre (102,400-204,800) in sera as well as in different mucosal washes (1600-6400) than standard HIV-1 antigen. Furthermore, sera from the modified HIV-1 antigen with defensins found to exhibit higher neutralizing activities (ranging from 59.3% to 84.6%) than the standard HIV-1 antigen. These results show that the induction of MPER-specific HIV-1 neutralizing antibodies could be achieved through a rationally designed vaccine strategy.

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PMID: 24290973 [PubMed - in process]

92: Mohanty D, Kumar A, Dalal AK. Pseudotumor of urinary bladder by infected hernia mesh: Where is the evidence of infection? Indian J Urol. 2014 Apr;30(2):237. doi: 10.4103/0970-1591.126921. PubMed PMID: 24744531; PubMed Central PMCID: PMC3989834.

PMCID: PMC3989834

PMID: 24744531 [PubMed]

93: Monga N, Chaurasia S, Kharbanda OP, Duggal R, Rajeswari MR. A study of interleukin 1β levels in peri-miniscrew crevicular fluid (PMCF). Prog Orthod. 2014 Apr 1;15(1):30. doi: 10.1186/s40510-014-0030-4. PubMed PMID: 24935741; PubMed Central PMCID: PMC4047786.

BACKGROUND: This study provides a vital insight in assessing the clinical and biochemical changes in interleukin (IL)- 1β levels in peri-miniscrew crevicular fluid (PMCF) during the course of orthodontic tooth movement.

METHODS: The study comprised the analysis of IL- 1β in peri-miniscrew crevicular fluid obtained from crevices around the miniscrews inserted in 11 patients (eight females and three males, mean age 17.3 ± 4.64 years) with all first premolar extraction and maximum anchorage requirement using miniscrew-supported anchorage. Miniscrews were loaded at 3 weeks after placement by 200-g nitinol closed coil springs of 9-mm length for en masse retraction. Peri-miniscrew crevicular fluid was collected at miniscrew placement (T1), at 3 weeks (T2/baseline) and on loading at 0 (T3) and 1 day (T4), 21 (T5), 72 (T6), 120 (T7), 180 (T8) and 300 (T9) days. IL- 1β levels were estimated by enzyme-linked immunosorbent assay (ELISA). Peri-miniscrew tissue was examined for signs of inflammation, and also, miniscrew mobility was assessed with Periotest and handles of two mouth mirrors.

RESULTS: IL- 1β levels in all miniscrews were significantly higher at T1 and peaked again at T4 showing a bimodal peak. However, there was a gradual and statistically significant decrease in IL- 1β till T5, while further changes till the end of the study were statistically not significant.

CONCLUSIONS: The changing levels of IL- 1β levels in PMCF over a duration of

300 days are suggestive of the underlying inflammatory process. IL-1 β levels in PMCF show a significant rise during miniscrew insertion and on immediate loading. The trend of gradually reducing IL-1 β levels around the miniscrew over the period after loading towards baseline is suggestive of adaptive bone response to stimulus.

PMCID: PMC4047786

PMID: 24935741 [PubMed - in process]

94: Monga N, Kharbanda OP, Duggal R. Innovative biomechanics for orthodontic correction of torsion of maxillary central incisor caused by twin mesiodens. *Contemp Clin Dent*. 2014 Apr;5(2):275-7. doi: 10.4103/0976-237X.132360. PubMed PMID: 24963264; PubMed Central PMCID: PMC4067801.

Mesiodens is the most common type of supernumerary teeth found in the premaxilla between the two central incisors. Early and proper diagnosis and appropriate treatment plan is critical in eluding the extent of treatment needed. This case report presents the successful orthodontic and esthetic management of an unusual case of Indian origin with twin mesiodens in the maxillary arch causing torsion and attrition of mandibular incisors due to occlusal trauma.

PMCID: PMC4067801

PMID: 24963264 [PubMed]

95: Mridha AR, Kinra P, Sable M, Sharma MC, Rastogi S, Khan SA, Gamanagatti S. Epithelioid hemangioma of distal femoral epiphysis in a patient with congenital talipes equinovarus. *Malays J Pathol*. 2014 Apr;36(1):63-6. PubMed PMID: 24763238.

BACKGROUND: Epithelioid hemangioma (EH) is a rare benign vascular lesion of soft tissue and bone, characterized by endothelial cells with epithelioid or histiocytoid appearance. Though tubular bones, flat bones, vertebra and short bones are common sites for this lesion, the epiphyseal involvement is extremely rare. We present an unusual case of EH of the distal femur in a young boy.

CASE REPORT: A 12-year-old boy who had congenital talipes equinovarus of the right foot presented with progressively increasing pain in the right lower thigh for six months. Physical examination revealed muscular atrophy of the right lower limb and a moderately tender swelling in the medial aspect of the right knee without restriction of knee movement. An X-ray revealed an osteolytic lesion, which appeared iso- and hypointense on T1W and hyperintense on T2W MRI images in the distal epiphysis and adjacent metaphysis of the right femur. A radiological diagnosis of chondroblastoma was entertained. The patient was treated with curettage and bone grafting. Histopathology showed a tumor composed of thin-walled arteriolar capillaries lined by large, polyhedral epithelioid endothelial cells with vesicular nuclei, finely distributed nuclear chromatin, and moderate amount of eosinophilic cytoplasm. The endothelial cells were strongly immunopositive for CD34. Mitotic activity was low and the Ki-67 proliferative rate was <2%. A diagnosis of EH was made. EH is a benign lesion and it should be differentiated from its histologically similar malignant counterparts such as epithelioid hemangioendothelioma and epithelioid angiosarcoma as the lesion can be successfully treated with curettage or resection.

PMID: 24763238 [PubMed - in process]

96: Mukherjee A, Karunanithi S, Singla S, Bal C, Kumar R. 68Ga DOTANOC PET/CT in primary neuroendocrine tumor of the breast. *Clin Nucl Med*. 2014 Apr;39(4):396-8. doi: 10.1097/RLU.0000000000000390. PubMed PMID: 24566407.

Primary neuroendocrine tumor (NET) of the breast is very rare. We present a case of a pathologically confirmed, primary breast NET in a 49-year-old woman with 68Ga DOTANOC PET/CT imaging findings. 68Ga DOTANOC PET/CT revealed somatostatin receptors expressing active lesions in primary right breast NET with metastases to multiple bilateral axillary and right cervical lymph nodes, bilateral lungs, and multiple skeletal sites.

PMID: 24566407 [PubMed - in process]

97: Mukherjee A, Dhull VS, Sharma P, Parida GK, Jain S, Pal L, Kumar R. Pulmonary amyloidosis in a patient with Langerhans cell histiocytosis: diagnostic dilemma on 18F-FDG PET/CT. Clin Nucl Med. 2014 Apr;39(4):e263-4. doi: 10.1097/RLU.0b013e3182a7556d. PubMed PMID: 24097004.

Amyloidosis associated with Langerhans cell histiocytosis (LCH) is extremely rare. We here present the 18F-FDG PET/CT images of a 48-year-old male patient with multifocal skeletal involvement of LCH. In addition, he had a left lung upper lobe 18F-FDG avid mass that was misinterpreted as pulmonary involvement of LCH on PET/CT. Biopsy from the mass showed amyloidosis. Therefore, amyloidosis should be kept as a differential for 18F-FDG pulmonary avid nodule.

PMID: 24097004 [PubMed - in process]

98: Nair VV, Rajashekar P, Saxena A, Das S, Airan B. Cortriatriatum with classical Raghiv complex: a rare anatomic association. World J Pediatr Congenit Heart Surg. 2014 Apr;5(2):318-20. doi: 10.1177/2150135113515933. PubMed PMID: 24668983.

Comment in

World J Pediatr Congenit Heart Surg. 2014 Apr;5(2):321-2.

Cortriatriatum with Raghiv's complex is a rarely reported entity. An 18-month-old baby who presented with tachypnea and cyanosis was diagnosed to have cortriatriatum sinistrum along with a persistent left superior caval vein draining to the left atrium through an unroofed coronary sinus. The child underwent successful surgical correction with excision of the cortriatriatum and baffling of the left superior caval vein to the right atrium.

PMID: 24668983 [PubMed - in process]

99: Naswa N, Sharma P, Nazar AH, Mohapatra TK, Bal C, Kumar R. (18)F-FDG PET/CT for initial assessment and response monitoring in a case of high grade primary lymphoma of the thyroid gland: A case report and review of literature. Indian J Nucl Med. 2014 Apr;29(2):94-6. doi: 10.4103/0972-3919.130291. PubMed PMID: 24761061; PubMed Central PMCID: PMC3996779.

Thyroid lymphoma is a rare disease entity of elderly females. Chronic lymphocytic thyroiditis is said to be the precursor of thyroid lymphoma, suggesting a role of chronic antigen stimulation in the development of the disease. We present a case of male with lymphocytic thyroiditis who presented with painless progressive neck enlargement and pathology revealed features of high grade lymphoma. Staging and posttreatment (18)F-fluorodeoxyglucose ((18)F-FDG) positron emission tomography/computed tomography (PET/CT) was performed. This report reemphasizes the role of (18)F-FDG PET/CT in the diagnosis, staging, and assessment of therapy response in patients with extranodal lymphoma, including the primary thyroid lymphoma.

PMCID: PMC3996779

PMID: 24761061 [PubMed]

100: Nataraj V, Kandasamy D, Bakhshi S. Imatinib-induced avascular necrosis of femur in childhood chronic myeloid leukemia. *Pediatr Hematol Oncol*. 2014 Apr;31(3):268-70. doi: 10.3109/08880018.2013.862588. Epub 2014 Jan 2. PubMed PMID: 24383853.

Comment on

J Clin Oncol. 2013 Jun 1;31(16):e248-50.

PMID: 24383853 [PubMed - in process]

101: Negi SS, Nagarkar NM. One step away from conquering polio eradication in India. *Indian J Med Microbiol*. 2014 Apr-Jun;32(2):199. doi: 10.4103/0255-0857.129838. PubMed PMID: 24713917.

PMID: 24713917 [PubMed - in process]

102: Nitika, Lohiya A, Nongkynrih B, Gupta SK. Migrants to urban India: need for public health action. *Indian J Community Med*. 2014 Apr;39(2):73-5. doi: 10.4103/0970-0218.132718. PubMed PMID: 24963221; PubMed Central PMCID: PMC4067932.

PMCID: PMC4067932

PMID: 24963221 [PubMed]

103: Pakhare AP, Pawar R, Lokhande GS, Datta SS. Does seasonal migration for sugarcane harvesting influence routine immunization coverage? A cross-sectional study from rural Maharashtra. *Indian J Public Health*. 2014 Apr-Jun;58(2):116-20. doi: 10.4103/0019-557X.132288. PubMed PMID: 24820986.

A cross-sectional study was conducted to estimate and to compare immunization coverage and to understand reasons of partial/non-immunization among children of seasonal migrant sugarcane harvesting laborers and nonmigrating children. Caretakers of a total of 420 children between 12 and 23 months age were interviewed in 30 clusters consisting 14 children from each cluster (seven from each group) by expanded program on immunization cluster survey method. Statistical analysis was performed with proportions, their 95% confidence intervals (CI), Chi-square test, and binary logistic regression. Full immunization coverage rate was 89.5% (95% CI: 86.5-92.5) for children in nonmigrating group and 70.5% (95% CI: 66.0-74.9) for migrant group. Reasons cited for unimmunized/partially immunized were, place or time of vaccination not known, unavailability of immunization services at site, inconvenient time of sessions, unaware of need for vaccination etc. Thus full immunization coverage rate was significantly lower among children of seasonal migrant sugarcane harvesting laborers.

PMID: 24820986 [PubMed - indexed for MEDLINE]

104: Pal R, Agarwal A, Galwankar S, Swaroop M, Stawicki SP, Rajaram L, Paladino L, Aggarwal P, Bhoi S, Dwivedi S, Menon G, Misra M, Kalra O, Singh A, Radjou AN, Joshi A. The 2014 Academic College of Emergency Experts in India's INDO-US Joint Working Group (JWG) White Paper on "Developing Trauma Sciences and Injury Care in India". *Int J Crit Illn Inj Sci*. 2014 Apr;4(2):114-30. doi: 10.4103/2229-5151.134151. PubMed PMID: 25024939; PubMed Central PMCID: PMC4093962.

It is encouraging to see the much needed shift in the understanding and recognition of the concept of "burden of disease" in the context of traumatic

injury. Equally important is understanding that the impact of trauma burden rivals that of nontraumatic morbidities. Subsequently, this paradigm shift reinstates the appeal for timely interventions as the standard for management of traumatic emergencies. Emergency trauma care in India has been disorganized due to inadequate sensitivity toward patients affected by trauma as well as the haphazard, nonuniform acceptance of standardization as the norm. Some of the major hospitals across various regions in the country do have trauma care units, but even those lack protocols to ensure that all trauma cases are handled by those units, largely owing to lack of structured referral system. As a first step to reform the state of trauma care in the country, a detailed overview is needed to gain insight into the prevailing reality. The objectives of this paper are to thus weave a foundation based on the statistical and qualitative burden of trauma in the country; the available infrastructure of trauma care centers equipped to deal with trauma; the need and scope of standardized protocols for intervention; and most importantly, the application of these in shaping educational initiatives in advancing emergency trauma care in the country.

PMCID: PMC4093962

PMID: 25024939 [PubMed]

105: Panda A, Kumar A, Gamanagatti S, Bhalla AS, Sharma R, Kumar S, Mishra B. Evaluation of diagnostic utility of multidetector computed tomography and magnetic resonance imaging in blunt pancreatic trauma: a prospective study. *Acta Radiol.* 2014 Apr 23. pii: 0284185114529949. [Epub ahead of print] PubMed PMID: 24760286.

BACKGROUND: Blunt pancreatic trauma is an uncommon injury with high morbidity and mortality. Retrospective analyses of computed tomography (CT) performance report CT to have variable sensitivity in diagnosing pancreatic injury. Both a prospective analysis of multidetector CT (MDCT) performance and diagnostic utility of magnetic resonance imaging (MRI) in acute blunt pancreatic injury remain unexplored.

PURPOSE: To prospectively evaluate the utility of MDCT with MRI correlation in patients with blunt pancreatic trauma using intraoperative findings as the gold standard for analysis.

MATERIAL AND METHODS: The contrast-enhanced CT (CECT) scans of patients admitted with blunt abdominal trauma were prospectively evaluated for CT signs of pancreatic injury. Patients detected to have pancreatic injury on CT were assigned a CT grade of injury according to American Association for Surgery of Trauma classification. MRI was performed in patients not undergoing immediate laparotomy and MRI grade independent of CT grade was assigned. Surgical grade was taken as gold standard and accuracy of CT and MRI for grading pancreatic injury and pancreatic ductal injury (PDI) was calculated. A quantitative and qualitative comparison of MRI was also done with CT to determine the performance of MRI in acute pancreatic injury.

RESULTS: Thirty out of 1198 patients with blunt trauma abdomen were detected to have pancreatic injury on CT, which was surgically confirmed in 24 patients. Seventeen underwent MRI and surgical correlation was available in 14 patients. CT and MRI correctly identified the grade of pancreatic injury in 91.7% (22/24) and 92.86% (13/14) patients, respectively. Both CT and MRI correctly identified PDI in 18/19 and 11/12 patients, respectively, with good inter-modality agreement of 88.9% (kappa value of 0.78). MRI also qualitatively added to the information provided by CT and increased diagnostic confidence in 58.8% of patients.

CONCLUSION: MDCT performs well in grading pancreatic injury and evaluating pancreatic ductal injury. MRI is useful in evaluation of acute pancreatic trauma as it can increase diagnostic confidence and provide more qualitative information

regarding the extent of injury.

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PMID: 24760286 [PubMed - as supplied by publisher]

106: Panda SS, Bajpai M, Singh A. Recurrent lipoblastoma of upper extremity in a 9-year-old boy. *BMJ Case Rep.* 2014 Apr 8;2014. pii: bcr2013201973. doi: 10.1136/bcr-2013-201973. PubMed PMID: 24713710.

Lipoblastoma is a benign soft-tissue tumour of infancy and early childhood. The location of the tumour varies from that of the extremities, trunk, retroperitoneum, mediastinal, inguinal and scrotal regions. The most common symptoms are painless mass with or without increasing size. Complete surgical excision is the gold standard for managing this entity. Though rare, the recurrence occurs usually because of incomplete excision. We report a case of recurrent lipoblastoma of the upper extremity in a 9-year-old boy.

PMID: 24713710 [PubMed - in process]

107: Panda SS, Chand K, Singh A, Bajpai M. Inversion of ileum causing intestinal obstruction: rare complication in cloacal exstrophy. *J Clin Neonatol.* 2014 Apr;3(2):126-7. doi: 10.4103/2249-4847.134718. PubMed PMID: 25024986; PubMed Central PMCID: PMC4089130.

PMCID: PMC4089130

PMID: 25024986 [PubMed]

108: Panda SS, Bajpai M, Jana M, Baidya DK, Kumar R. Anderson-Hynes pyeloplasty with isthmotomy and lateropexy in horseshoe kidneys with pelviureteric junction obstruction in children. *Indian J Urol.* 2014 Apr;30(2):161-3. doi: 10.4103/0970-1591.126897. PubMed PMID: 24744513; PubMed Central PMCID: PMC3989816.

OBJECTIVE: The objective of this study was to evaluate the results of Anderson-Hynes pyeloplasty with isthmotomy and lateropexy in horseshoe kidney with pelviureteric junction obstruction (PUJO).

MATERIALS AND METHODS: Medical records of patients of horseshoe kidney with PUJO operated in our institute between June 1998 and June 2012 were reviewed. Anderson-Hynes pyeloplasty with isthmotomy and lateropexy was performed in all patients. The surgical outcome was evaluated with emphasis on the changes in degree of hydronephrosis by ultrasonography, renal drainage and function assessed by diuretic renal scans.

RESULTS: We studied the records of eight children of horseshoe kidney having unilateral PUJO. Obstruction was caused by a crossing lower-pole vessel in two cases, a high ureteral insertion in three and narrowing of the PUJ in three cases. Post-operative follow-up (median 4.4 years, range 18 months to 10 years) revealed improved renal function and good drainage in all cases. Hydronephrosis disappeared in 3, 4 showed Grade 1 and one showed Grade 2 hydronephrosis. All children are doing well and have no symptoms.

CONCLUSION: Anderson-Hynes pyeloplasty with isthmotomy and lateropexy is a highly effective and safe procedure for treating PUJO in horseshoe kidney in children.

PMCID: PMC3989816

PMID: 24744513 [PubMed]

109: Panda SS, Singh A, Bajpai M, Jana M. Horseshoe kidney with multicystic dysplastic left moiety. *J Indian Assoc Pediatr Surg.* 2014 Apr;19(2):118-9. doi: 10.4103/0971-9261.129612. PubMed PMID: 24741220; PubMed Central PMCID: PMC3983765.

PMCID: PMC3983765
PMID: 24741220 [PubMed]

110: Panigrahi MK, Kumar NN, Jaganathan V, Kumar SV. Pulmonary cryptococcosis with cryptococcal meningitis in an immunocompetent host. *Lung India.* 2014 Apr;31(2):152-4. doi: 10.4103/0970-2113.129847. PubMed PMID: 24778480; PubMed Central PMCID: PMC3999677.

Cryptococcosis is a systemic fungal infection associated with significant morbidity and mortality. It predominantly affects people with immunosuppression and human immunodeficiency virus infection. Extrapulmonary dissemination is rare in immunocompetent hosts. We present here a case of disseminated cryptococcosis in an immunocompetent patient who presented with an unusually large pulmonary mass and meningitis and successfully managed with medical therapy.

PMCID: PMC3999677
PMID: 24778480 [PubMed]

111: Parida GK, Dhull VS, Sharma P, Bal C, Kumar R. Pheochromocytoma presenting with remote bony recurrence twenty years after initial surgery: detection with 68Ga-DOTANOC PET/CT. *Clin Nucl Med.* 2014 Apr;39(4):365-6. doi: 10.1097/RLU.0b013e31828e98f0. PubMed PMID: 23640231.

Pheochromocytomas are rare tumors which can be malignant in 10% of cases. We present the case of a 75-year-old woman who presented with headache and palpitation for 1 year. She had a past history of right adrenalectomy for pheochromocytoma 20 years back. In between, the patient was asymptomatic. Twenty-four-hour urinary vanillylmandelic acid was raised. Noncontrast CT and ultrasound of abdomen were unremarkable. The patient underwent 68Ga-DOTANOC PET/CT that showed metastasis to left ilium, which was confirmed on biopsy.

PMID: 23640231 [PubMed - in process]

112: Patra BN, Khandelwal SK, Chadda RK, Ramakrishnan L. A controlled study of serum lipid profiles in Indian patients with depressive episode. *Indian J Psychol Med.* 2014 Apr;36(2):129-33. doi: 10.4103/0253-7176.130968. PubMed PMID: 24860211; PubMed Central PMCID: PMC4031578.

BACKGROUND: Lower levels of circulating lipid fractions and cholesterol are risk factors for impulsivity and depressive disorder. A lower level of serum cholesterol is also associated with patients presenting with history of self-harm.

MATERIALS AND METHODS: A total of 30 depressive patients and 30 healthy matched control subjects were recruited from the department of Psychiatry of a tertiary care hospital. We measured serum total cholesterol (TC), low-density lipoprotein (LDL) and high-density lipoprotein cholesterol and triglyceride levels of both patient and control group.

RESULTS: The serum TC and LDL-cholesterol levels were found to be significantly lower in study group than that of control group.

CONCLUSION: Lower levels of serum cholesterol are associated with depressive disorder.

PMCID: PMC4031578

PMID: 24860211 [PubMed]

113: Pattanayak RD. Alcohol-related seizures: Need for clarity. *Ann Indian Acad Neurol*. 2014 Apr;17(2):238-9. doi: 10.4103/0972-2327.132660. PubMed PMID: 25024586; PubMed Central PMCID: PMC4090861.

PMCID: PMC4090861

PMID: 25024586 [PubMed]

114: Perumal V. Reproductive risk factors assessment for anaemia among pregnant women in India using a multinomial logistic regression model. *Trop Med Int Health*. 2014 Jul;19(7):841-51. doi: 10.1111/tmi.12312. Epub 2014 Apr 7. PubMed PMID: 24708308.

OBJECTIVE: To assess reproductive risk factors for anaemia among pregnant women in urban and rural areas of India.

METHOD: The International Institute of Population Sciences, India, carried out third National Family Health Survey in 2005-2006 to estimate a key indicator from a sample of ever-married women in the reproductive age group 15-49 years. Data on various dimensions were collected using a structured questionnaire, and anaemia was measured using a portable HemoCue instrument. Anaemia prevalence among pregnant women was compared between rural and urban areas using chi-square test and odds ratio. Multinomial logistic regression analysis was used to determine risk factors.

RESULTS: Anaemia prevalence was assessed among 3355 pregnant women from rural areas and 1962 pregnant women from urban areas. Moderate-to-severe anaemia in rural areas (32.4%) is significantly more common than in urban areas (27.3%) with an excess risk of 30%. Gestational age specific prevalence of anaemia significantly increases in rural areas after 6 months. Pregnancy duration is a significant risk factor in both urban and rural areas. In rural areas, increasing age at marriage and mass media exposure are significant protective factors of anaemia. However, more births in the last five years, alcohol consumption and smoking habits are significant risk factors.

CONCLUSION: In rural areas, various reproductive factors and lifestyle characteristics constitute significant risk factors for moderate-to-severe anaemia. Therefore, intensive health education on reproductive practices and the impact of lifestyle characteristics are warranted to reduce anaemia prevalence.

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PMID: 24708308 [PubMed - in process]

115: Prakash K, Chandran DS, Khadgawat R, Jaryal AK, Deepak KK. Correction for blood pressure improves correlation between cerebrovascular reactivity assessed by breath holding and 6% CO₂ breathing. *J Stroke Cerebrovasc Dis*. 2014 Apr;23(4):630-5. doi: 10.1016/j.jstrokecerebrovasdis.2013.06.003. Epub 2013 Jul 4. PubMed PMID: 23830954.

BACKGROUND: Changes in cerebral blood flow velocity to hypercapnia are associated with changes in systemic blood pressure (BP). These confounding BP-dependent changes in cerebral blood flow velocity cause misinterpretation of cerebrovascular reactivity (CVR) results. The objective of the study was to determine the relationship between CVR assessed by breath holding and 6% CO₂ breathing after correcting for BP-dependent changes in cerebral blood flow velocity.

METHODS: In 33 patients of uncomplicated type 2 diabetes mellitus, CVR was

assessed as percentage changes in cerebral blood flow velocity and cerebrovascular conductance index.

RESULTS: Percentage change in cerebral blood flow velocity during breath holding was positively correlated with that of during 6% CO₂ breathing ($r = .35$; $P = .0448$). CVR during breath holding and 6% CO₂ breathing were better correlated when expressed as percentage changes in cerebrovascular conductance index ($r = .49$; $P = .0040$). Similarly, breath-holding test results expressed as percentage changes in cerebral blood flow velocity correctly identified only 37.5% of the poor reactors to 6% CO₂ breathing. However, when the breath-holding test results were expressed as percentage changes in cerebrovascular conductance index, 62.5% of the poor reactors to 6% CO₂ breathing were correctly identified indicating a better agreement between the test results obtained by the 2 methods.

CONCLUSION: Cerebrovascular response to breath holding is better correlated with that of 6% CO₂ breathing when changes in cerebral blood flow velocity were corrected for associated changes in BP.

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PMID: 23830954 [PubMed - in process]

116: Prakash S, Mandal P. Drug trials in psychiatry: methodological issues. *Asian J Psychiatr.* 2014 Apr;8:109-10. doi: 10.1016/j.ajp.2013.11.005. Epub 2013 Nov 26. PubMed PMID: 24655640.

Comment on

Asian J Psychiatr. 2013 Oct;6(5):364-8.

Asian J Psychiatr. 2013 Oct;6(5):401-3.

PMID: 24655640 [PubMed - in process]

117: Pramesh CS, Badwe RA, Borthakur BB, Chandra M, Raj EH, Kannan T, Kalwar A, Kapoor S, Malhotra H, Nayak S, Rath GK, Sagar TG, Sebastian P, Sarin R, Shanta V, Sharma SC, Shukla S, Vijayakumar M, Vijaykumar DK, Aggarwal A, Purushotham A, Sullivan R. Delivery of affordable and equitable cancer care in India. *Lancet Oncol.* 2014 May;15(6):e223-33. doi: 10.1016/S1470-2045(14)70117-2. Epub 2014 Apr 11. PubMed PMID: 24731888.

The delivery of affordable and equitable cancer care is one of India's greatest public health challenges. Public expenditure on cancer in India remains below US\$10 per person (compared with more than US\$100 per person in high-income countries), and overall public expenditure on health care is still only slightly above 1% of gross domestic product. Out-of-pocket payments, which account for more than three-quarters of cancer expenditures in India, are one of the greatest threats to patients and families, and a cancer diagnosis is increasingly responsible for catastrophic expenditures that negatively affect not only the patient but also the welfare and education of several generations of their family. We explore the complex nature of cancer care systems across India, from state to government levels, and address the crucial issues of infrastructure, manpower shortages, and the pressing need to develop cross-state solutions to prevention and early detection of cancer, in addition to governance of the largely unregulated private sector and the cost of new technologies and drugs. We discuss the role of public insurance schemes, the need to develop new political mandates and authority to set priorities, the necessity to greatly improve the quality of care, and the drive to understand and deliver cost-effective cancer care programmes.

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PMID: 24731888 [PubMed - indexed for MEDLINE]

118: Purkait S, Jain D, Madan K, Mathur S, Iyer VK. Combined small cell carcinoma of the lung: a case diagnosed on bronchoscopic wash cytology and bronchial biopsy. *Cytopathology*. 2014 Apr 16. doi: 10.1111/cyt.12145. [Epub ahead of print] PubMed PMID: 24734994.

PMID: 24734994 [PubMed - as supplied by publisher]

119: Quraishi R, Jain R, Balhara YP. Profile of nicotine use among alcohol dependent patients visiting a tertiary care center in north India. *Indian J Psychol Med*. 2014 Apr;36(2):174-8. doi: 10.4103/0253-7176.130987. PubMed PMID: 24860220; PubMed Central PMCID: PMC4031587.

BACKGROUND: Use of tobacco among alcohol dependent population is quite frequent. This co-morbidity increases the risk for various diseases. Understanding the pattern of tobacco use with co-morbid alcohol use may help in planning appropriate prevention/treatment strategies. The study aimed at examining the profile and pattern of nicotine use among alcohol dependent patients visiting a tertiary care treatment center in North India.

MATERIALS AND METHODS: Male patients fulfilling diagnostics and statistical manual of mental disorder fourth edition, criteria for nicotine and alcohol diagnostics and statistical dependence, attending the out-patient department of the tertiary care treatment center were recruited after obtaining informed consent. The socio-demographic profile, drug use history, nicotine associated health problems and general health problem were recorded. Motivation to stop tobacco use was assessed qualitatively using the direct questions about their interest and intentions to quit.

RESULTS: A total of 150 subjects were included in the study. The mean age of the study sample was 37.6 ± 10.44 years. Tobacco was reported as the gateway drug in 90% of the cases. Exclusive bidi use reported in 42% of the subjects. Mean duration of bidi and co-morbid alcohol use was higher than cigarette or smokeless tobacco use. Self-reported health problems associated with nicotine use and general health was reported by 41% and 39% of the subjects. Unsuccessful past quit attempts was present in 85% cases. More than 90% of subjects remained interested in quitting the tobacco use. An increased liver enzyme (aspartate transaminase, alanine transaminase and gamma-glutamyl transferase) were observed in 43, 32 and 47% of the cases.

CONCLUSION: The results suggest the nicotine and alcohol dependent patients represent a separate population requiring higher attention from the treating physician.

PMCID: PMC4031587

PMID: 24860220 [PubMed]

120: Ramakrishnan S, Bhargava B, Seth S, Airan B. Alcohol ablation of right ventricular outflow tract obstruction. *JACC Cardiovasc Interv*. 2014 Apr;7(4):443-5. doi: 10.1016/j.jcin.2013.06.023. Epub 2014 Mar 14. PubMed PMID: 24630874.

PMID: 24630874 [PubMed - in process]

121: Ramkumar S, Dhingra A, Jyotsna V, Ganie MA, Das CJ, Seth A, Sharma MC, Bal CS. Ectopic insulin secreting neuroendocrine tumor of kidney with recurrent hypoglycemia: a diagnostic dilemma. *BMC Endocr Disord*. 2014 Apr 17;14:36. doi: 10.1186/1472-6823-14-36. PubMed PMID: 24741994; PubMed Central PMCID: PMC4046058.

BACKGROUND: Hypoglycemia secondary to ectopic insulin secretion of non-pancreatic tumors is rare.

CASE PRESENTATION: We describe a middle aged woman with recurrent hypoglycemia. On evaluation, she was detected to have hyperinsulinemic hypoglycemia and right sided renal mass lesion. 68Ga-Dotanoc and 99mTc-HYNICTOC scans confirmed the intrarenal mass to be of neuroendocrine origin. Right nephrectomy was done and it turned out to be an insulin secreting neuroendocrine tumour. Neuroendocrine nature of this tumour was further confirmed by ultra-structural examination. Her hypoglycemia did not recur after resection of this tumour.

CONCLUSION: Few cases of ectopic insulin secretion have been reported though some are not proven convincingly. This case addresses all the issues raised in previous case reports and proves by clinical, laboratory, functional imaging and immunohistochemical analysis that ectopic origin of insulin by non-pancreatic tumors does occur. To our knowledge, this is the first reported case of ectopic insulinoma arising from the kidney.

PMCID: PMC4046058

PMID: 24741994 [PubMed - in process]

122: Rangasamy V, Kumar K, Rai A, Baidya DK. Sevoflurane and thoracic epidural anesthesia for trans-sternal thymectomy in a child with juvenile myasthenia gravis. *J Anaesthesiol Clin Pharmacol*. 2014 Apr;30(2):276-8. doi: 10.4103/0970-9185.130088. PubMed PMID: 24803774; PubMed Central PMCID: PMC4009656.

Literature on anesthetic management of juvenile myasthenia gravis (JMG) for thymectomy is limited. Recently, use of inhalational agents and total intravenous anesthesia with propofol and remifentanyl has been reported. All these techniques individually or in combination have been tried to avoid the use of muscle relaxant. We report successful use of sevoflurane as sole anesthetic agent for intubation and in combination with thoracic epidural anesthesia for intraoperative anesthetic management in a 5-year-old child with JMG.

PMCID: PMC4009656

PMID: 24803774 [PubMed]

123: Rastogi D, Meena S, Sharma V, Singh GK. Epidemiology of patients admitted to a major trauma centre in northern India. *Chin J Traumatol*. 2014 Apr 1;17(2):103-7. PubMed PMID: 24698580.

OBJECTIVE: Trauma in India is an increasingly significant problem, particularly in light of rapid development and increasing motorization. Social changes are resulting in alterations in the epidemiology of trauma. The aim of the study was to assess the various epidemiological parameters that influence the cause of injury in the patients admitted to a major trauma centre in northern India.

METHODS: An observational study of 748 patients chosen by random assortment was carried out over a period of 1 year (August 2008 to July 2009). Age, sex, injury type and pattern were noted. Injury mode of upper and lower limbs was also noted.

RESULTS: Injuries occur predominately in the age group of 15-30 years. Males incurred more injury with male to female ratio of 6:1. The most vulnerable group was motorcycle users. Among the injured, farmers were the most commonly involved. Blunt injuries (94.92%) were much more common than penetrating injuries. Among patients with head injury, two-wheeler related accidents were the most common (40.3%). Most spinal cord injuries were caused by falls from height (51.09%). Most lower limb fractures were simple type. Compound fractures of the lower limb were more common than upper limb fractures.

CONCLUSION: Strict enforcement of traffic rules, combined with improved infrastructure and behavior change can decrease the burden of road traffic accidents in India and other developing countries. This study could assist in raising the profile of road traffic accidents as a public health problem which needs to be addressed as a preventable cause of mortality and morbidity, and planning appropriate interventions for this major challenge. Preventive strategies should be made on the basis of these epidemiological trends.

PMID: 24698580 [PubMed - in process]

124: Roy KK, Negi N, Subbaiah M, Kumar S, Sharma JB, Singh N. Effectiveness of estrogen in the prevention of intrauterine adhesions after hysteroscopic septal resection: a prospective, randomized study. *J Obstet Gynaecol Res.* 2014 Apr;40(4):1085-8. doi: 10.1111/jog.12297. Epub 2014 Feb 26. PubMed PMID: 24612233.

AIM: The aim of this prospective randomized study was to evaluate the efficacy of estrogen in preventing intrauterine adhesions following hysteroscopic septal resection and to investigate its effect on reproductive outcome.

MATERIALS AND METHODS: After hysteroscopic septal resection, 90 women received either estrogen or placebo (n=45 per group) for 30 days. A second-look hysteroscopy was performed after 2 months. All pregnancies occurring during the study period were recorded.

RESULTS: Adhesions developed in three of 43 (6.9%) patients in the control group compared to none in the estrogen group. This difference was not statistically significant (P=0.24). Regarding reproductive outcome, the differences between the two groups were also not significant.

CONCLUSION: Estrogen treatment was not found to prevent intrauterine adhesions or improve reproductive outcome after hysteroscopic septal resection.

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PMID: 24612233 [PubMed - in process]

125: Sahni K, Gupta V, Khanna N. Hyperpigmentation in photo exposed patches of vitiligo following tacrolimus therapy. *Indian Dermatol Online J.* 2014 Apr;5(2):164-6. doi: 10.4103/2229-5178.131090. PubMed PMID: 24860752; PubMed Central PMCID: PMC4030345.

Vitiligo is an acquired pigmentary disorder, clinically characterized by depigmented macules caused by destruction of melanocytes in the affected skin. Half of all patients develop the disease in childhood and adolescence before the age of 20 years, making vitiligo an important skin disease of childhood. There are numerous studies in the literature that suggest the efficacy of topical tacrolimus in vitiligo, without serious adverse effects. We describe a case of vitiligo in a pediatric patient who developed hyperpigmentation in the periorbital lesions of vitiligo with the use of topical tacrolimus. To the best of our knowledge, this is only the second such reported occurrence in a patient with vitiligo.

PMCID: PMC4030345

PMID: 24860752 [PubMed]

126: Samanta S, Samanta S, Jha A. Author reply. *J Pharmacol Pharmacother.* 2014 Apr;5(2):171-2. PubMed PMID: 24799828; PubMed Central PMCID: PMC4008923.

PMCID: PMC4008923

PMID: 24799828 [PubMed]

127: Sehra SV, Titiyal JS, Sharma N, Tandon R, Sinha R. Change in corneal microstructure with rigid gas permeable contact lens use following collagen cross-linking: an in vivo confocal microscopy study. *Br J Ophthalmol*. 2014 Apr;98(4):442-7. doi: 10.1136/bjophthalmol-2013-303934. Epub 2013 Dec 24. PubMed PMID: 24368629.

AIM: To study corneal microstructural changes with use of rigid gas permeable contact lenses (CLs) in keratoconus patients following collagen cross-linking (CXL).

METHODS: In a prospective, non-randomised, comparative case series, keratoconus patients with documented progression were offered CXL (365 nm, 3 mW/cm², 30 min with 0.1% riboflavin). Patients who refused CXL were fitted with CL and followed up for 6 months (keratoconus (KL)-CL; 25 eyes). Patients who underwent CXL were either fitted with CL 3 months after the procedure (CXL-CL; 26 eyes) or followed up with only spectacle correction (CXL-SL; 21 eyes). Outcome measures of over-refraction and corneal microstructure (confocal microscopy) were evaluated at time of CXL and 1, 2, 3, 4, 6 and 9 months after CXL.

RESULTS: There was a myopic shift in over-refraction by 0.37 D in CXL-CL ($p=0.00$), and 16/26 eyes required prescription of spectacles over CL to provide optimum vision; change in over-refraction was not seen in KC-CL. Patients using CL (CXL-CL and KC-CL) showed evidence of epithelial cell stress with increase in the superficial epithelial cell size and decrease in basal epithelial cell density. They also had a decrease in corneal sub-basal nerve plexus (CSNP) density and branching. Patients using spectacles after CXL showed regeneration of the sub-basal nerve plexus. Stromal keratocyte regeneration was unaffected with CL use.

CONCLUSIONS: CL use after CXL is associated with a delay in the regeneration of the CSNP and epithelial cell stress.

PMID: 24368629 [PubMed - indexed for MEDLINE]

128: Senapati S, Singh S, Das M, Kumar A, Gupta R, Kumar U, Jain S, Juyal RC, Thelma BK. Genome-wide analysis of methotrexate pharmacogenomics in rheumatoid arthritis shows multiple novel risk variants and leads for TYMS regulation. *Pharmacogenet Genomics*. 2014 Apr;24(4):211-9. doi: 10.1097/FPC.000000000000036. PubMed PMID: 24583629.

OBJECTIVE: Methotrexate (MTX) is the drug of first choice for the treatment of rheumatoid arthritis (RA), but is effective only in around 60% of the patients. Identification of genetic markers to predict response is essential for effective treatment within a critical window period of 6 months after diagnosis, but have been hitherto elusive. In this study, we used genome-wide genotype data to identify the potential risk variants associated with MTX (poor) response in a north Indian RA cohort.

MATERIALS AND METHODS: Genome-wide genotyping data for a total of 457 RA patients [297 good (DAS28-3 \leq 3.2) and 160 poor (DAS28-3 \geq 5.1) responders] on MTX monotherapy were tested for association using an additive model. Support vector machine and genome-wide pathway analysis were used to identify additional risk variants and pathways. All risk loci were imputed to fine-map the association signals and identify causal variant(s) of therapeutic/diagnostic relevance.

RESULTS: Seven novel suggestive loci from genome-wide ($P\leq 5\times 10^{-8}$) and three from support vector machine analysis were associated with MTX (poor) response. The

associations of published candidate genes namely DHFR (P=0.014), FPGS (P=0.035), and TYMS (P=0.005) and purine and nucleotide metabolism pathways were reconfirmed. Imputation, followed by bioinformatic analysis indicated possible interaction between two reversely oriented overlapping genes namely ENOSF1 and TYMS at the post-transcriptional level.

CONCLUSION: In this first ever genome-wide analysis on MTX treatment response in RA patients, 10 new risk loci were identified. These preliminary findings warrant replication in independent studies. Further, TYMS expression at the post-transcriptional level seems to be probably regulated through an antisense-RNA involving the 6-bp ins/del marker in the overlapping segment at 3'UTR of TYMS-ENOSF1, a finding with impending pharmacogenetic applications.

PMID: 24583629 [PubMed - in process]

129: Sethuraman G, Bhari N. Common skin problems in children. *Indian J Pediatr.* 2014 Apr;81(4):381-90. doi: 10.1007/s12098-013-1271-9. Epub 2013 Dec 22. PubMed PMID: 24362956.

Childhood dermatological problems contribute about one-third of all consultations in the setting of both pediatrics and dermatology outpatient services. Skin disorders in children may cause anxiety to parents. General Practitioners should be familiar with the common prevalent skin problems as immediate pediatric dermatology consultation may not be possible. Infections, infestations and dermatitis are the most prevalent diseases among Indian children. The scope of this review is to briefly highlight these common and other important dermatological problems in children.

PMID: 24362956 [PubMed - in process]

130: Sharma N, Memon A, Sharma AK, Dutt V, Sharma M. Correlation of radiological investigations with clinical findings in cases of abdominal mass in the paediatric age group. *Afr J Paediatr Surg.* 2014 Apr-Jun;11(2):132-7. doi: 10.4103/0189-6725.132803. PubMed PMID: 24841013.

BACKGROUND: The aim of the following study is to find out the accuracy of clinical examination and radiological investigations in determining the organ of origin and diagnosis in cases of abdominal mass.

PATIENTS AND METHODS: This prospective study included patients presenting with a palpable abdominal mass. Complete detailed history and clinical examination were done prior to any investigation to find out the possible clinical diagnosis and determine the organ of origin. Radiological investigations were done by blinded senior radiologist to form a radiological diagnosis and determine the organ of origin. Final diagnosis was used to see the accuracy of both the pre-operative modalities.

RESULTS: There were 50 cases which formed the study group. Male to female ratio was 2:1. Prepubescent age was the most common age group at presentation. Right hypochondrium was the most commonly affected quadrant (18%). Most of these masses were hepatobiliary in origin. The overall accuracy of ultrasound with respect to the final diagnosis was 45/50 (90%). Ultrasonography findings correlated with a clinical diagnosis in 91% of those who were operated and in 88% in those confirmed by biopsy or other modalities. Radiological investigations in total had accuracy of 94%, which was similar to the clinical examination. Both radiological diagnosis and clinical diagnosis were correct in 47/50 (94%) cases.

CONCLUSIONS: Most of the cases of abdominal mass can be well evaluated clinically in terms of the diagnosis and organ of origin. Both radiological investigation and a good clinical examination have equal sensitivity. Radiological investigations are thus only adjuvant to a good clinical examination.

PMID: 24841013 [PubMed - in process]

131: Sharma N, Bajpai M, Kumar A, Paul S, Jana M. Portal hypertension: A critical appraisal of shunt procedures with emphasis on distal splenorenal shunt in children. *J Indian Assoc Pediatr Surg.* 2014 Apr;19(2):80-4. doi: 10.4103/0971-9261.129599. PubMed PMID: 24741210; PubMed Central PMCID: PMC3983772.

BACKGROUND: Extrahepatic portal venous obstruction (EHPVO) is the most common cause of pediatric portal hypertension. We analyzed the investigative protocol and results of portosystemic shunts in this group of patients.

MATERIALS AND METHODS: A total of 40 consecutive children aged below 12 years operated with a diagnosis of extra-hepatic portal hypertension formed the study group. Historical data and clinical data were collected. All patients underwent upper gastrointestinal endoscopy, ultrasound Doppler and computed tomographic portogram pre-operatively and post-operatively. Results with respect to shunt patency, hypersplenism and efficacy of different radiological investigations were collected.

RESULTS: A total of 40 patients, 28 boys and 12 girls constituted the study group. Lienorenal shunt (LRS) was performed in 14 patients; distal splenorenal shunt in 21 patients and side-to-side lienorenal shunt in 4 patients, inferior mesenteric renal shunt was performed in 1 patient. Follow-up ranged from 36 to 70 months. At a minimum follow-up of 3 years, 32 (80%) patients were found to have patent shunts. Patent shunts could be visualized in 30/32 patients with computer tomographic portogram (CTP) and 28/32 with ultrasound. Varices regressed completely in 26/32 patients and in the rest incomplete regression was seen. Spleen completely regressed in 19/25 patients. Hypersplenism resolved in all patients with patent shunts.

CONCLUSIONS: Portosystemic shunting in children with EHPVO is a viable option. While long-term cure rates are comparable with sclerotherapy, repeated hospital visits are reduced with one time surgery. Pre-operative and post-operative assessment can be performed with complimentary use of ultrasound, CTP and endoscopy.

PMCID: PMC3983772

PMID: 24741210 [PubMed]

132: Sharma P, Arora S, Karunanithi S, Khadgawat R, Durgapal P, Sharma R, Kandasamy D, Bal C, Kumar R. Somatostatin receptor based PET/CT imaging with ⁶⁸Ga-DOTA-Nal3-Octreotide for localisation of clinically and biochemically suspected insulinoma. *Q J Nucl Med Mol Imaging.* 2014 Apr 17. [Epub ahead of print] PubMed PMID: 24740163.

AIM: Localisation of primary tumor in insulinoma is often difficult. We evaluated the role of ⁶⁸Ga-DOTA-Nal3-Octreotide (DOTANOC) PET/CT for localisation of primary tumor in patients with clinical and biochemical suspicion of insulinoma.

METHODS: Data of 35 patients (Age: 38.4±16.5 years) who underwent ⁶⁸Ga-DOTANOC PET/CT for clinical and biochemical suspicion of insulinoma (hypoglycemia, raised serum insulin and C-peptide levels) were retrospectively analyzed. PET/CT images were evaluated visually and semiquantitatively (SUV) by two experienced nuclear medicine physicians. A definite lesion in pancreas on non contrast CT showing increased ⁶⁸Ga-DOTANOC was taken as positive. In the absence of CT lesion focal ⁶⁸Ga-DOTANOC uptake in the pancreas more than liver was taken as positive. All patients had also undergone conventional imaging (CIM) [CT/MRI/endosonography] and their reports were retrieved for comparison. Histopathology and/or

imaging/clinical/biochemical follow up (minimum 6 months) was used as reference standard.

RESULTS: The mean serum insulin levels was 51.6 ± 54 μ IU/ml and C-peptide level was 6.9 ± 7.3 ng/ml. ^{68}Ga -DOTANOC-PET/CT was interpreted as positive in 11 patients (31.5%) and negative in 24 (68.5%). PET/CT demonstrated total 16 pancreatic lesions in 11 patients. In two patients it also showed both liver and lymph nodal metastases. ^{68}Ga -DOTANOC PET/CT was true positive in 8, true negative in 1, false positive in 3 and false negative in 23 patients. Per patient based sensitivity of PET/CT was 25.8% (95% CI: 11.844.6), specificity was 25% (95% CI: 0.680.5) and accuracy was 25.7%. The mean SUVmax of pancreatic lesions was 13.8 ± 11.1 . On comparison no significant difference was seen between CIM and PET/CT on patient based ($P=1.00$) or lesion based comparison ($P=0.790$).

CONCLUSIONS: ^{68}Ga -DOTANOC PET/CT has limited utility for localising the primary tumor in patients with clinical and biochemical suspicion of insulinoma. However, it might be useful for differentiating benign and malignant insulinoma. Further prospective comparative studies are warranted.

PMID: 24740163 [PubMed - as supplied by publisher]

133: Sharma P, Purohit P. Lead exposure exacerbates cardiovascular risk. *Indian J Clin Biochem.* 2014 Apr;29(2):117-8. doi: 10.1007/s12291-014-0430-8. PubMed PMID: 24757290; PubMed Central PMCID: PMC3990792.

PMCID: PMC3990792 [Available on 2015/4/1]

PMID: 24757290 [PubMed]

134: Sharma P, Ping L. Calcium ion influx in microglial cells: physiological and therapeutic significance. *J Neurosci Res.* 2014 Apr;92(4):409-23. doi: 10.1002/jnr.23344. Epub 2014 Jan 24. PubMed PMID: 24464907.

Microglial cells, the immunocompetent cells of the central nervous system (CNS), exhibit a resting phenotype under healthy conditions. In response to injury, however, they transform into an activated state, which is a hallmark feature of many CNS diseases. Factors or agents released from the neurons, blood vessels, and/or astrocytes could activate these cells, leading to their functional and structural modifications. Microglial cells are well equipped to sense environmental changes within the brain under both physiological and pathological conditions. Entry of calcium ions (Ca^{2+}) plays a critical role in the process of microglial transformation; several channels and receptors have been identified on the surface of microglial cells. These include store-operated channel, Orai1, and its sensor protein, stromal interaction molecule 1 (STIM1), in microglial cells, and their functions are modulated under pathological stimulations. Transient receptor potential (TRP) channels and voltage- and ligand-gated channels (ionotropic and metabotropic receptors) are also responsible for Ca^{2+} influx into the microglial cells. An elevation of intracellular Ca^{2+} concentration subsequently regulates microglial cell functions by activating a diverse array of Ca^{2+} -sensitive signaling cascades. Perturbed Ca^{2+} homeostasis contributes to the progression of a number of CNS disorders. Thus, regulation of Ca^{2+} entry into microglial cells could be a pharmacological target for several CNS-related pathological conditions. This Review addresses the recent insights into microglial cell Ca^{2+} influx mechanisms, their roles in the regulation of functions, and alterations of Ca^{2+} entry in specific CNS disorders.

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PMID: 24464907 [PubMed - in process]

135: Sharma P, Dhull VS, Bal C, Malhotra A, Kumar R. 68Ga-DOTANOC PET/CT imaging in glomus laryngicum. *Clin Nucl Med*. 2014 Apr;39(4):379-80. doi: 10.1097/RLU.0b013e31829af94d. PubMed PMID: 23877522.

Glomus laryngicum (laryngeal paraganglioma) are extremely rare neoplasm of the larynx. We here present the 68Ga-DOTANOC PET/CT images of a 40-year-old male patient with glomus laryngicum. In this report, we have highlighted the potential utility and limitations of 68Ga-DOTANOC PET/CT imaging in patients with glomus laryngicum.

PMID: 23877522 [PubMed - in process]

136: Sharma P, Dhull VS, Suman S, Bal C, Malhotra A, Kumar R. 68Ga-DOTANOC somatostatin receptor PET-CT imaging in multiple myeloma. *Clin Nucl Med*. 2014 Apr;39(4):374-5. doi: 10.1097/RLU.0b013e31828e9722. PubMed PMID: 23640227.

Multiple myeloma cells express somatostatin receptors, and somatostatin receptor scintigraphy with ¹¹¹In-pentetreotide has been used for imaging multiple myeloma with variable success. We here present 68Ga-DOTANOC somatostatin receptor PET-CT findings in a 57-year-old man with multiple myeloma. PET-CT showed 2 expansile lytic lesions with increased 68Ga-DOTANOC. This case highlights the potential use of 68Ga-DOTANOC PET-CT as an alternative imaging modality in multiple myeloma.

PMID: 23640227 [PubMed - in process]

137: Sharma S, Kaushik S, Sinha M, Kushwaha GS, Singh A, Sikarwar J, Chaudhary A, Gupta A, Kaur P, Singh TP. Structural and functional insights into peptidyl-tRNA hydrolase. *Biochim Biophys Acta*. 2014 Jul;1844(7):1279-88. doi: 10.1016/j.bbapap.2014.04.012. Epub 2014 Apr 21. Review. PubMed PMID: 24768774.

Peptidyl-tRNA hydrolase is an essential enzyme which acts as one of the rescue factors of the stalled ribosomes. It is an esterase that hydrolyzes the ester bond in the peptidyl-tRNA molecules, which are products of ribosome stalling. This enzyme is required for rapid clearing of the peptidyl-tRNAs, the accumulation of which in the cell leads to cell death. Over the recent years, it has been heralded as an attractive drug target for antimicrobial therapeutics. Two distinct classes of peptidyl-tRNA hydrolase, Pth and Pth2, have been identified in nature. This review gives an overview of the structural and functional aspects of Pth, along with its sequence and structural comparison among various species of bacteria. While the mode of binding of the substrate to Pth and the mechanism of hydrolysis are still speculated upon, the structure-based drug design using this protein as the target is still largely unexplored. This review focuses on the structural features of Pth, giving a direction to structure-based drug design on this protein.

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PMID: 24768774 [PubMed - indexed for MEDLINE]

138: Sharma S, Ghosh S, Singh LK, Sarkar A, Malhotra R, Garg OP, Singh Y, Sharma RS, Bhakuni DS, Das TK, Biswas S. Identification of autoantibodies against transthyretin for the screening and diagnosis of rheumatoid arthritis. *PLoS One*. 2014 Apr 8;9(4):e93905. doi: 10.1371/journal.pone.0093905. eCollection 2014. PubMed PMID: 24714506; PubMed Central PMCID: PMC3979706.

Rheumatoid arthritis (RA) is a chronic, autoimmune, systemic and inflammatory rheumatic disease that leads to inflammation of the joints and surrounding tissues. Identification of novel protein(s) associated with severity of RA is a prerequisite for better understanding of pathogenesis of this disease that may also have potential to serve as novel biomarkers in the diagnosis of RA. Present

study was undertaken to compare the amount of autoantigens and autoantibodies in the plasma of RA patients in comparison to healthy controls. Plasma samples were collected from the patients suffering from RA, Osteoarthritis (OA), Systemic lupus erythematosus (SLE) and healthy volunteers. The screening of plasma proteins were carried out using 2-dimensional gel electrophoresis followed by identification of differentially expressed protein by MALDI-TOF MS/MS. Among several differentially expressed proteins, transthyretin (TTR) has been identified as one of the protein that showed significantly up regulated expression in the plasma of RA patients. The results were further validated by Western blot analysis and ELISA. In comparison to OA synovium, an exclusive significantly high expression of TTR in RA has been validated through IHC, Western blotting and IEM studies. Most importantly, the increase in expression of TTR with the progression of severity of RA condition has been observed. The autoantibodies against TTR present in the RA plasma were identified using immunoprecipitation-Western methods. The significant production of autoantibodies was validated by ELISA and Western blot analysis using recombinant pure protein of TTR. Hence, these novel observations on increase in TTR expression with the increase in severity of RA conditions and significant production of autoantibodies against TTR clearly suggest that a systematic studies on the role TTR in the pathogenesis of RA is immediately required and TTR may be used as a serum diagnostic marker together with other biochemical parameters and clinical symptoms for RA screening and diagnosis.

PMCID: PMC3979706

PMID: 24714506 [PubMed - in process]

139: Sharma SK, Kumar S, Vijayakumar AR, Seth T, Mishra P, Mahapatra M, Sazawal S, Velpandian T, Saxena R. Utility of the trough plasma imatinib level monitoring at two time points in patients with the chronic myeloid leukemia-chronic phase. *J Cancer Res Ther.* 2014 Apr-Jun;10(2):305-8. doi: 10.4103/0973-1482.136583. PubMed PMID: 25022382.

Introduction: Plasma imatinib levels vary widely in patients with the chronic myeloid leukemia-chronic phase, and studies have shown improved hematological, cytogenetic, and molecular responses in patients with the higher trough imatinib levels. **Materials and Methods:** We analyzed 50 consecutive patients with the chronic myeloid leukemia-chronic phase and performed plasma imatinib levels at 1 month and 12 months and correlated them with complete hematological response at 3 months and molecular response at 12 months, respectively. **Results:** Trough plasma imatinib levels at 1 month correlated well with complete hematological response at 3 months ($P = 0.007$) and levels at 12 months correlated with molecular response at 12 months ($P = 0.04$). Compliance to imatinib also significantly correlated with imatinib levels at 1 month ($P = 0.0008$) and imatinib levels at 12 months ($P = 0.0002$). **Conclusion:** Plasma imatinib levels may be of benefit in patients not achieving desired response at defined time intervals. The plasma level monitoring also helps in the assessment of drug compliance.

PMID: 25022382 [PubMed - in process]

140: Sharma VK, Raj D, Xess I, Lodha R, Kabra SK. Prevalence and risk factors for allergic bronchopulmonary aspergillosis in Indian children with cystic fibrosis. *Indian Pediatr.* 2014 Apr;51(4):295-7. PubMed PMID: 24825267.

OBJECTIVES: Allergic bronchopulmonary aspergillosis (ABPA) is a common complication in patients with cystic fibrosis. This cross-sectional study was planned to determine the prevalence and risk factors for ABPA in Indian children with cystic fibrosis.

METHODS: Clinical evaluation, spirometry, chest radiograph, sputum, total IgE, specific IgE for *Aspergillus fumigatus*, IgG precipitins and skin prick tests were

done in 33 CF patients.

RESULTS: Prevalence of allergic bronchopulmonary aspergillosis was 18.2% (95% CI 6.9% - 35.4%): allergic bronchopulmonary aspergillosis was higher in patients with low cystic fibrosis score, age >12 years, atopy, and eosinophilia.

CONCLUSION: Prevalence of ABPA is higher in Indian children with cystic fibrosis.

PMID: 24825267 [PubMed - in process]

141: Singh A, Purohit BM, Masih N, Kahndelwal PK. Risk factors for oral diseases among workers with and without dental insurance in a national social security scheme in India. *Int Dent J.* 2014 Apr;64(2):89-95. doi: 10.1111/idj.12067. Epub 2013 Oct 21. PubMed PMID: 24138126.

OBJECTIVES: The target population for this cross sectional study comprises subjects with and without social security in a national social security scheme. The study aimed to compare and assess the risk factors for oral diseases among insured (organised sector) and non-insured workers (unorganised sector) in New Delhi, India.

METHODS: The sample comprised a total of 2,752 subjects. Of these, 960 workers belonged to the formal or organised sector with a social security and dental health insurance and 1,792 had no social security or dental insurance from the informal or unorganised sector.

RESULTS: Significant differences were noted between the two groups for literacy levels, between-meal sugar consumption, tobacco-related habits and utilisation of dental care. Bleeding/calculus and periodontal pockets were present among 25% and 65.4% of insured workers, respectively. Similarly, 13.6% and 84.5% of non-insured workers had bleeding/calculus and periodontal pockets, respectively. The mean DMFT (decayed, missing, filled teeth) value among the insured workers and non-insured workers was 3.27 ± 1.98 and 3.75 ± 1.80 , respectively. The association between absence of health insurance and dental caries was evident with an odds ratio (OR) of 1.94. Subjects with below graduate education were more prone to dental caries (OR = 1.62). Subjects who cleaned their teeth two or more times a day were less likely to have dental caries (OR = 1.47). Utilisation of dental care was inversely related to dental caries (OR = 1.25).

CONCLUSION: The major risk factors for oral diseases in both the groups with similar socio-economic status were the lack of social security and health insurance, low literacy levels, high tobacco consumption and low levels of dental care utilisation.

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PMID: 24138126 [PubMed - indexed for MEDLINE]

142: Singh S, Shukla G, Goyal V, Srivastava AK, Singh MB, Vibha D, Behari M. Impact of sleep on the localizing value of video EEG in patients with refractory focal seizures - A prospective video-EEG with EOG and submental EMG study. *Clin Neurophysiol.* 2014 Apr 4. pii: S1388-2457(14)00172-2. doi: 10.1016/j.clinph.2014.03.021. [Epub ahead of print] PubMed PMID: 24856459.

OBJECTIVES: To examine the role of sleep and its stages on the localizing value of video EEG in the evaluation of refractory focal seizures.

METHODS: Video-electroencephalographic (VEEG) evaluation with additional polygraphic recording was carried out for 70 consecutive patients with refractory focal epilepsy, undergoing pre-surgical evaluation, over a two-year period. Localization of video EEG for each seizure was made based on clinical, ictal and interictal data. Seizure localization in each patient was assessed for

concordance with MRI and other imaging data (SPECT, PET) for both wake and sleep seizures. Interictal discharges in sleep and wake were similarly compared for concordance with imaging data.

RESULTS: A total of 608 seizures were recorded in 70 patients, 289 in sleep. Overall, concordance with imaging data was found in 218 out of 322 wake seizures (67.8%) and in 157 out of 286 sleep seizures (54.8%) ($p=0.0314$). On analyzing the subset of patients with seizures recorded in both wake and sleep states (total 279 seizures recorded, 113 out of sleep), concordance was observed in 93 out of 166 (56%) wake seizures and in 80 out of 113 (70.7%) sleep seizures (OR 2.03, 95% CI 1.17 to 3.56; p 0.007). Interictal discharges were more common and more precisely localizing in sleep, mostly in stage N2.

CONCLUSIONS: This prospective VEEG-PSG study demonstrates the role of sleep versus wake state in the localizing value of different components of long-term VEEG recording for patients with medically refractory epilepsy. Our findings show that while wake state ictal EEG has more localizing value in a mixed group of patients, sleep ictal and interictal EEG is significantly more useful in patients who have seizures recorded both during wake and sleep states. In addition, interictal discharges recorded during NREM sleep have high localizing value.

SIGNIFICANCE: This is only the second study elucidating the effect of sleep on the localizing value of video-electroencephalographic evaluation of patients with medically refractory focal epilepsy; mainly revealing high value of sleep interictal discharges and that sleep ictal recording has two times higher localizing value than wake ictal recording, among patients in whom seizures are recorded in both states.

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PMID: 24856459 [PubMed - as supplied by publisher]

143: Singh S, Singh N, Gulati GS, Ramakrishnan S, Kumar G, Sharma S, Bahl VK. Dual-source computed tomography for chronic total occlusion of coronary arteries. Catheter Cardiovasc Interv. 2014 Apr 16. doi: 10.1002/ccd.25516. [Epub ahead of print] PubMed PMID: 24740894.

OBJECTIVES: We compared dual-source CT (DSCT) and conventional angiography (CA) in evaluation of chronic total occlusion (CTO) of coronary arteries.

BACKGROUND: Percutaneous coronary intervention (PCI) in CTO is technically difficult and has comparatively lower success rate than intervention in non-occluded artery. Accurate assessment of lesion morphology is an important determinant of PCI success in CTO.

METHODS: Nineteen symptomatic patients (18 men, age: 58.6 ± 10.6 years) with a CTO on CA were subjected to a DSCT (Definition, Siemens, Germany). Heart rate (HR) control was not performed. Dedicated post-processing software was used for lesion analysis on both modalities. Presence of bridging collaterals, stump morphology, calcification, side branch, proximal tortuosity, occlusion length, distal vessel interpretability, and distal lesions were statistically compared.

RESULTS: There were 20 CTOs. HR during DSCT ranged from 53 to 131 bpm. Bridging collaterals were seen in 3/20 (15%) lesions on CA and in none on DSCT. Stump anatomy and side branch were identified equally well. Plaque calcification was identified in 5/20 (25%) lesions on CA and in 12/20 (60%) lesions on DSCT ($P=0.025$). Nature and extent of calcification were better visualized on DSCT. No proximal tortuosity was noted. Distal vessel was better interpretable on DSCT

(15/20; 75%) compared to CA (9/20; 45%) (P=0.05). No significant difference in lesion length was noted.

CONCLUSION: DSCT performs as well as CA for most features of CTO. Avoidance of need to control HR, ability to better detect and characterize calcium and to interpret distal vessels make it a useful pre-intervention investigation. © 2014 Wiley Periodicals, Inc.

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PMID: 24740894 [PubMed - as supplied by publisher]

144: Singhal A, Peepre K, Damle NA, Mukherjee A, Bal C, Tripathi M. Urinoma in a young child 6 months following dual cadaveric renal transplantation detected on technetium-99m ethylene dicysteine renal dynamic scan confirmed on SPECT/CT. Indian J Nucl Med. 2014 Apr;29(2):128-30. doi: 10.4103/0972-3919.130326. PubMed PMID: 24761075; PubMed Central PMCID: PMC3996773.

PMCID: PMC3996773

PMID: 24761075 [PubMed]

145: Sinha R, Talawar P, Ramachandran R, Azad R, Mohan VK. Perioperative management and post-operative course in preterm infants undergoing vitreo-retinal surgery for retinopathy of prematurity: A retrospective study. J Anaesthesiol Clin Pharmacol. 2014 Apr;30(2):258-62. doi: 10.4103/0970-9185.130050. PubMed PMID: 24803769; PubMed Central PMCID: PMC4009651.

BACKGROUND: Premature infants scheduled for surgery under general anesthesia are more prone to cardio-respiratory complications. Risk factors include post-conception age (PCA), cardiac and respiratory disease, anemia and opioid administration. This retrospective study evaluates the perioperative management and post-operative course (apnea and bradycardia) in premature infants undergoing surgery for retinopathy of prematurity (ROP).

MATERIALS AND METHODS: We analyzed the pre-operative data, anesthesia chart and post-operative course of 52 former premature infants for 56 general anesthesia exposures for ROP surgery.

RESULTS: At the time of procedure, median PCA was 51 (36-60) weeks. 71% of the infants were above 46 weeks of PCA. Five infants had cardiac disease and four had a history of convulsion. Four infants had a pre-operative history of apneic spells. The airway was secured with either endotracheal tube (46) or supraglottic device (10). Fentanyl (0.5-1 µg/kg), paracetamol, topical anesthetic drops and/or peribulbar block were administered for analgesia. Extubation was performed in the operating room for 54 cases. Three infants had apnea post-operatively. Seven infants were shifted to neonatal intensive care unit either for observation or due to delayed recovery, persistent apneic spells and pre-existing cardio-respiratory disease.

CONCLUSION: In the present study, intravenous paracetamol and topical anesthetics reduced the total intra-operative opioid requirement, which resulted in low incidence of post-operative apnea. Regional anesthesia may be considered in infants with high risk of post-operative apnea. Infants with PCA > 42 weeks and without any co-morbidity can be managed in post-anesthesia care unit.

PMCID: PMC4009651

PMID: 24803769 [PubMed]

146: Sinha S, Sarkari A, Mahapatra AK, Sharma BS. Pediatric giant pituitary adenomas: are they different from adults? A clinical analysis of a series of 12

patients. Childs Nerv Syst. 2014 Aug;30(8):1405-11. doi: 10.1007/s00381-014-2421-8. Epub 2014 Apr 29. PubMed PMID: 24777295.

OBJECTIVES: To evaluate clinical presentation and microsurgical outcome of giant pituitary adenomas (GPAs) in pediatric age.

METHODS: All patients <18 years, who were operated on at our center for GPA (tumor >40 mm in maximum diameter) were included in study. Clinical features, hormonal profile, radiology, surgical approach, results and complications were analysed.

RESULTS: A total of 12 children with GPA were managed microsurgically. Visual deterioration (73 %) was most common presentation. Functioning adenomas were found in 83 % patients, with prolactinomas being most common. Twelve patients underwent a total of 16 microsurgical procedures, with a single surgery done in eight (75 %) patients. Out of the 12 primary surgeries, eight (67 %) were performed trans-sphenoidally. A near-total excision (>90 % tumor removal) could be achieved in six (50 %) patients. Visual improvement was observed in 44 % patients. However, there was no improvement in those where the eye was negative to perception of light prior to surgery. At the last follow-up, all the patients with functioning adenomas were in hormonal remission, and there was no residual/recurrent tumor in patients with non-functional adenomas. 25 % experienced single or multiple perioperative or postoperative complications. There was one perioperative death (8 %).

CONCLUSIONS: GPAs are very rare in the pediatric population, with majority being functional and more aggressive in nature as compared to in adults. However, most of them can be approached trans-sphenoidally. The combination of surgery and radiotherapy, as well as medical therapy with bromocriptine, achieves good tumor control, despite a high rate of residual tumor and tumor recurrence.

PMID: 24777295 [PubMed - in process]

147: Sinha S, Kale SS, Chandra SP, Suri A, Mehta VS, Sharma BS. Brainstem gliomas: surgical indications and technical considerations in a series of 58 cases. Br J Neurosurg. 2014 Apr;28(2):220-5. doi: 10.3109/02688697.2013.829562. Epub 2013 Oct 21. PubMed PMID: 24144170.

OBJECTIVES. To analyze the indications of surgical treatment, surgical management strategies and post-surgical outcome in patients with brainstem glioma (BSG).

METHODS. In this retrospective study conducted from 1998 to 2012, 58 patients of surgically treated intrinsic BSG, meeting the inclusion criterion were enrolled. There were 40 males and 18 females, with age range varying from 3 to 55 years. The most common presentation was gait disturbances, either due to cerebellar involvement or motor weakness, followed by motor weakness, ocular involvement and headache. The posteriorly located tumors were operated by midline suboccipital approach (42 patients) and supracerebellar-infratentorial approach (4 patients). Posterolaterally located tumors were operated by retromastoid (10 patients) and all the ventrolateral tumors by subtemporal approach (4 patients). **RESULTS.** Above 90% patients improved in their neurological status, while 5% deteriorated. Pilocytic astrocytoma was the most common histopathology (41.4%), followed by Grade II astrocytoma (34.5%) and Grade III astrocytoma (24.1%). Overall, 19% patients had postoperative complications and three patients (5%) died in the perioperative period. **CONCLUSIONS.** Surgery is advocated for patients with well delineated, posteriorly, posterolaterally and ventrolaterally located tumors having slow progression and relative preservation of motor power. BSG can have excellent surgical results with surgeon's experience and modern surgical facilities.

PMID: 24144170 [PubMed - in process]

148: Sonker A, Dubey A, Singh A, Chaudhary R. A rare case report of chronic variable immunodeficiency divulged by ABO discrepancy. *Transfus Apher Sci.* 2014 Apr;50(2):225-7. doi: 10.1016/j.transci.2013.11.010. Epub 2014 Feb 2. PubMed PMID: 24529743.

ABO discrepancy refers to incongruence between the results of red cell and serum groupings. One such case is described here; the discrepant results of whose routine ABO grouping led to the diagnosis of common variable immunodeficiency. There was no reaction in the reverse grouping of a young patient presenting with recurrent bacterial infections, pointing towards an absence of antibodies in the serum. Diagnosis was made on the basis of markedly decreased serum immunoglobulin levels and by serum protein electrophoresis showing scanty gamma regions.

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PMID: 24529743 [PubMed - in process]

149: Srivastava A, Kataria K, Chella VR. Prevention of gossypiboma. *Indian J Surg.* 2014 Apr;76(2):169. doi: 10.1007/s12262-013-0910-8. Epub 2013 Apr 20. PubMed PMID: 24891790; PubMed Central PMCID: PMC4039676.

PMCID: PMC4039676 [Available on 2015/4/1]

PMID: 24891790 [PubMed]

150: Srivastava P, Gupta R, Varshney M, Sharan P. A rare case of imitation injury. *Indian J Psychol Med.* 2014 Apr;36(2):215-7. doi: 10.4103/0253-7176.131005. PubMed PMID: 24860231; PubMed Central PMCID: PMC4031598.

The impact of media on cognitions and behaviors of adolescents is well-known. High frequency of exposure to media may distort the reality testing among predisposed youth, hence the rise in risk taking behaviors among this population. We present a rare manifestation of risk taking behavior in an adolescent who injected mercury in his body after exposure to a Hollywood film. The results of investigations and possible explanation to understand risk taking behavior in the present case are discussed.

PMCID: PMC4031598

PMID: 24860231 [PubMed]

151: Stevanovic D, Urbán R, Atilola O, Vostanis P, Singh Balhara YP, Avicenna M, Kandemir H, Knez R, Franic T, Petrov P. Does the Strengths and Difficulties Questionnaire - self report yield invariant measurements across different nations? Data from the International Child Mental Health Study Group. *Epidemiol Psychiatr Sci.* 2014 Apr 30:1-12. [Epub ahead of print] PubMed PMID: 24785706.

Aims. This study evaluated the measurement invariance of the strengths and difficulties questionnaire (SDQ) self-report among adolescents from seven different nations. Methods. Data for 2367 adolescents, aged 13-18 years, from India, Indonesia, Nigeria, Serbia, Turkey, Bulgaria and Croatia were available for a series of factor analyses. Results. The five-factor model including original SDQ scales emotional symptoms, conduct problems, hyperactivity-inattention problems, peer problems and prosocial behaviour generated inadequate fit degree in all countries. A bifactor model with three factors (i.e., externalising, internalising and prosocial) and one general problem factor yielded adequate degree of fit in India, Nigeria, Turkey and Croatia. The prosocial behaviour, emotional symptoms and conduct problems factor were found to be common for all nations. However, originally proposed items

loaded saliently on other factors besides the proposed ones or only some of them corresponded to proposed factors in all seven countries. Conclusions. Due to the lack of a common acceptable model across all countries, namely the same numbers of factors (i.e., dimensional invariance), it was not possible to perform the metric and scalar invariance test, what indicates that the SDQ self-report models tested lack appropriate measurement invariance across adolescents from these seven nations and it needs to be revised for cross-country comparisons.

PMID: 24785706 [PubMed - as supplied by publisher]

152: Sullivan R, Badwe RA, Rath GK, Pramesh CS, Shanta V, Digumarti R, D'Cruz A, Sharma SC, Viswanath L, Shet A, Vijayakumar M, Lewison G, Chandy M, Kulkarni P, Bardia MR, Kumar S, Sarin R, Sebastian P, Dhillon PK, Rajaraman P, Trimble EL, Aggarwal A, Vijaykumar DK, Purushotham AD. Cancer research in India: national priorities, global results. *Lancet Oncol*. 2014 May;15(6):e213-22. doi: 10.1016/S1470-2045(14)70109-3. Epub 2014 Apr 11. PubMed PMID: 24731887.

Over the past 20 years, cancer research in India has grown in size and impact. Clinicians, scientists, and government and state policy makers in India have championed cancer research, from studies to achieve low-tech, large-scale health outcomes to some of the most advanced areas of fundamental cancer science. In this paper, we frame public policy discussions about cancer with use of an in-depth analysis of research publications from India. Cancer research in India is a complex environment that needs to balance public policy across many competing agendas. We identify major needs across these environments such as those for increased research capacity and training and protected time for clinical researchers; for more support from states and enhanced collaborative funding programmes from government; for development of national infrastructures across a range of domains (ie, clinical trials, tissue banking, registries, etc); and for a streamlined and rational regulatory environment. We also discuss improvements that should be made to translate research into improvements in cancer outcomes and public health.

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PMID: 24731887 [PubMed - indexed for MEDLINE]

153: Talwar S, Muthukkumaran S, Choudhary SK, Airan B. The expanding indications for the Lecompte maneuver. *World J Pediatr Congenit Heart Surg*. 2014 Apr;5(2):291-6. doi: 10.1177/2150135113508796. PubMed PMID: 24668977.

Since the anterior translocation of the pulmonary arteries in relation to the aorta (Lecompte maneuver) was first described in 1981, its indications have continued to expand. In this review, we discuss the physiological basis and the expanding indications for this maneuver.

PMID: 24668977 [PubMed - in process]

154: Talwar S, Reddy AV, Rajashekar P, Choudhary SK, Airan B. A simple modification to fix the commissural pillar during right ventricular outflow tract reconstruction during the arterial switch operation. *Heart Lung Circ*. 2014 Apr;23(4):383-4. doi: 10.1016/j.hlc.2013.11.004. Epub 2013 Dec 1. PubMed PMID: 24360621.

A simplified technique to fix the commissural pillar of the pulmonary valve at the time of right ventricular outflow tract reconstruction during the arterial switch operation is presented.

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PMID: 24360621 [PubMed - in process]

155: Teckchandani N, Bajpai M. Penile length nomogram for Asian Indian prepubertal boys. *J Pediatr Urol.* 2014 Apr;10(2):352-4. doi: 10.1016/j.jpuro.2013.09.017. Epub 2013 Oct 10. PubMed PMID: 24145175.

BACKGROUND: Penile length-for-age nomograms in prepubertal boys may aid in early recognition of endocrine and genetic disorders associated with abnormal phallic size. There are scarce data on the penile length measurements in children beyond the neonatal period and there is a lack of such a nomogram for Asian Indians.

MATERIALS AND METHODS: Of the boys who were admitted in our ward or seen in the outpatient setting for genitalia-unrelated surgical problems, 20 consecutive boys were included in each of the following ten age slots (total of 200 subjects): 0-1, 1-2, 2-3, 3-4, 4-5, 5-6, 6-7, 7-8, 8-9, and 9-10 years. Their stretched penile length (SPL) measurements were used to establish the normal range (mean \pm 2 SD) of penile length-for-age in prepubertal Indian boys. Mean \pm 2.5 SD was also calculated to define the cut-offs for micropenis and macropenis, respectively, in each age group.

RESULTS: A rapid increase is seen in penile length up to 4 years of age. A much slower increase is implied thereafter.

CONCLUSION: This study provides reference values of penile lengths for Asian Indian boys aged 0-10 years.

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PMID: 24145175 [PubMed - in process]

156: Tewari A, Mahendru V, Sinha A, Bilotta F. Antioxidants: The new frontier for translational research in cerebroprotection. *J Anaesthesiol Clin Pharmacol.* 2014 Apr;30(2):160-71. doi: 10.4103/0970-9185.130001. Review. PubMed PMID: 24803750; PubMed Central PMCID: PMC4009632.

It is important for the anesthesiologist to understand the etiology of free radical damage and how free-radical scavengers attenuate this, so that this knowledge can be applied to diverse neuro-pathological conditions. This review will concentrate on the role of reactive species of oxygen in the pathophysiology of organ dysfunction, specifically sub arachnoid hemorrhage (SAH), traumatic brain injury (TBI) as well as global central nervous system (CNS) hypoxic, ischemic and reperfusion states. We enumerate potential therapeutic modalities that are being currently investigated and of interest for future trials. Antioxidants are perhaps the next frontier of translational research, especially in neuro-anesthesiology.

PMCID: PMC4009632

PMID: 24803750 [PubMed]

157: Thakral P, Singla S, Yadav MP, Vasisht A, Sharma A, Gupta SK, Bal CS; Snehlata, Malhotra A. An approach for conjugation of (177) Lu- DOTA-SCN-Rituximab (BioSim) & its evaluation for radioimmunotherapy of relapsed & refractory B-cell non Hodgkins lymphoma patients. *Indian J Med Res.* 2014 Apr;139(4):544-54. PubMed PMID: 24927340; PubMed Central PMCID: PMC4078492.

BACKGROUND & OBJECTIVES: The prerequisite of radioimmunotherapy is stable binding of a radionuclide to monoclonal antibodies, which are specific to the

tumour-associated antigen. Most B-cell lymphomas express CD20 antigen on the surface of the tumour cells, making it a suitable target for therapeutic radioactive monoclonal antibodies. In the present study, the immunoconjugate of biosimilar Rituximab (Reditux™) and macrocyclic chelator, p-SCN-Bz-DOTA, was prepared and radiolabelled with Lutetium-177 followed by quality control procedures.

METHODS: Rituximab (BioSim) was desalted with sodium bicarbonate (0.1M, pH 9.0) and incubated with DOTA-SCN (1:50). The effectiveness of the conjugation was evaluated by determining the number of chelators per antibody molecule. This conjugate was radiolabelled with Lutetium-177 and purified using PD10 column. The quality control parameters like pH, clarity, radiochemical purity, in vitro stability and sterility were studied. Immunoreactivity of 177 Lu-DOTA-Rituximab (BioSim) was assessed using RAMOS cells. The radioimmunoconjugate (RIC) after stringent quality assurance was injected in three patients and the biodistribution profile was analysed. Results: An average of 4.25 ± 1.04 p-SCN-Bz-DOTA molecules could be randomly conjugated to a single molecule of Rituximab (BioSim). The radiochemical purity of the labelled antibody was > 95 per cent with preserved affinity for CD20 antigen. The final preparation was stable up to about 120 h when tested under different conditions. A favourable biodistribution profile was observed with liver showing the maximum uptake of the RIC.

INTERPRETATION & CONCLUSIONS: A favourable radiochemical purity, stability and biodistribution of the radiolabelled immunoconjugate indicate that clinical trials for evaluation of toxicity and efficacy of 177 Lu-DOTA-antiCD20 antibody-Rituximab (BioSim) in patients of relapsed and refractory non Hodgkin's lymphoma can be considered.

PMCID: PMC4078492

PMID: 24927340 [PubMed - in process]

158: Titiyal JS, Tinwala SI, Shekhar H, Sinha R. Sutureless clear corneal DSAEK with a modified approach for preventing pupillary block and graft dislocation: case series with retrospective comparative analysis. *Int Ophthalmol*. 2014 Apr 12. [Epub ahead of print] PubMed PMID: 24728534.

The purpose of this study was to describe a modified technique of sutureless DSAEK with continuous pressurized internal air tamponade. This was a prospective interventional case series, single-center, institutional study. Twenty-seven patients with corneal decompensation without scarring were included. Aphakic patients and patients with cataractous lens requiring IOL implantation surgery were excluded. Following preparation of the donor tissue, a corneal tunnel was made nasally with two side ports. All incisions were kept long enough to be overlapped by the peripheral part of the donor tissue. Descemet membrane scoring was done using a reverse Sinsky hook, following which it was removed with the same instrument or by forceps. The donor lenticule was then inserted using Busin's glide. Continuous pressurized internal air tamponade was achieved by means of a 30-gauge needle, inserted through the posterior limbus, for 12-14 min. At the end of the surgery, air was partially replaced with BSS, leaving a moderate-sized mobile air bubble in the anterior chamber. At the 6 month's follow-up, CDVA improved from counting fingers at half meter-6/24 preoperatively to 6/9-6/18 postoperatively, and the mean endothelial cell count decreased: to 1,800 from 2,200 cell/mm² preoperatively (18.19 % endothelial cell loss). Donor lenticule thickness as documented on AS-OCT was 70-110 μ on Day 1 and 50-80 μ at 6 months postoperative. None of the cases had flat AC or peripheral anterior synechiae formation. None of the patients required a second intervention. There were no cases of primary graft failure, pupillary block glaucoma or donor lenticule dislocation postoperatively. Our modified technique is simple and effective with reduction in postoperative complications associated with DSAEK,

thereby maximizing anatomic and functional outcomes associated.

PMID: 24728534 [PubMed - as supplied by publisher]

159: Verma A, Panda SS, Bajpai M. Role of endoscopic treatment of vesico-ureteric reflux in downgrading renin angiotensin system activation. *J Pediatr Urol*. 2014 Apr;10(2):386-90. doi: 10.1016/j.jpuro.2013.10.015. Epub 2013 Nov 8. PubMed PMID: 24314818.

OBJECTIVES: The objective of this study was to assess the role of endoscopic treatment of vesico-ureteric reflux (VUR) in downgrading renin angiotensin system (RAS) activation.

METHODS: Of 115 patients diagnosed and treated for VUR, 63 underwent hyaluronic acid/dextranomer (deflux) injection in a total of 99 ureteric moieties. Patients were monitored for urinary tract infection (UTI), glomerular filtration rate (GFR), plasma renin activity (PRA), renal scarring, persistence, or appearance of contra-lateral reflux.

RESULTS: Grade III VUR was most common (38%), and the most common cause of VUR was primary (60%). Analysis of patient characteristics at presentation revealed increased PRA in most cases (68%). Grade I VUR showed the most avid decrease in serum PRA levels after single injection. Serum PRA levels were sustainably low in patients of grade I and II VUR, whereas in patients of grade III values kept rising after reaching nadir. This increase in PRA levels correlated well with persistence of symptoms and reappearance of VUR in some patients.

CONCLUSION: PRA levels can be used as an indicator to initiate treatment of VUR. They can also be used for monitoring the progress of the disease and efficacy of the treatment given.

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PMID: 24314818 [PubMed - in process]

160: Vikram NK, Jialal I. Use of HbA1c in the diagnosis of diabetes and prediabetes: sensitivity versus specificity. *Metab Syndr Relat Disord*. 2014 Jun;12(5):255-7. doi: 10.1089/met.2014.1501. Epub 2014 Apr 9. PubMed PMID: 24716577.

Comment on

Metab Syndr Relat Disord. 2014 Jun;12(5):258-68.

PMID: 24716577 [PubMed - in process]

161: Yang WT, Gounder CR, Akande T, De Neve JW, McIntire KN, Chandrasekhar A, de Lima Pereira A, Gummadi N, Samanta S, Gupta A. Barriers and delays in tuberculosis diagnosis and treatment services: does gender matter? *Tuberc Res Treat*. 2014;2014:461935. doi: 10.1155/2014/461935. Epub 2014 Apr 28. PubMed PMID: 24876956; PubMed Central PMCID: PMC4020203.

Background. Tuberculosis (TB) remains a global public health problem with known gender-related disparities. We reviewed the quantitative evidence for gender-related differences in accessing TB services from symptom onset to treatment initiation. **Methods.** Following a systematic review process, we: searched 12 electronic databases; included quantitative studies assessing gender differences in accessing TB diagnostic and treatment services; abstracted data; and assessed study validity. We defined barriers and delays at the individual and provider/system levels using a conceptual framework of the TB care continuum and

examined gender-related differences. Results. Among 13,448 articles, 137 were included: many assessed individual-level barriers (52%) and delays (42%), 76% surveyed persons presenting for care with diagnosed or suspected TB, 24% surveyed community members, and two-thirds were from African and Asian regions. Many studies reported no gender differences. Among studies reporting disparities, women faced greater barriers (financial: 64% versus 36%; physical: 100% versus 0%; stigma: 85% versus 15%; health literacy: 67% versus 33%; and provider-/system-level: 100% versus 0%) and longer delays (presentation to diagnosis: 45% versus 0%) than men. Conclusions. Many studies found no quantitative gender-related differences in barriers and delays limiting access to TB services. When differences were identified, women experienced greater barriers and longer delays than men.

PMCID: PMC4020203

PMID: 24876956 [PubMed]