

Christian Medical College VELLORE



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Research Digest

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Nihal Thomas MBBS MD MNAMS DNB(Endo)FRACP(Endo) FRCP(Edin)
Vice Principal (Research)

Abraham, P. and Isaac, B.**The effects of oral glutamine on cyclophosphamide-induced nephrotoxicity in rats****Hum Exp Toxicol; 2011, 30 (7): 616-23**

Nephrotoxicity is one of the adverse side effects of cyclophosphamide (CP) chemotherapy. In a recent study, we have demonstrated that oxidative stress and glutathione depletion play important roles in CP-induced renal damage. The aim of the study was to verify whether glutamine, the precursor for glutathione synthesis, prevents CP-induced oxidative stress and renal damage using a rat model. Adult male rats were administered a single dose of 150 mg/kg body weight of CP intraperitoneally. The glutamine-pretreated rats were administered 1 gm/kg body weight of glutamine orally 2 h before the administration of CP. Vehicle/glutamine-treated rats served as Controls. All the rats were killed 16 h after the dose of CP/vehicle. The kidneys were removed and used for light microscopic and biochemical studies. The markers of oxidative stress including malondialdehyde Content, protein carbonyl Content, protein thiol, reduced glutathione and myeloperoxidase activity, a marker of neutrophil infiltration, were measured in kidney homogenates. CP treatment-induced damage to kidney involved the glomeruli and the tubules. Pretreatment with glutamine reduced CP-induced glutathione depletion and increased myeloperoxidase activity. However, it did not prevent CP-induced lipid peroxidation, protein carbonylation and renal damage. The results of the present study suggest that glutamine pretreatment does not prevent CP-induced lipid peroxidation and renal damage, although it prevents CP-induced glutathione depletion and neutrophil infiltration significantly. It is suggested that mechanisms other than oxidative stress may also be involved and/or oxidative stress may be consequence and not the cause of CP induced renal damage.

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PMID: 20621952 **BS**

Abraham, P. and Isaac, B.**Ultrastructural changes in the rat kidney after single dose of cyclophosphamide—Possible roles for peroxisome****proliferation and lysosomal dysfunction in cyclophosphamide-induced renal damage**
Hum Exp Toxicol; 2011, 30 (12): 1924-30

Electron microscopy was used to examine changes in the subcellular organelles of the rat kidney at different time intervals after a single exposure to cyclophosphamide (CP). The morphological changes were studied at different time points (6 hrs, 16 hrs and 24 hrs) after a single-dose administration of CP. Six rats were killed at each time intervals after the administration of CP. Saline-treated rats served as Controls. CP administration resulted in alterations in various subcellular organelles including peroxisomes, lysosomes, mitochondria, and the endoplasmic reticulum (ER) of the renal tubular epithelium as well as damage to the glomerulus. The basement membrane of the glomerulus was thickened. Many podocytes were destroyed. The nucleoplasm of the endothelial cell showed fewer granularities. The tubules were distorted and the brush border was destroyed. Two striking features in the renal tubular cells are increase in number and size of the peroxisomes (peroxisome proliferation) and decrease in the number of lysosomes. The mitochondria were elongated and the number was increased in the tubules of CP-treated rats. The ER was dilated. Cell necrosis was also seen. This study is an evidence of changes in morphology of rat kidney after induction of renal damage by a single dose of CP. Since transmission electron microscopy is the highest magnification tool at present, it can be useful in estimating the degree of injury and outcome of alternative treatment strategies in the management of CP-induced renal damage after establishing a scoring system.

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PMID: 21421693 **BS**

Abraham, P. and Rabi, S.**Aminoguanidine, a Selective Nitric Oxide Synthase Inhibitor, Attenuates Cyclophosphamide-Induced Renal Damage by Inhibiting Protein Nitration and Poly(ADP-Ribose) Polymerase Activation****Chemotherapy; 2011, 57 (4): 327-334**

Background: Cyclophosphamide (CP) is an antineoplastic agent that is used for the treatment of

many neoplastic diseases. Renal damage is one of the dose-limiting side effects of CP. Recent studies show that nitrosative stress plays an important role in CP-induced renal damage. Aim: The purpose of our study was to investigate whether aminoguanidine (AG), a selective inducible nitric oxide synthase inhibitor, protects against CP-induced nitrosative stress and renal damage. Method: Renal damage was induced in rats by administration of a single injection of CP at a dose of 150 mg/kg body weight intraperitoneally. For the AG pretreatment studies, the rats were injected intraperitoneally with AG at a dose of 200 mg/kg body weight 1 h before administration of CP. The Control rats received AG or saline alone. All the rats were killed 16 h after the administration of CP or saline. Pretreatment with AG prevented CP-induced nitration of protein tyrosine and poly(ADP-ribose) polymerase (PARP) activation. Result: Pretreatment with AG attenuated CP-induced renal damage. The present study demonstrates that AG is effective in preventing CP-induced renal damage and also that the protective effect is from its ability to inhibit nitric oxide-induced protein nitration and PARP activation. Conclusion: The present study shows that AG can prevent CP-induced renal damage by inhibiting protein tyrosine nitration and PARP activation. Thus, a more efficient and comfortable therapy can be achieved for patients in need of CP treatment. AG appears to be a promising drug for the prevention of nephrotoxicity of CP.

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PMID: 21893984 **BS**

Jared, S. R. and Rao, J. P.

Requirement of Potassium for the Action of Anti-Diuretic Hormone (ADH) on Frog Skin
Zoolog Sci; 2011, 28 (12): 916-21

The aim of the present study is to study whether the presence of K(+) in bathing media is required for the action of ADH to the ionic transport across the skin in the frog species *Rana hexadactyla*. Ionic transport was measured as transepithelial potential difference (TEPD) and short circuit current (SCC) by using an indigenously developed Computer based voltage-clamp technique. Addition of ADH (40 nM) on the

serosal side significantly increased the TEPD and SCC with Normal Ringer (NR) on both sides. ADH had no effect subsequent to amiloride (100 microM) pre-treatment, which confirmed the ADH-induced Na(+) transport. Chloride also has a significant role in the development of TEPD. To determine the role of K(+), Potassium-free Ringer (KFR) was placed on both sides; addition of ADH had no effect. Consequently, further experiments were carried out to find out which side of K(+) was required for the action of ADH. There was a lack of ADH effect with apical NR and serosal KFR, demonstrating that serosal K(+) is essential to activate Na(+), K(+)-ATPase. Similarly, the ADH effect was lacking with apical KFR and serosal NR that was the novel finding of this study. Due to the concentration gradient, the K(+) was secreted from serosal side to apical side through barium (1 mM) blockable K(+) channel. This study provides evidence that serosal as well as apical K(+) are necessary for the action of ADH.

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PMID: 22132789 **BS**

Kettimuthu, K. P., Lourthuraj, A. A., Manickam, A. S., Subramani, S. and Ramachandran, A.

Mechanisms of toxicity of *Cleistanthus collinus*: vacuolar ATPases are a putative target
Clin Toxicol (Phila); 2011, 49 (6): 457-63

Ingestion of *Cleistanthus collinus*, a shrub native to South India, either intentionally or accidentally, is a common cause of death in the area. Consumption of a boiled decoction of leaves is highly toxic, but medical management of patients is mainly supportive because the molecular mechanisms of toxin action are unknown. Distal renal tubular acidosis is one of the symptoms of poisoning in patients and adenosine triphosphate (ATP) requiring proton pumps is important for acid secretion in the kidney. Hence, we hypothesized that these may be putative targets for *C. collinus* action and we tested this by exposing rat renal brush border membrane (BBM) as well as cultured kidney cells to a boiled decoction of *C. collinus*. Exposure to the *C. collinus* decoction resulted in significant inhibition of vacuolar type H(+)-ATPase (V-ATPase) activity in renal BBM as well as blocking of the proton

pump in renal BBM vesicles. C. COLLINUS deCOction was also found to inhibit acidification of intracellular organelles in cells in culture, similar to the effect seen with either bafilomycin or CONcanamycin - specific inhibitors of the V-ATPase. This was acCOMpanied by a decrease in V-ATPase activity, but an increase in protein levels. These results demonstrate that the V-ATPase in renal cells is a putative target for the toxins in C. COLLINUS and the inhibition of this important proton pump probably plays a role in the development of distal renal tubular acidosis and subsequent renal failure seen in poisoned patients.

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PMID: **21824057** BS

Moorthy, R. K., Sam, G. A., Kumar, S. V., Chacko, G., Mathews, V., Chacko, A. G., Srivastava, A. and Rajshekhar, V.

Intralesional mesenchymal stromal cell transplant in a rodent model of cortical cryoinjury
Neurol India; 2011, 59 (4): 573-8

Background: The effect of intralesional mesenchymal stromal cell (MSC) transplant in the subacute phase of brain injury has not been studied. **Aim:** To evaluate the role of intralesional transplant of mouse MSC following coldinduced cerebral cortical injury in mouse in improving neurological function. **Material and Methods:** Twelve mice (Swiss albino strain) received an intralesional injection of 2×10^6 mouse MSCs labelled with Bromodeoxyuridine (BrdU) and suspended in phosphate-buffered saline (PBS), 72 h after cerebral cryoinjury. Six mice received intralesional injection of PBS and served as controls. Neurological severity score (NSS) and rotarod treadmill test were used to perform serial assessments. **Results:** The mean NSS in the control group (n=5) on the first posttrauma day was 9.3 ± 1.2 and it improved to 14.2 ± 1.3 on day 28. The mean NSS in the MSC group (n=11) was 10.7 ± 1.8 on the first posttrauma day and it improved to 16 ± 1.1 on day 28 posttransplant. This difference was not found to be statistically significant when subgroup analysis of animals, where the assessments were blinded, was performed. There was no significant difference in the rotarod treadmill scores between the control and the

MSC group at any time point. Few BrdU-positive cells could be identified in the periphery of the contusion up to day 10 posttransplant. **Conclusions:** Transplanted MSCs were shown to survive for at least 10 days after intralesional transplant in the cryoinjury model of the mouse cerebral cortex but the functional recovery observed in the experimental group was not statistically different from the controls.

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PMID: **21891936** BS

Selvan, B., Ramachandran, A., Korula, A., Amirtharaj, G. J., Kettimuthu, K., Nair, S., Nair, A., Samuel, P. and Mathew, G.

Low dose aspirin prevents duodeno-esophageal reflux induced muCOsal changes in wistar rat esophagus by MAP kinase mediated pathways

Int J Surg; 2011, BACKGROUND: Investigations of molecular mechanisms behind the progression of neoplastic changes in the esophagus have unCOVERed the role of the COX & 5-Lox pathways. Human squamous esophageal muCOsa produces relatively large amounts of eiCOsanoids in the presence of inflammation 6, 7. Laboratory and epidemiological data suggest that aspirin and non-steroidal anti-inflammatory drugs may be chemo preventive through their inhibitory effect on COX25, 10. Cell culture studies have shown that the members of the mitogen activated protein (MAP) kinase family plays an important role in the development of bile acid-induced carcinogenesis. Differences in MAPK pathways activated by bile exposure were also noted in esophageal squamous cell lines and biopsies from patients with GERD12. The protective role of aspirin and its molecular mechanism is not well understood. **AIMS: METHODS:** Total of 56 rats was included. 3 were "Nadve CONTROL" animals which did not undergo the surgical procedure. The remaining animals were divided into two groups: Surgery alone (experimental) and Surgery + aspirin (therapy group). [esophagoduodenostomy]. At 40 weeks, the rats were euthanized and appropriate esophageal samples were analysed for histopathology and p38 & ERK MAP kinases, VEGF, protease activity and caspase 3 activities. **RESULTS:** The presence of gross muCOsal nodularity was seen in 21 and 10 rats

of the experimental and therapy group respectively ($p = 0.03$; Table 1). Reflux-associated changes such as basal cell hyperplasia were more common in the experimental group, however this association did not reach statistical significance ($p = 0.15$; Table 1). Epithelial hyperplasia was seen more in the experimental group, which was prevented by aspirin [$p < 0.01$]. Papillomatosis, as shown in Fig. 4 was more common in the experimental group ($p = 0.02$). Activation of p38 & ERK MAP kinases was prevented in aspirin group ($p < 0.05$, CI -1.796—0.014). Examination of protease activity by zymographic analysis of the esophageal samples revealed a number of gelatinolytic bands in 50% rats of the experimental group, not observed in the therapy group. No significant changes were seen in Caspase 3 [Normal areas -99.74 & nodular areas - 100.34 percent of Controls] or VEGF [mean 0.64, sd \pm 0.76 Vs 0.69 \pm -0.96] activity. CONCLUSIONS: Our data demonstrated that low dose aspirin reduced the incidence of duodeno-esophageal reflux induced histological changes in the esophagus by preventing activation of proliferative & anti-apoptotic MAP kinases such as p38 & ER as well as protease activity. Though Barretts' changes and adenocarcinoma have not developed, it could explain the role of duodeno-esophageal reflux in the development of different histological but potential premalignant lesions and molecular level changes which are prevented by low dose aspirin.

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PMID: 22197650 BS

Sengupta, A. and Cancelas, J. A.

A Conundrum in mammalian hematopoietic stem cell polarity

Cell Cycle; 2011, 10 (24): Comment on: Sengupta A, et al. Proc Natl Acad Sci USA 2011; 108:9957-62.

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PMID: 22157228 BS

Subramani, S., Kanthakumar, P., Maneksh, D., Sidharthan, A., Rao, S. V., Parasuraman, V. and Tharion, E.

O2-CO2 diagram as a tool for Comprehension of blood gas abnormalities

Adv Physiol Educ; 2011, 35 (3): 314-20

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PMID: 21908843 BS

Sumitha, E., Jayandharan, G. R., David, S., JaCOB, R. R., Sankari Devi, G., Bargavi, B., Shenbagapriya, S., Nair, S. C., Abraham, A., George, B., Viswabandya, A., Mathews, V., Chandy, M. and Srivastava, A.

Molecular basis of Bernard-Soulier syndrome in 27 patients from India

J Thromb Haemost; 2011, 9 (8): 1590-8

To cite this article: Sumitha E, Jayandharan GR, David S, JaCOB RR, Sankari Devi G, Bargavi B, Shenbagapriya S, Nair SC, Abraham A, George B, Viswabandya A, Mathews V, Chandy M, Srivastava A. Molecular basis of Bernard-Soulier syndrome in 27 patients from India. J Thromb Haemost 2011; 9: 1590-8. Summary. Background: Bernard-Soulier syndrome (BSS) is an extremely rare (1:1 million) bleeding disorder of platelet adhesion, caused by defects in the glycoprotein (GP)Ib/IX/V complex. Patients and methods: The diagnosis in 27 patients was based on low platelet count, presence of giant platelets and aggregometry studies. Flow cytometry to assess the surface GPIb/IX/V complex showed reduced (7.7-57%) expression. gDNA was screened for mutations in the GPIBA, GPIBB, GP9 genes using PCR-conformation sensitive gel electrophoresis (CSGE). Results: Thirteen different disease-causing mutations, including missense (54%), frameshifts (38%) and nonsense (8%) mutations, were identified in 27 patients. Eleven of them were novel including five novel frameshifts (GPIb α : p.Gln97_98fsX113, p.Pro402_403fsX52; GPIb β : p.Arg17fsX14; GPIX: p.Gly24fsX43, p.Pro130fs, a nonsense mutation (GPIX, p.94, Gln>X) and five novel missense mutations (GPIb α : p.492, Tyr>His; GPIb β : p.65, Pro>Arg,

p.129, Gln>His, p.132, Leu>Pro; GPIX: p.55, Phe>Cys). Interestingly, four COMmon mutations, Cys8Arg (n = 6) and Phe55Ser (n = 2), Phe55Cys (n = 2) in GPIX and a novel 22-bp deletion in the GPIBB gene predicting p.Arg17fsX 14 (n = 10) were seen in 20 patients. CONclusion: The molecular data presented here is the largest series of BSS patients to be reported so far, adding significantly to the mutation database of this CONdition and also useful for its genetic diagnosis in India.

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PMID: 21699652 BS

Tharion, G., Indirani, K., Durai, M., Meenakshi, M., Devasahayam, S. R., Prabhav, N. R., Solomons, C. and Bhattacharji, S.

Motor reCOvery following olfactory ensheathing cell transplantation in rats with spinal COrd injury
Neurol India; 2011, 59 (4): 566-72

Background: Olfactory ensheathing cells (OEC) are Considered to be the most suitable cells for transplantation therapy in the central nervous system (CNS) because of their unique ability to help axonal regrowth and remyelination in the CNS. However, there are CONflicting reports about the success rates with OEC. Aim: This study was undertaken to evaluate the therapeutic effect of OEC in rat models using different cell dosages. Material and Methods: OECs harvested from the olfactory muCOsa of adult white Albino rats were cultured. Spinal COrd injury (SCI) was inflicted at the lower thoracic segment in a COntrol and test group of rats. Two weeks later, OECs were delivered in and around the injured spinal COrd segment of the test group of the rats. The outCOME in terms of loCOMotor reCOvery of limb muscles was assessed on a standard rating scale and by reCOding the motor-evoked potentials from the muscles during transcranial electrical stimulation. Finally, the animals were sacrificed to assess the structural repair by light microsCOpy. Statistical Analysis: WilCOxon signed rank test and Mann-Whitney U-test were used to COmpare the data in the COntrol and the test group of animals. A P value of <0.05 was CONsidered significant. Results:

The study showed a moderate but significant reCOvery of the injured rats after OEC transplantation (P=0.005). CONclusion: Transplantation of OECs along with olfactory nerve fibroblasts improved the motor reCOvery in rat models with SCI.

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PMID: 21891935 BS

Adams, J. S., Raju, R., Solomon, V., Samuel, P., Dutta, A. K., Rose, J. S. and Tharyan, P.

Increasing COmpliance with protective eyewear to reduce ocular injuries in stone-quarry workers in Tamil Nadu, India: A pragmatic, cluster randomised trial of a single education session versus an enhanced education package delivered over six months

Injury; 2011, OBJECTIVE: To evaluate the efficacy of standard education versus enhanced education in increasing COmpliance with protective eyewear to prevent ocular injuries in stone-quarry workers. DESIGN: Pragmatic, allocation CONcealed, participant and outCOME assessor blinded, cluster randomised trial. SETTING: Six stone-quarries around Vellore, Tamil Nadu, South India. PARTICIPANTS: 204 COnsenting adult stone quarry workers. INTERVENTIONS: Protective eyewear plus enhanced education (one education session, plus 11 sessions of group education, individual discussions, and educational plays over six months) versus protective eyewear plus standard education (one education session and 5 follow up visits). OUTCOMES: The primary outCOMes were observer-rated COmpliance with protective eyewear and reduction in incidence of ocular injuries (slit-lamp examination by an observer blinded to allocation status) at three and six months. Analysis was by intention to treat. RESULTS: Quarries and participants were similar at enrolment. All quarries; 92/103 (90%) of workers in three quarries given enhanced intervention, and 91/101 workers (89%) in three quarries given standard education, COmpleted six months follow up. COmpared to standard education, enhanced education significantly increased COmpliance with protective eyewear by 16% (95% CI 3-28%) at three months (OR 2.1; 95% CI 1.2-3.8); and by 25% (95% CI 11-35%) at six months (OR 2.7; 95% CI 1.5-4.8). Protective eyewear and enhanced education reduced the incidence of eye injuries at three months

by 16% (95% CI 7-24%); and standard education by 13% (95% CI 4-22%), Compared to the three months before interventions. The cumulative reduction over baseline in eye injuries at the six months was greater with enhanced education (12% decrease; 95% CI 3-21%) than with standard education (7% decrease; 95% CI 17% decrease to 3% increase). However, this incidence did not differ significantly between intervention arms at three months (OR 0.7% 95% CI 0.3-2.1); and at six months (OR 0.8; 95% CI 0.4-1.5). **CONCLUSION:** Provision of appropriate protective eyewear reduces the incidence of eye injuries in stone-quarry workers. Periodic educational and motivational sessions with individuals and groups facilitates sustained use of protective eyewear.

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PMID: **22075447** CI

Ankichetty, S. P., Ponniah, M., Cherian, V., Thomas, S., Kumar, K., Jeslin, L., Jeyasheela, K. and Malhotra, N.

Comparison of total intravenous anesthesia using propofol and inhalational anesthesia using isoflurane for Controlled hypotension in functional endoscopic sinus surgery

Journal of anaesthesiology, clinical pharmacology; 2011, 27 (3): 328-32

BACKGROUND: An important requirement during functional endoscopic sinus surgery is to maintain a clear operative field to improve visualization during surgery and to minimize complications. **MATERIALS AND METHODS:** We compared total intravenous anesthesia using propofol with inhalational anesthesia using isoflurane for controlled hypotension in functional endoscopic sinus surgery. It was a prospective study in a tertiary hospital in India. Forty ASA physical status I and II adult patients (16-60 years) were randomly allocated to one of two parallel groups (isoflurane group, n = 20; propofol group, n = 20). The primary outcome was to know whether total intravenous anesthesia using propofol was superior to inhalational anesthesia using isoflurane for controlled hypotension. The secondary outcomes measured were intraoperative blood loss, duration of surgery, surgeon's opinion regarding the surgical field and the incidence of complications. **RESULTS:** The

mean (+/-SD) time to achieve the target mean blood pressure was 18 (+/-8) minutes in the isoflurane group and 16 (+/-7) minutes in the propofol group (P = 0.66). There was no statistically significant difference (P = 0.402) between these two groups in terms of intraoperative blood loss and operative field conditions (P = 0.34). **CONCLUSIONS:** Controlled hypotension can be achieved equally and effectively with both propofol and isoflurane. Total intravenous anesthesia using propofol offers no significant advantage over isoflurane-based anesthetic technique in terms of operative conditions and blood loss.

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PMID: **21897501** CI

Basu, G., Mohapatra, A., Manipadam, M. T., Mani, S. E. and John, G. T.

Leflunomide with low-dose everolimus for treatment of Kaposi's sarcoma in a renal allograft recipient

Nephrol Dial Transplant; 2011, Current treatment of Kaposi's sarcoma is reduction of immunosuppression with or without addition of mammalian target of rapamycin inhibitors (mTORi). Akt signalling plays a central role in oncogenesis of Kaposi's sarcoma. We describe a case of multifocal Kaposi's sarcoma in a renal allograft recipient, which showed unsatisfactory early response to immunosuppression reduction along with everolimus therapy but completely resolved after adding leflunomide. mTORi impair Kaposi's sarcoma oncogenesis by inhibiting mTOR downstream from the Akt signalling. Leflunomide inhibits Akt phosphorylation. This synergistic effect may be beneficial in treatment of Kaposi sarcoma and needs to be explored in trials.

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PMID: **21775763** CI

Boopalan, P. R., Nithyananth, M., Titus, V. T., Cherian, V. M. and Jepegnanam, T. S.

Experience of using local flaps to cover open lower limb injuries at an Indian trauma center

J Emerg Trauma Shock; 2011, 4 (3): 325-9

BACKGROUND: Optimal care of open, high-velocity, lower limb injury requires surgical skills in debridement, skeletal stabilization, and in providing appropriate soft tissue COVer. Timely COOrdination between orthopedic and plastic surgeons, though ideal, is often difficult. In our center, orthopedic surgeons undertake COMprehensive treatment of open fractures including soft tissue COVer. We reviewed the results of the local flaps of lower limb, done by orthopedic surgeons.

MATERIALS AND METHODS: We retrospectively reviewed the results of the lower limb flaps done between January 2005 and December 2006. All flaps done at and below the level of knee were included.

RESULTS: There were 105 patients with 120 flaps during this period. Two patients with two flaps were lost to follow-up. The average age was 32 years. Sixty-four patients had Type IIIB Gustilo and Anderson injuries. Thirty-nine patients had isolated soft tissue injuries. The indications for flaps were exposed bone, tendon, and joint in 45, 11, and 12, respectively, or a COMbination in 35 patients. The flaps done were 51 reverse sural artery, 35 gastrocnemius, 25 local fasciocutaneous, and seven foot flaps. The flap dimensions ranged from 2 x 2 to 30 x 15 cm. Ninety-three flaps (79%) healed primarily. Among 25 flaps (21%) with necrosis, 14 flaps required seCONdary split skin graft for healing, while the other nine flaps healed without further surgery.

CONCLUSION: Appropriate soft tissue COVer provided by orthopedic surgeons can help in providing independent, COMposite care of lower limb injuries.

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PMID: **21887018** CI

David, D., Samuel, P., David, T., Keshava, S. N., Irodi, A. and Peter, J. V.

An open-labelled randomized CONtrolled trial COMparing COsts and clinical outCOMes of open endotracheal suctioning with closed endotracheal suctioning in mechanically ventilated medical intensive care patients
J Crit Care; 2011, 26 (5): 482-8

PURPOSE: Closed endotracheal suctioning (CES) may impact ventilator-associated pneumonia (VAP) risk by reducing environmental CONtamination. In developing COUNtries where resource limitations CONstrain the provision of optimal bed space for critically ill patients,

CES assumes greater importance.

MATERIALS AND METHODS: In this prospective, open-labeled, randomized CONtrolled trial spanning 10 months, we COMpared CES with open endotracheal suctioning (OES) in mechanically ventilated patients admitted to the medical intensive care unit (ICU) of a university-affiliated teaching hospital. Patients were followed up from ICU admission to death or discharge from hospital. Primary outCOME was incidence of VAP. SeCONdary outCOMes included mortality, COst, and length of stay.

RESULTS: Two hundred patients were recruited, 100 in each arm. The incidence of VAP was 23.5%. Closed endotracheal suctioning was associated with a trend to a reduced incidence of VAP (odds ratio, 1.86; 95% CONfidence interval, 0.91-3.83; P = .067). A significant benefit was, however, observed with CES for late-onset VAP (P = .03). Mortality and duration of ICU and hospital stay were similar in the 2 groups. The COst of suction catheters and gloves was significantly higher with CES (Rs 272 [US \$5.81] vs Rs 138 [US \$2.94], P < .0001). Nine patients need to be treated with CES to prevent 1 VAP (95% CONfidence interval, -0.7 to 22).

CONCLUSIONS: In the ICU setting in a developing COUNtry, CES may be advantageous in reducing the incidence of VAP, particularly late-onset VAP. These results mandate further studies in this setting before specific guidelines regarding the routine use of CES are proposed.

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PMID: **21106340** CI

Gopinath, K. and Danda, D.

Supplementation of 1,25 dihydroxy vitamin D3 in patients with treatment naive early rheumatoid arthritis: a randomised CONtrolled trial
Int J Rheum Dis; 2011, 14 (4): 332-9

AIM: 1,25 dihydroxy vitamin D3 has immunomodulatory functions in rheumatoid arthritis (RA) and is an anti-osteoporotic agent. No studies exist to assess its pain-relieving action in RA.

METHODS: An open-labeled randomized trial COMparing triple disease-modifying anti-rheumatic drug (DMARD) therapy and 500 IU 1,25 dihydroxy vitamin D3 + calcium COMbination versus triple DMARD and calcium alone was CONducted. The primary outCOME was the time to pain relief by patients' visual analogue scale (VAS). Changes in VAS after first

achievement of pain relief and after 3 months were noted. 25 hydroxy-vitamin D levels were CORrelated with disease activity sCOR (DAS-28), adjusting for sun exposure. COMparisons between the groups were done by Mann-Whitney test and independent samples test. RESULTS: Patients on the vitamin D group (n = 59) had higher pain relief than the CONTROL group (n = 62) (50%vs. 30%, P = 0.006). There was no significant difference in the time taken for initial pain relief between the two groups. Occurrence of hypovitaminosis D in RA patients (68.1%) is COMparable to published normal Indian prevalence. There was no CORrelation between 25 hydroxy vitamin D levels and disease activity. CONCLUSIONS: Supplementation of 500 IU of 1,25 dihydroxy vitamin D3 daily to previously DMARD-naïve patients with early RA along with triple DMARD therapy results in a significantly higher pain relief at the end of 3 months. The number needed to treat for this additional pain relief was 5. The prevalence of vitamin D deficiency in the study population was 68.1%.

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PMID: **22004229** CI

Gopisankar, G., Justin, A. S., Nithyananth, M., Cherian, V. M. and Lee, V. N.

Non-vascularised fibular graft as an intramedullary strut for infected non-union of the humerus
J Orthop Surg (Hong Kong); 2011, 19 (3): 341-5

PURPOSE. To review outCOMes of 7 patients who underwent revision surgery for infected non-union of the humerus using a fibular graft as an intramedullary strut. **METHODS.** ReCORDs of 7 men aged 29 to 59 (mean, 40) years with humeral diaphyseal infected non-union who underwent fixation using a COMpression plate and a non-vascularised fibular graft as an intramedullary strut were reviewed. The mean number of previous surgeries was 2.7 (range, 2-4). Three of the patients had active draining sinuses previously. Their C-reactive protein levels were normal and tissue cultures negative. The remaining 4 patients had active draining sinuses. They first underwent implant removal and debridement. Tissue cultures CONFirmed infection in 3 of them. The mean duration between debridement and the index surgery was 5

(range, 3-10) months. **RESULTS.** The mean length of the fibulae harvested was 13 (range, 12-15) cm. All 7 non-unions healed. The mean time to healing was 5.4 (range, 4-8) months. The mean follow-up period was 15 (range, 13-24) months. All patients had weakness of the extensor hallucis longus, which improved to near normal at month 3. There was no donor-site morbidity. Three patients with active infection at presentation underwent repeat surgery. Two of them had wound washouts, and their non-unions went on to heal successfully; one underwent implant removal after union due to an active sinus. Six of the patients returned to their pre-injury activity level, and one endured a brachial plexus injury. **CONCLUSION.** Fixation using a COMpression plate and a non-vascularised fibular graft as an intramedullary strut achieved good outCOME for infected non-union of the humerus despite prior multiple failed surgeries.

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PMID: **22184167** CI

Kavitha, A., Chacko, K. P., Thomas, E., Rathore, S., Christopher, S., Biswas, B. and Mathews, J. E.

A randomized CONTROLled trial to study the effect of IV hydration on the duration of labor in nulliparous women

Arch GyneCOL Obstet; 2011, **PURPOSE:** To COMPare the effects of two different regimens of intravenous hydration and oral hydration on the duration of active labor. **METHODS:** Two hundred and ninety-three low risk term primigravida in active labor were randomized into three groups. The first group had 99 patients who received oral fluids only, the seCOND group of 98 patients received intravenous Ringer lactate at the rate of 125 ml/h (IV 125 ml) and the third group had 96 patients who received intravenous Ringer lactate at a rate of 250 ml/h (IV 250 ml). Amniotomy and oxytocin administration were allowed acCORDing to the physician's discretion. **RESULTS:** The mean duration of labor in the oral fluid group was 391, 363 min in the 125 ml/h group and 343 min in the 250 ml/h group, P = 0.203. The incidence of prolonged labor more than 12 h in the oral fluid group was 7.1% in the oral fluid group, 4.1% in the 125 ml/h group and 3.1% in the 250 ml/h group, P = 0.402. The oxytocin requirement

was 37% in the oral group, 32% in the 125 ml/h group and 33% in the 250 ml/h group, $P = 0.68$. There was a statistically significant reduction in the incidence of vomiting in patients receiving intravenous hydration, i.e. 24.2% in the oral group, 11.2% in the 125 ml/h group and 6.3% in the 250 ml/h group, $P = 0.001$. There was no difference in the mode of delivery, maternal or neonatal Complications between the three groups. **CONCLUSION:** This study establishes a trend towards decreased incidence of prolonged labor and less vomiting in patients receiving intravenous hydration.

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PMID: 21748313 CI

Keshava, S. N. and Mammen, S.

Percutaneous placement of a biliary plastic stent
Indian J Radiol Imaging; 2011, 21 (3): 231-3

Endoscopic biliary plastic stent placement is a well-established technique for unresectable and recurrent biliary obstructive disease and provides significant improvement in the quality of life. We describe a new technique of percutaneous placement of biliary plastic stent that has not been previously mentioned in the literature.

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PMID: 22013302 CI

Mathews, V., Chendamarai, E., George, B., Viswabandya, A. and Srivastava, A.

Treatment of acute promyelocytic leukemia with single-agent arsenic trioxide

Mediterr J Hematol Infect Dis; 2011, 3 (1): e2011056

It is well recognized that arsenic trioxide (ATO) is an efficacious agent for the treatment of acute promyelocytic leukemia (APL). Use of single agent ATO in the treatment of APL leads to remissions which are durable in the majority. ATO is probably the most effective single agent in the treatment of APL and there have been very few reports of primary resistance. It has been used both as a single agent and in Combination with other Conventional drugs to treat APL. Use of ATO is the accepted standard of care in

the management of relapsed APL, where it is often used effectively as a bridge to a stem cell transplant. However, its role in newly diagnosed APL remains Controversial. ATO probably has multiple mechanisms of action. Better understanding of its mechanisms of action/s is likely to lead to more rationale use of this agent or its derivatives either alone or in Combination with other drugs. There is limited data on the kinetics of leukemia clearance and normal haematopoietic reCOvery after the administration of single agent ATO for the treatment of APL, preliminary data suggests that it is likely to be different from Conventional therapy. There have been a number of Concerns of the potential short and long term toxicity of this agent. Most such CONCerns arise from the toxicity profile noted in people exposed to long term arsenic exposure in the environment. With the therapeutic doses and schedules of administration of ATO in the treatment of malignancies the overall toxicity profile has been favorable. In a resource CONstrained environments the use of a single agent ATO based regimen is a realistic and acceptable option to treat almost all patients. In the developed world it has the potential in Combination with other agents to improve the clinical outCOME with reduction of dose intensity of chemotherapy and remains an option for patients who would not tolerate Conventional therapy. In this review we focus on the use of single agent ATO for the treatment of APL and summarize our experience and review the literature.

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PMID: 22220253 CI

Petkar, K. S., Dhanraj, P., Kingsly, P. M., Sreekar, H., Lakshmanarao, A., Lamba, S., Shetty, R. and Zachariah, J. R.

A prospective randomized Controlled trial COmparing negative pressure dressing and CONventional dressing methods on split-thickness skin grafts in burned patients
Burns : journal of the International Society for Burn Injuries; 2011, 37 (6): 925-9

INTRODUCTION: Split-thickness skin grafting (SSG) is a technique used extensively in the care of burn patients and is fraught with suboptimal graft take when there is a less-than-ideal graft bed and/or grafting CONditions. The technique of Negative Pressure Dressing (NPD), initially used for better wound healing has been tried

on skin-grafts and has shown to increase the graft take rates. However, COmparative studies between the COntventional dressing and vacuum assisted closure on skin grafts in burn patients are unavailable. The present study was undertaken to find out if NPD improves graft take as COmpared to COntventional dressing in burns patients. MATERIALS AND METHODS: COntsecutive burn patients undergoing split-skin grafting were randomized to receive either a COntventional dressing COnsisting of Vaseline gauze and COtton pads or to have a NPD of 80mm Hg for four days over the freshly laid SSG. The results in terms of amount of graft take, duration of dressings for the grafted area and the COst of treatment of wound were COmpared between the two groups. RESULTS: A total of 40 split-skin grafts were put on 30 patients. The grafted wounds included acute and chronic burns wounds and surgically created raw areas during burn reCOstruction. Twenty-one of them received NPD and 19 served as COntrols. Patient profiles and average size of the grafts were COmparable between the two groups. The vacuum closure assembly was well tolerated by all patients. Final graft take at nine days in the study group ranged from 90 to 100 per cent with an average of 96.7 per cent (SD: 3.55). The COntrol group showed a graft take ranging between 70 and 100 percent with an average graft take of 87.5 percent (SD: 8.73). Mean duration of COntinued dressings on the grafted area was 8 days in cases (SD: 1.48) and 11 days in COntrols (SD: 2.2) after surgery. Each of these differences was found to be statistically significant ($p < 0.001$). CONCLUSION: Negative pressure dressing improves graft take in burns patients and can particularly be COnsidered when wound bed and grafting COnditions seem less-than-ideal. The negative pressure can also be effectively assembled using locally available materials thus significantly reducing the COst of treatment.

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PMID: **21723044** CI

Thomas, R. J., Kishore, R. and Kisku, S.

A helping clamp for thoraCOsCOPic plication of eventration of the diaphragm

J Indian Assoc Pediatr Surg; 2011, 16 (3): 97-8

BACKGROUND AND AIM: It is difficult to suture an extremely thin and billowed up COngenital eventration

of the diaphragm thoraCOsCOPically, without insufflation. MATERIALS AND METHODS: The authors describe their technique using an intestinal clamp to COntrol the redundant tissue and a feeding tube as a flexible knot pusher, to perform the thoraCOsCOPic plication without risking hypercapnia. RESULTS: A satisfactory result was obtained in all the four children. CONCLUSION: This is a useful adjunctive for thoraCOsCOPic plication of diaphragmatic eventration.

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PMID: **21897568** CI

Ahmed, M., Sureka, J., Chacko, G. and Eapen, A.

MRI findings in cranial eumycetoma

Indian J Radiol Imaging; 2011, 21 (4): 261-3

Cranial eumycetoma (CE) due to direct inoculation of *Madurella grisea* into the scalp is extremely rare. We describe a case of CE caused by direct inoculation of *M. grisea* with the characteristic MRI findings of the "dot-in-circle" sign and a COnglomeration of multiple, extremely hypointense "dots."

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PMID: **22223935** CO

Alexander, M. and Murthy, J. M.

Acute disseminated encephalomyelitis: Treatment guidelines

Ann Indian Acad Neurol; 2011, 14 (Suppl 1): S60-4

Address: Department of Neurological Sciences, Christian Medical College, Vellore, India.

PMID: **21847331** CO

Alexander, M., Prabhakar, A. T., Aaron, S., Thomas, M., Mathew, V. and Patil, A. K.

Utility of neurophysiological criteria in Guillain Barre syndrome: Subtype spectrum from a tertiary referral hospital in India

Neurol India; 2011, 59 (5): 722-6

Background: The Guillain Barre' syndrome (GBS) is a heterogeneous disease with various subtypes, the

prevalence of which would depend on the geographic region. ReCOgnition of these subtypes is of clinical importance since each subtype has an independent pathogenesis and different type of pathology and prognosis. Objectives: To study the various subtypes of GBS using the various published electrophysiological criteria. Design: Retrospective descriptive study. Materials and Methods: In a tertiary care hospital setting, the study COmpared the various published criteria for demyelination in GBS. The charts of 115 COnsecutive patients referred for electrodiagnostic evaluation to the Electromyography laboratory between July 2000 and June 2006 were reviewed. Results: Of the 115 patients, 51 (44.4%) patients had axonal forms of GBS and 44 (38.2%) patients had acute inflammatory demyelinating polyradiculoneuropathy (AIDP). Applying the various published criteria, the number of patients categorized under the AIDP subtype ranged between 23.4% and 67.2%. COncclusion: In this study 44% patients had axonal forms of the disease, 38.2% patients had AIDP subtype and 17% remained unclassified. The most sensitive criteria to identify AIDP were the criteria proposed by Albers and COlleagues and the Dutch group.

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PMID: 22019658CO

Aleyamma, T. K., Kamath, M. S., Muthukumar, K., Mangalaraj, A. M. and George, K.

Affordable ART: a different perspective

Hum Reprod; 2011, BACKGROUNDAlthough approximately 10% of the population is affected by infertility, the treatment option of in-vitro fertilisation (IVF) remains unaffordable for the majority of infertile COuples. We have initiated a lowCOst programme inCOrporating an unCOmmonly used, but reCOgnized, ovarian stimulation protoCOl, together with certain COstlimiting initiatives in an established assisted reproductive technology (ART) set up.METHODSThe medical reCOrds of women who underwent the lowCOst programme were analysed. Clomiphene citrate 50 mg daily was administered from Day 2 of the cycle and COntinued till the day of hCG trigger, thus preventing

the LH surge. Intermittent doses of human menopausal gonadotrophin 150 IU were administered on alternate days from the 5th day onwards. Oocyte retrieval was carried out once at least two follicles of >18 mm were identified. The cycle was monitored by ultrasound only, with embryo transfer being carried out on Day 3. Clinical outCOmes were reCOrded together with an estimation of the direct COsts per cycle. Direct COst calculations did not include professional charges or facility COsts.RESULTSO f 143 women evaluated, 104 women underwent embryo transfer. The live birth rate and clinical pregnancy rate per embryo transfer were 19 and 22%. The live birth rate per initiated cycle was 14% (20/143). The multiple pregnancy rate was 26% with no case of ovarian hyperstimulation syndrome being reCOrded. The average direct COst per cycle was US\$ 675 for IVF and US\$ 725 for an ICSI treatment cycle.CONCLUSIONSUsing this protoCOl, together with several COstcutting measures, we achieved an acceptable live birth rate per transfer of 19% at a reasonable COst. This approach COuld be used by established ART centres to provide treatment to COuples who cannot afford COnventional ART.

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PMID: 21987524CO

Anuradha, C., Mittal, R., YaCOB, M., Manipadam, M. T., Kurian, S. and Eapen, A.

Eosinophilic disorders of the gastrointestinal tract: imaging features

Diagnostic and interventional radiology; 2011

Eosinophilic disorders of the gastrointestinal tract are increasingly rare but remain an important cause of long-standing gastrointestinal symptoms. Diagnosis is usually delayed because the disease mimics other inflammatory disorders and is often not suspected initially. We report a series of four cases to highlight the various imaging appearances of this COndition. Two patients presented with upper gastrointestinal involvement, one patient presented with small and large bowel involvement, and one patient presented with diffuse involvement of the entire gastrointestinal tract.

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PMID: **21948696** CO

Asha, H. S., Seshadri, M. S., Paul, T. V., Abraham, O. C., Rupali, P. and Thomas, N.

HIV lipodystrophy: An objective definition using DXA derived regional fat ratios in a South Asian population
Endocr Pract; 2011, 1-32

Objective: To develop an objective definition of HIV lipodystrophy using regional fat mass ratios, and to assess the utility of anthropometric and skin fold measurements in the initial screening for lipodystrophy. **Methods:** Male subjects aged between 25 to 50 years with proven HIV infection (HAART naive and those on successful HAART) were studied, and COmpared with BMI matched HIV negative COntrols. Anthropometric variables, body COmposition (DXA) and metabolic parameters were COmpared between the three groups and between those with, and those without lipodystrophy. **Results:** Truncal fat / lower limb fat mass ratio >2.28 identified 54.3% of HIV patients on HAART as lipodystrophic, and had the highest odd's ratio for predicting metabolic syndrome. 'Clinical diagnosis of lipodystrophy' and the 'clinical sCOring system' had too many false positives and false negatives. Triceps skin fold thickness (SFT) / BMI ratio <0.49 and abdominal SFT / triceps SFT ratio >1.385 have good sensitivity, but poor specificity in identifying lipodystrophy. COmpared to HAART naive HIV patients, those on HAART had significantly higher insulin resistance; a significantly greater proportion had impaired gluCOse tolerance and dyslipidemia. Among patients on HAART, individuals with lipodystrophy had a greater degree of insulin resistance, higher triglycerides and lower HDL cholesterol. **COncclusion:** Truncal fat / lower limb fat mass ratio in BMI matched normal subjects can be used to derive cut-off values to objectively define lipodystrophy in HIV infected subjects. Defining lipodystrophy this way is better at identifying those with increased cardiovascular risk. Triceps SFT / BMI and abdominal SFT / Triceps SFT ratios may be useful as screening tools in resource poor settings.

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PMID: **21856599** CO

Asha, H. S., Sudeep, K., Alexander, M., Korula, A., Gnanamuthu, B. R. and Thomas, N.

Cushing's syndrome in a case of thymic carcinoma
Indian J Endocrinol Metab; 2011, 15 (4): 346-8

A 29-year-old gentleman presented with episodic features suggestive of Cushing's syndrome. He was evaluated and diagnosed with ectopic AdrenoCOrtiCOtropic hormone (ACTH)-dependent Cushing's syndrome due to a thymic tumor. The thymic lesion was excised and histopathology COnfirmed thymic carcinoma with neuroendocrine differentiation, with local, perineural, and vascular invasion. The postoperative problems and further treatment options have been discussed in this case report.

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PMID: **22029011** CO

Balagopal, K., Muthusamy, K., Alexander, M. and Mani, S.

Methyl bromide poisoning presenting as acute ataxia
Neurol India; 2011, 59 (5): 768-9

Address: Department of Neurology, Christian Medical COllege, Vellore, India.

PMID: **22019671** CO

Balaji, G. G., Mathuram, A. J., Arockiaraj, J. and Varghese, G. M.

A Rare Case of CryptoCOccal Infection of Talus with Pathological Fracture that Healed with Medical Management

The Journal of foot and ankle surgery : official publication of the American COllege of Foot and Ankle Surgeons; 2011, Skeletal involvement occurs in 5% to 10% of reported cases of disseminated cryptoCOccal infection. We are reporting a very rare presentation of cryptoCOccal infection of the talus with pathological fracture, which healed with medical management. Our

patient had pain and swelling around the ankle associated with fever. Radiologically, he had a lytic lesion of the talus with fracture of the talar neck. Biopsy and cultures revealed cryptococcal infection. He was treated with surgical debridement combined with antifungal therapy, and the fracture healed well by 5 months. At the end of the 1-year follow-up, he had painless ankle movement and there was no evidence of recurrence. He was able to walk without support or limp, and he could wear normal footwear.

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PMID: 21820328CO

Balaji, V., Jeremiah, S. S. and Baliga, P. R.

Polymyxins: Antimicrobial susceptibility concerns and therapeutic options

Indian J Med Microbiol; 2011, 29 (3): 230-42

The increasing prevalence of multidrug-resistant nosocomial pathogens such as *Acinetobacter baumannii*, *Pseudomonas aeruginosa* and *Klebsiella pneumoniae* poses a great challenge to the treating physicians. The paucity of newer effective antimicrobials has led to renewed interest in the polymyxin group of drugs, as a last resort for treatment of gram-negative bacterial infections. There is a dearth of information on the pharmacological properties of colistin, leading to difficulties in selecting the right dose, dosing interval, and route of administration for treatment, especially in critically-ill patients. The increasing use of colistin over the last few years necessitates the need for accurate and reliable in vitro susceptibility testing methods. Development of heteroresistant strains as a result of colistin monotherapy is also a growing concern. There is a compelling need from the clinicians to provide options for probable and possible colistin combination therapy for multidrug-resistant bacterial infections in the ICU setting. Newer combination drug synergy determination tests are being developed and reported. There are no standardized recommendations from antimicrobial susceptibility testing reference agencies for the testing and interpretation of these drug combinations. Comparison and analysis of these reported methodologies may help to understand and assist the microbiologist to choose the best method

that produces accurate results at the earliest. This will help clinicians to select the appropriate combination therapy. In this era of multidrug resistance it is important for the microbiology laboratory to be prepared, by default, to provide timely synergistic susceptibility results in addition to routine susceptibility, if warranted. Not as a favour or at request, but as a responsibility.

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PMID: 21860102CO

Balukrishna, S., Jennifer, P. and Viswanathan, P. N.

Solitary subcutaneous metastasis from squamous cell carcinoma of the esophagus: a case report and brief review of literature

J Gastrointest Cancer; 2011, 42 (4): 269-71

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PMID: 21174174CO

Banerji, J. S.

Veiled right kidney sign in retroperitoneal duodenal perforation after endoscopic retrograde cholangiopancreatography

Urology; 2011, 78 (2): 325-6

Retroperitoneum due to duodenal perforation after endoscopic retrograde cholangiopancreatography is rare. Recognizing the presence of free air, which outlines the right kidney, is essential for its early diagnosis and appropriate management.

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PMID: 21256547CO

Benjamin, S. J., Daniel, A. B., Kamath, A. and Ramkumar, V.

Anthropometric measurements as predictors of cephalopelvic disproportion: Can the diagnostic accuracy be improved?

Acta Obstet Gynecol Scand; 2011, Objective. We assessed the efficacy of maternal anthropometric

measurements and clinical estimates of fetal weight in isolation and in combination as predictors of cephalo-pelvic disproportion (CPD). Design. Prospective cohort study. Setting. Tertiary care teaching hospital, two affiliated hospitals with facilities for conducting cesarean delivery and seven affiliated primary care facilities with no operation theatres. Sample. Primigravidae over 37 weeks gestation attending these facilities during a 20 month period with a singleton pregnancy in vertex presentation. Methods. 249 primigravidae had several anthropometric measurements. Fetal weight was estimated. Differences in these measurements between the vaginal delivery and CPD groups were analyzed. The validity of these measurements in predicting CPD was analyzed by plotting Receiver Operating Characteristic curves and by logistic regression analysis. Main Outcome Measure. Mode of delivery. Results. Maternal height, foot size, inter-trochanteric diameter and bis-acromial diameter showed the highest positive predictive values for CPD. Combining some maternal measurements with estimates of fetal weight increased predictive values modestly, which are likely to be greater if the estimates of fetal weight are close to the actual birth weight. Based on multivariate analysis the risk factors for CPD in our population were foot length ≤ 23 cm, inter-trochanteric diameter ≤ 30 cm and estimated fetal weight ≥ 3000 g. Conclusions. Maternal anthropometric measurements can predict CPD to some extent. Combining maternal measurements with clinical estimates of fetal weight only enhances the predictive value to a relatively modest degree (positive predictive value 24%).

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PMID: 21895610 CO

Boaz, R. J., Ramakant, P., Ebenazer, A., Pai, R., Rajaratnam, S., Abraham, D. and Paul, M. J.

Role of Cortical sparing adrenalectomy and novel variant of mutation in patient with von Hippel-Lindau disease
Indian J Endocrinol Metab; 2011, 15 Suppl 4 S402-5

Neurofibromatosis type 1 is the most common phakomatoses and is inherited in autosomal dominant fashion with complete penetrance. Secondary hypertension is common in these patients due to various causes including adrenal tumors. Pheochromocytoma is a rare catecholamine producing tumor seen in 0.5% to 5% of patients with neurofibromatosis. The combination of pheochromocytoma with neurofibromatosis is rarely reported in the literature. We recently encountered an elderly lady with this combination who successfully underwent adrenalectomy. We report the case for the uncommon occurrence and to highlight the relevant literature review about pheochromocytoma in neurofibromatosis.

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PMID: 22145147 CO

Booshanam, D. S., Cherian, B., Joseph, C. P., Mathew, J. and Thomas, R.

Evaluation of posture and pain in persons with benign joint hypermobility syndrome
Rheumatol Int; 2011, 31 (12): 1561-5

The objective of the present study is to compare and quantify the postural differences and joint pain distribution between subjects with benign joint hypermobility syndrome (BJHS) and the normal population. This observational, non-randomized, and controlled study was conducted at Rheumatology and Physical Medicine and Rehabilitation Medicine Departments of a tertiary care teaching hospital. Subjects comprise 35 persons with diagnosis of BJHS, and the control group was matched for age and sex. ReedCO's Posture score (RPS) and visual analogue scale (VAS) were the outcome measures. The subjects were assessed for pain in ten major joints and rated on a VAS. A standard posture assessment was conducted using the ReedCO's Posture score. The

same procedure was executed for an age- and sex-matched Control group. Mean RPS for the BJHS group was 55.29 +/- 8.15 and for the normal group it was 67 +/- 11.94. The most Common postural deviances in subjects with BJHS were identified in the following areas of head, hip (Sagittal plane), upper back, trunk, and lower back (COronal plane). Intensity of pain was found to be more in BJHS persons than that of the normal persons, and the knee joints were the most affected. The present study COMpared and quantified the postural abnormalities and the pain in BJHS persons. The need for postural re-education and specific assessment and training for the most affected joints are discussed. There is a significant difference in posture between subjects with BJHS and the normal population. BJHS persons need special attention to their posture re-education during physiotherapy sessions to reduce long-term detrimental effects on the musculoskeletal system.

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PMID: 20490806CO

Bugalia, A., Abraham, A., Balasubramanian, P., Srivastava, A. and Nair, S.

Mast cell sarCOma of the small intestine: a case report

J Clin Pathol; 2011, **Address:** Department of General Pathology, Christian Medical COLlege, Vellore, Tamil Nadu, India.

PMID: 21778298CO

Chacko, B., Peter, J. V. and Balaji, V.

The new delhi metallo-Beta-lactamases: their origins and implication for the intensivist

J Glob Infect Dis; 2011, 3 (3): 309

Address: Medical Intensive Care Unit, Christian Medical COLlege and Hospital, Vellore, India.

PMID: 21887070CO

Chacko, B., Peter, J. V., Patole, S., Fleming, J. J. and Selvakumar, R.

Authors' reply

Indian journal of critical care medicine : peer-reviewed, official publication of Indian Society of Critical Care Medicine; 2011, 15 (3): 196-7

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PMID: 22013321CO

Chacko, B., Peter, J. V., Pichamuthu, K., Ramakrishna, K., Moorthy, M., Karthik, R. and John, G.

Cardiac manifestations in patients with pandemic (H1N1) 2009 virus infection needing intensive care

J Crit Care; 2011, PURPOSE: To characterize the cardiac manifestations in severe pandemic (H1N1) 2009 virus [P(H1N1)2009v] infection. MATERIALS AND METHODS: Adult patients admitted to the intensive care unit were recruited. Patients with an elevated troponin I (>1.5 ng/mL) and those requiring vasoactive agents had an echocardiogram. Myocardial injury was defined as elevated troponin I. Patients with reduced ejection fraction lower than 50% were diagnosed as having left ventricular systolic dysfunction. Myocarditis was presumed when myocardial injury was associated with global myocardial dysfunction. Myocardial injury and dysfunction were CORrelated with mortality and expressed as odds ratio (OR) with 95% CONFidence intervals (CI). RESULTS: Thirty-seven patients presented at 6.4 (SD 3.2) days of illness. Four patients had valvular heart disease and 1 preexisting ischemic heart disease. Seventeen (46%) patients had evidence of myocardial injury. Twenty of 28 patients in whom an echocardiogram was clinically indicated had left ventricular systolic dysfunction. Of these, 14 patients were diagnosed as having myocarditis, and most of them (12 patients) developed it early. Myocarditis was associated with longer duration of vasoactive agents (OR 1.46, 95% CI 1.06-2.02) and mortality. Patients with elevated troponin I had an increased risk of death (OR 8.7, 95% CI 1.5-60). A higher mortality was observed in patients with left ventricular systolic dysfunction (OR 9.6, 95% CI 1.7-58) COMpared with those in whom an echocardiogram was normal or not indicated. CONCLUSION: In our COhort of severe P(H1N1)2009v

infection, myocardial injury and dysfunction was frequent and associated with high mortality.

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PMID: 21737242 CO

Chacko, M. P., Mathan, A. and Daniel, D.

Para-Bombay: A blind spot in blood grouping?
Asian J Transfus Sci; 2011, 5 (2): 182-3

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PMID: 21897607 CO

Chandran Nair, S., Viswabandya, A. and Srivastava, A.

Diagnosis and management of von Willebrand disease: a developing COuntry perspective
Semin Thromb Hemost; 2011, 37 (5): 587-94

Special challenges exist in the management of patients with von Willebrand disease (VWD) because of limitations in diagnostic facilities and therapeutic options. However, even within these limitations, it is possible to establish COmprehensive services for this COndition. Our data show that among 202 patients with VWD, 107 were type 3, 62 were type 1, and the others different categories of type 2. Basic tests such as bleeding time and activated partial thromboplastin time with factor (F)VIII COagulant are able to diagnose most of those with severe disease. We have been able to adapt the specific tests such as von Willebrand factor (VWF) ristocetin COfactor and VWF antigen from the tedious batched manual methods to COst-effective automated methods on advanced COagulometers. Discriminatory tests such as VWF COllagen binding, VWF:FVIII B, ristocetin-induced platelet agglutination (RIPA) are done in batches. Therapeutic options and for the treatment of bleeding include desmopressin, cryoprecipitate, and intermediate purity VWF-COntaining clotting factor COncentrates. Tranexamic acid is also widely used as well as hormonal therapy for menorrhagia. We have also shown that modest doses of intermediate purity FVIII (Koate DVI; Talecris Biotherapeutics, Raleigh, NC, USA) at 35 IU/kg

preoperatively and 10 to 20 IU/kg after that are sufficient for surgical hemostasis in these patients.

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PMID: 22102204 CO

Chandrasekharan, R., Thomas, M. and Rupa, V.

COmparative study of orbital involvement in invasive and non-invasive fungal sinusitis
J Laryngol Otol; 2011, 1-7

Objective:To investigate differences in orbital involvement in patients with invasive versus non-invasive fungal sinusitis.
Method:One hundred COsecutive cases of fungal sinusitis were assessed clinically and by COmputed tomography scan to evaluate orbital involvement.
Results:Clinical orbital involvement was more COmmon in invasive (73.5 per cent) than non-invasive (12.1 per cent) fungal sinusitis ($p = 0.000$). COmputed tomography scanning showed similar orbital involvement in both groups, except for erosion of the floor of the orbit, which was more COmmon in patients with invasive fungal sinusitis ($p = 0.01$). Extra-ocular muscle enlargement (44.4 vs 4 per cent, $p = 0.01$) and optic atrophy (44.4 vs 0 per cent, $p = 0.003$) were more COmmon in chronic than acute invasive fungal sinusitis. Four patients (16 per cent) with acute invasive fungal sinusitis had no evidence of orbital involvement on scanning, despite clinical evidence of optic atrophy.
COncclusion:Orbital involvement is more COmmon in invasive than non-invasive fungal sinusitis. The difference is more evident clinically than on COmputed tomography scanning. Patients with acute invasive fungal sinusitis may have limited evidence of orbital involvement on scanning, despite extensive clinical disease.

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PMID: 22182506 CO

Chandy, A., Shah, S. and Chandrashekar, L.

Pink verruCOus plaque over the right foot
Int J Dermatol; 2011, 50 (7): 793-4

Address: Department of Dermatology, Christian Medical College, Vellore, India.

PMID: 21699512CO

Chatterjee, P., Eapen, A., Perakath, B. and Singh, A.

Radiologic and pathological COrrrelation of staging of rectal cancer with 3 Tesla magnetic resonance imaging
Can Assoc Radiol J; 2011, 62 (3): 215-22

PURPOSE: To assess the sensitivity and specificity of 3 Tesla magnetic resonance imaging (MRI) in the prediction of extramural spread and metastatic adenopathy in rectal carcinoma. **MATERIALS AND METHODS:** This was a prospective COhort study that included forty COnsecutive patients with rectal carcinoma from the Department of COlorectal Surgery. Three Tesla (3T) MRI was performed on these patients after a 4-hour fast and cleansing water enema. T1-weighted and T2-weighted images were obtained with high-resolution images T2-weighted sequences through the pelvis. Sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) of 3T MRI for prediction of metastatic adenopathy and extramural spread were calculated. The TNM staging based on MRI was COmpared with histopathology of the resected specimen (taken as the criterion standard). **RESULTS:** In our study, sensitivity, specificity, PPV, and NPV of 3T MRI for prediction of metastatic adenopathy were 100%, 78.3%, 77.3%, and 100%, respectively. Sensitivity, specificity, PPV, and NPV of 3T MRI for prediction of extramural tumour spread were 100% and 20%, 89.7% and 100%, respectively (ie, prediction of stages T3 and above). **CONCLUSION:** MRI allows accurate measurement of the depth of extramural tumour spread. In the assessment of metastatic adenopathy, however, MRI has a low specificity. This study shows that MRI is unlikely to miss any significant parameter in staging of rectal carcinoma. However, it has a tendency to overstage extramural spread of tumour.

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PMID: 20591608CO

Chelliah, S. T., Keshava, S. N., Moses, V., Surendrababu, N. R., Zachariah, U. G. and Eapen, C.

Measurement of hepatic venous pressure gradient revisited: Catheter wedge vs balloon wedge techniques
Indian J Radiol Imaging; 2011, 21 (4): 291-3

AIMS: To evaluate the accuracy of measurement of hepatic venous pressure gradient by catheter wedge as COmpared to balloon wedge (the gold standard). **MATERIALS AND METHODS:** Forty-five patients having a clinical diagnosis of intrahepatic portal hypertension were subjected to the two different types of pressure measurements (catheter wedge and balloon wedge) during transjugular liver biopsy under fluorosCOpic guidance. **STATISTICAL ANALYSIS:** Spearman's rank COrrrelation COefficient, Bland-Altman plot for agreement, and single measure intraclass COrrrelation were used for analysis of data. **RESULTS:** There was a close COrrrelation between the results obtained by both the techniques, with highly significant COncORDance ($P < 0.0001$). Hepatic venous pressure gradients as measured by the catheter wedge technique were either equal to or less than those obtained by the balloon wedge technique. **CONCLUSIONS:** The difference in hepatic venous pressure gradients measured by the two techniques is insignificant.

Address: Department of Radiology, Christian Medical College, Vellore, Tamil Nadu, India.

PMID: 22223943CO

Chowdhury, S. D., Dutta, A. K., Pal, S., Leena, R. V. and Chacko, A.

Jejunogastric intussusception causing gastrointestinal bleeding
EndosCOpy; 2011, 43 Suppl 2 E247

Address: Department of GI Sciences, Christian Medical College, Vellore, Tamil Nadu, India.

PMID: 21837596CO

Christopher, D. J., James, P., Daley, P., Armstrong, L., Isaac, B. T., Thangakunam, B., Premkumar, B., Zwerling, A. and Pai, M.

High annual risk of tuberculosis infection among nursing students in South India: a COhort study

PLoS One; 2011, 6 (10): e26199

BACKGROUND: Nurses in developing COuntries are frequently exposed to infectious tuberculosis (TB) patients, and have a high prevalence of TB infection. To estimate the incidence of new TB infection, we recruited a COhort of young nursing trainees at the Christian Medical COLlege in Southern India. Annual tuberculin skin testing (TST) was CONducted to assess the annual risk of TB infection (ARTI) in this COhort. **METHODOLOGY/PRINCIPAL FINDINGS:** 436 nursing students COMpleted baseline two-step TST testing in 2007 and 217 were TST-negative and therefore eligible for repeat testing in 2008. 181 subjects COMpleted a detailed questionnaire on exposure to tuberculosis from workplace and social COntacts. A physician verified the questionnaire and clinical log book and screened the subjects for symptoms of active TB. The majority of nursing students (96.7%) were females, almost 84% were under 22 years of age, and 80% had BCG scars. Among those students who underwent repeat testing in 2008, 14 had TST CONversions using the ATS/CDC/IDSA CONversion definition of 10 mm or greater increase over baseline. The ARTI was therefore estimated as 7.8% (95%CI: 4.3-12.8%). This was significantly higher than the national average ARTI of 1.5%. Sputum COollection and caring for pulmonary TB patients were both high risk activities that were associated with TST CONversions in this young nursing COhort. **CONCLUSIONS:** Our study showed a high ARTI among young nursing trainees, substantially higher than that seen in the general Indian population. Indian healthcare providers and the Indian Revised National TB COntrol Programme will need to implement internationally reCOMMended TB infection COntrol interventions to protect its health care workforce.

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PMID: 22022565 **CO**

Das, S., Jagan, L., Isiah, R., Rajesh, B., Backianathan, S. and Subhashini, J.

Nanotechnology in onCOlogy: Characterization and in vitro release kinetics of cisplatin-loaded albumin nanoparticles: Implications in anticancer drug delivery
Indian J PharmaCOI; 2011, 43 (4): 409-13

CONTEXT: Nanotechnology is an empowering technology that holds promise in cancer therapeutics by increasing the ratio of tumor COntrol probability to normal tissue COmplication probability. It can increase the bioavailability of the drug at the target site, reduce the frequency of administration and reach otherwise lesser-accessible sites. The present study shows the feasibility of the cisplatin-loaded albumin nanoparticle as a sustained delivery system. **AIMS:** Cisplatin is one of the most widely used chemotherapeutic agents for the treatment of malignant disorders. COntventional cisplatin formulation given as intravenous infusion has low bioavailability to the target organ in addition to significant side-effects, like ototoxicity and nephrotoxicity. The aim of this study was to develop a protein-based nanoparticulate system for sustained release of cisplatin. **MATERIALS AND METHODS:** Nanoparticles were prepared by the COacervaton method of microcapsulation and chemical cross-linking with glutaraldehyde. Particle size was characterized by dynamic light scattering and transmission electron microsCOpy. **RESULTS AND CONCLUSIONS:** Using the COacervation method, nanoparticles of less than 70 nm diameter were produced. Drug encapsulation measured by ultraviolet spectroscopy varied from 30% to 80% for different ratios of cisplatin and protein. In vitro release kinetics shows that the nanoparticle-based formulation has biphasic release kinetics and is capable of sustained release COmpared with the free drug (80% release in 45 h). The study proves the feasibility of the albumin-based cisplatin nanoparticle formulation as a sustained release vehicle of cisplatin.

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PMID: 21844995 **CO**

Duba, A. S., Rajkumar, A. P., Prince, M. and JaCOB, K. S.

Determinants of disability among the elderly population in a rural south Indian COMMunity: the need to study local issues and CONTEXTs

Int Psychogeriatr; 2011, 1-9

ABSTRACTBackground: Disability among the elderly is a cause of significant burden. There is dearth of relevant research from low- and middle-inCOME COuntries. We aimed to establish the nature and factors associated with disability among the elderly in a rural south Indian COMMunity.Methods: We recruited 1000 participants aged over 65 years from Kaniyambadi block, Vellore, India. We assessed their disability status, sociodemographic profile, psychiatric morbidity, COgnitive functioning and anthropometrics using the following structured instruments: WHO Disability Assessment Scale II, Geriatric Mental State, COMMunity Screening Instrument for Dementia, and Neuropsychiatric Inventory. We employed appropriate multivariate statistics to study the factors associated with a higher level of disability and to determine the population attributable fractions for various modifiable risk factors.Results: Advanced age, illiteracy, hunger, poor nutrition, arthritis, hearing impairment, gastro-intestinal and respiratory diseases, dementia and travel COsts to primary health facilities increased the risk of disability significantly. Hypertension, diabetes and depression were not associated with disability. Modifiable social determinants and medical diseases together COntributed to disability in this population.COncclusion: Locally relevant social determinants COmbine with prevalent medical diseases to produce the disability burden among elderly. There is a need to focus on local CONTEXTs and modifiable risk factors to design locally appropriate public health policies and interventions.

Address: Department of Psychiatry, Christian Medical College, Vellore, India.

PMID: 21933464CO

Edison, E. S., Shaji, R. V., Chandy, M. and Srivastava, A.

Interaction of Hemoglobin E with Other Abnormal Hemoglobins

Acta Haematol; 2011, 126 (4): 246-248

No abstract available.

Address: Department of Haematology, Christian Medical College, Vellore, India.

PMID: 21986214CO

Ekbote, A. V., Mandal, K., Agarwal, I., Sinha, R. and Danda, S.

FanCONi- Bickel Syndrome: Mutation in An Indian Patient
Indian J Pediatr; 2011

FanCONi -Bickel Syndrome (FBS) is described as an autosomal recessive GlyCOgen Storage Disorder type XI. The underlying enzyme defect is unknown. The gene GLUT2 maps to 3q26.1-q26.3; enCOdes a facultative gluCOse transporter gene. A 6-y-old girl presented with the characteristic facial gestalt, gluCOse and galactose intolerance, proximal renal tubular dysfunction, hepatomegaly, and altered liver function. To COnfirm the diagnosis, mutation analysis was performed. Patient showed homozygous mutation in exon 9 of GLUT2 gene 1093 C>T, the mutation causing transition from arginine to stop COdon at position 365 and causing premature termination of protein. The mutation was found to be causative as previously described. To the best of authors' knowledge this is first Indian patient ever reported with a mutation. Genetic testing can be employed as a method of COnfirming diagnosis, especially where definitive mutation can be useful for prenatal diagnosis and prognostication.

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PMID: 21972075CO

Gladstone, B. P., Ramani, S., Mukhopadhyaya, I., Muliyl, J., Sarkar, R., Rehman, A. M., Jaffar, S., Gomara, M. I., Gray, J. J., Brown, D. W., Desselberger, U., Crawford, S. E., John, J., Babji, S., Estes, M. K. and Kang, G.

Protective effect of natural rotavirus infection in an Indian birth COhort

The New England journal of medicine; 2011, 365 (4): 337-46

BACKGROUND: More than 500,000 deaths are attributed to rotavirus gastroenteritis annually worldwide, with the highest mortality in India. Two successive, naturally occurring rotavirus infections have been shown to CONfer COMplete protection against moderate or severe gastroenteritis during subsequent infections in a birth COhort in MexiCO. We studied the protective effect of rotavirus infection on subsequent infection and disease in a birth COhort in India (where the efficacy of oral vaccines in general has been lower than expected). **METHODS:** We recruited children at birth in urban slums in Vellore; they were followed for 3 years after birth, with home visits twice weekly. Stool samples were COLlected every 2 weeks, as well as on alternate days during diarrheal episodes, and were tested by means of enzyme-linked immunosorbent assay and polymerase-chain-reaction assay. Serum samples were obtained every 6 months and evaluated for seroCONversion, defined as an increase in the IgG antibody level by a factor of 4 or in the IgA antibody level by a factor of 3. **RESULTS:** Of 452 recruited children, 373 COMpleted 3 years of follow-up. Rotavirus infection generally occurred early in life, with 56% of children infected by 6 months of age. Levels of reinfection were high, with only approximately 30% of all infections identified being primary. Protection against moderate or severe disease increased with the order of infection but was only 79% after three infections. With G1P[8], the most COMmon viral strain, there was no evidence of homotypic protection. **CONCLUSIONS:** Early infection and frequent reinfection in a locale with high viral diversity resulted in lower protection than has been reported elsewhere, providing a possible explanation why rotavirus vaccines have had lower-than-expected efficacy in Asia and Africa. (Funded by the WellCOme Trust.).

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PMID: 21793745CO

Goel, A., Ramakrishna, B., Madhu, K., Zachariah, U., Ramachandran, J., Keshava, S. N., Elias, E. and Eapen, C. E.

Idiopathic noncirrhotic intrahepatic portal hypertension is an ongoing problem in India

Hepatology; 2011, 54 (6): 2275-6

Address: Departments of Hepatology, Christian Medical COLlege, Vellore, India.

PMID: 22030741CO

Irodi, A., Joseph, E., Gnanaumuthu, B. R., Thomas, M. and Keshava, S. N.

An unusual mediastinal mass

Ann Thorac Surg; 2011, 92 (5): 1904

Address: Department of Radiology, Christian Medical COLlege and Hospital, Vellore, Tamil Nadu, India.

PMID: 22051295CO

Ismail, A. M., Devakumar, S., Anantharam, R., Fletcher, G. J., Subramani, T., John, G. T., Daniel, D. and Abraham, P.

Low frequency of occult hepatitis B infection in anti-HBc seropositive blood donors: experience from a tertiary care centre in South India

Blood Transfus; 2011, 1-3

Address: Department of Clinical Virology, Christian Medical COLlege, Vellore, India.

PMID: 22153686CO

JaCOB, K. S.

Repackaging mental health programs in low- and middle-inCOme COuntries

Indian J Psychiatry; 2011, 53 (3): 195-8

Address: Department of Psychiatry, Christian Medical COLlege, Vellore, Tamil Nadu, India.

PMID: 22135435CO

John, N., Thangakunam, B., Devasahayam, A. J., Peravali, V. and Christopher, D. J.

Maximal oxygen uptake is lower for a healthy Indian population COmpared to white populations
J Cardiopulm Rehabil Prev; 2011, 31 (5): 322-7

PURPOSE: : Presently used prediction equations for maximal oxygen uptake are mostly derived from studies of western populations. However, the interracial differences are quite large when prediction equations for the Western-white population are applied to Asian-Indians. The present study was aimed at the initial development of a prediction equation for the healthy sedentary Indian participants using symptom limited graded incremental exercise testing and to COmpare the new regression equation to other published data. **METHODS:** : Participants were staff and caregivers of patients from different states of India. All participants COmpleted a maximal graded exercise test on a motorized treadmill at Christian Medical COLlege, Vellore, Tamil Nadu to determine maximal oxygen uptake (O₂max). **RESULTS:** : Predictive equations for both men and women were obtained from multiple linear regression analysis and significant COrrrelations were found for weight and height. The COrrrelation COefficients of the new regression equations with measured O₂max of study population were R = .511 for men and R = .656 for women. These were COmpared with other published equations with differences ranging from 7% to 50% for men and 10% to 36% for women. **CONCLUSIONS:** : The present study derived a prediction equation for O₂max applicable to the Asian-Indian population. The predicted maximal oxygen uptake of the study population using the new equation is significantly lower than the white population. The new equation may facilitate more meaningful interpretation of the test data in this population and possibly a wider use.

Address: Department of Pulmonary Medicine (Ms John, Dr Thangakunam, Mr Devasahayam, and Dr Christopher), and Department of Biostatistics (Ms Peravali), Christian Medical COLlege, Vellore, India.

PMID: 21734591 **CO**

John, T. J.

Efficacy and safety of azithromycin for typhoid Fever
Indian Pediatr; 2011, 48 (10): 823-4

Address: 439 Civil Supplies Godown Lane, Kamalakshipuram, Vellore, TN, 632 002

PMID: 22080694 **CO**

John, T. J., Plotkin, S. A. and Orenstein, W. A.

Building on the success of the Expanded Programme on Immunization: Enhancing the focus on disease prevention and Control
Vaccine; 2011

The Expanded Programme on Immunization (EPI) has succeeded in establishing a vaccine delivery system in all low and middle inCOme (LMI) COuntries. Because EPI has focused on immunization delivery, its major outCOme is measured in many COuntries only as vaccine COverage, not as disease reduction, the real goal of EPI. Monitoring disease reduction requires real-time case-based disease surveillance and appropriate interventions, for which a functional public health infrastructure is needed. If the highest priority for assessing impact of EPI shifts to disease prevention and COntrol from vaccine COverage, the programme may be transformed to one of COntrol of childhood COmmunicable diseases (CCCD), with the potential of expanding the range of diseases of children and adults for COntrol and of integrating all other current vertical (single disease) COntrol efforts with it. EPI provides the essential platform on which CCCD can be built to create a public health infrastructure.

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PMID: 21971446 **CO**

Jose, J., Narayanan, K., Chacko, S. T. and George, O. K.

Infective endocarditis presenting with ST segment elevation

J Heart Valve Dis; 2011, 20 (4): 468-70

Despite diagnostic and therapeutic advances, mortality and morbidity associated with infective endocarditis (IE) remains high. COngestive heart failure and

Complications such as septic embolization and aortic root abscess are the main causes. Although aortic root abscess is a Common Complication of IE involving the aortic valve, acute myocardial infarction (AMI) is a rare Complication in patients with endocarditis, whether in the acute or later phase of infection. In most cases, the infarction is either anterior or anterolateral. To the best of the present authors' knowledge, only one case of infarction at a purely inferior site has been reported previously. In the present case, IE with an aortic root abscess presented clinically as an acute inferior wall myocardial infarction.

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PMID: 21863663 CO

Kabeerdoss, J., Pugazhendhi, S., Subramanian, V., Binder, H. J. and Ramakrishna, B. S.

Exposure to hookworms in patients with Crohn's disease: a case-CONTROL study
Aliment Pharmacol Ther; 2011, 34 (8): 923-30

SUMMARY: Background Helminths have been used to inhibit intestinal inflammation in patients with Crohn's disease. Aim This study was undertaken to determine if there is a protective association of prior hookworm infection with Crohn's disease, in a region where there is epidemiological transition from parasitic and infectious diseases to increased auto-inflammatory diseases. Methods Hookworm exposure was assessed by peripheral blood mononuclear cell (PBMC) activation by hookworm antigens in 78 patients with Crohn's disease and 75 healthy CONTROL participants. The change in proportion of T cells exhibiting CD69 after exposure to crude hookworm antigens was measured. Interferon-gamma ELISPOT response to a panel of six recombinant hookworm antigens was analysed. Results Patients with Crohn's disease were more often from an urban background ($P = 0.005$) Compared to CONTROLS, while their socioeconomic status was not significantly different. T cell activation (increase in CD3(+) CD69(+) population) by hookworm antigen was significantly higher in CONTROLS Compared to Crohn's disease patients ($P = 0.017$), while activation by the nonspecific mitogen

phytohemagglutinin was similar in both groups. Circulating T memory cells (CD3(+) CD45RO(+)) after exposure to hookworm antigens were not significantly different between the two groups. Mirroring these changes, interferon-gamma ELISPOT responses to hookworm antigens were seen in 36 of 75 CONTROLS Compared to 20 of 78 Crohn's disease patients (Fisher's exact $P = 0.005$). Multivariate analysis indicated that CD3CD69 shifts ($P = 0.019$), ELISPOT reactivity ($P = 0.039$) and place of residence ($P = 0.024$) were all independently associated with Crohn's disease. Conclusion The inverse association between Crohn's disease and hookworm antigen reactivity is Consistent with the hygiene hypothesis, but requires further exploration.

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PMID: 21848628 CO

Kapoor, N., Fleming, J. J., Ramakrishna, B., Hepzibah, J., Asha, H. S., Chacko, R. T., Eapen, A., Somasundaram, N. and Thomas, N.

An unusual cause for weight loss and diabetes
Hong Kong Med J; 2011, 17 (6): 505-6

Address: Department of Endocrinology, Diabetes and Metabolism, Christian Medical College, Vellore, India.

PMID: 22147325 CO

Kekre, N. S.

Urethral stricture disease - Have we found the magic wand?
Indian J Urol; 2011, 27 (3): 303-4

Address: Department of Urology, Christian Medical College, Vellore, Tamil Nadu, India. E-mail: editor@indianjurol.COM.

PMID: 22022049 CO

Koshy, B., Mandal, K., Srivastava, V. M., Loius, P. T. and Danda, S.

Familial 18p deletion syndrome and 18p partial trisomy inherited from a mother with balanced translocation
Clin Dysmorphol; 2011, 20 (3): 148-51

18p deletion syndrome can be easily missed in a clinical setting as the facial features, though typical, can be overlooked and the other features including growth retardation and learning disability are nonspecific. We present a family in which the proband has 18p deletion syndrome. The proband performed better on verbal skills than on performance tasks on intelligence testing. She had attention-deficit hyperactivity disorder, which required medication and behavioral therapy. Subsequent cytogenetic analysis in her elder brother who presented with learning difficulties showed partial trisomy 18p and the maternal karyotype is 46, XX,(15;18)(p11.2;p11.2). This is the first report of a family with a balanced maternal translocation resulting in 18p deletion in one sibling and 18p partial trisomy in the other.

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PMID: 21389850CO

Koshy, C. G., Chacko, B. R., Keshava, S. N., Stephen, E. and Agarwal, S.

Decision making in the treatment of peripheral arterial disease - A single-institution COmparative study using information from COlor doppler and digital subtraction angiogram studies
Indian J Radiol Imaging; 2011, 21 (4): 294-7

BACKGROUND: Numerous studies have COmpared the accuracy of COlor Doppler (CD) with that of digital subtraction angiography (DSA) in the diagnosis of peripheral arterial disease (PAD). However, only a few have looked at the influence of these diagnostic tests on the treatment decision in PAD. **AIM:** This study evaluated the differences in treatment decisions that were based on CD and with those based on DSA findings. **METHODS AND MATERIALS:** Findings from CD and DSA studies obtained in 40 patients were entered on line diagrams by two radiologists working separately. These were randomized and sent to three experienced clinicians - two vascular surgeons and one interventional radiologist. The treatment decisions of

the clinicians based on each proforma were COLlected and analyzed to look for the degree of agreement between Doppler-based and DSA-based decisions. **RESULTS:** There was fair to moderate agreement between CD-based and DSA-based decisions for all three clinicians, with some improvement in agreement with the addition of clinical data. The vascular surgeons showed better agreement with each other on treatment decisions COmpared to the interventional radiologist who showed a fair-to-moderate level of agreement with the vascular surgeons, which did not significantly change with the addition of clinical data. **CONCLUSION:** There is a fair to moderate agreement between treatment decisions based on CD findings and those based on DSA findings. We COnclude that CD along with clinical data is sufficient to make decisions in the treatment of PAD.

Address: Department of Radiology, Christian Medical College, Vellore, Tamil Nadu, India.

PMID: 22223944CO

Kota, A. A., Mittal, R. and Nayak, S.

Castleman's disease: A rare presacral tumour
COlorectal Dis; 2011,

Address: Department of Surgery Unit 2(COLOrectal Surgery) Christian Medical COLlege and Hospital, Vellore 632004 Tamil Nadu, India.

PMID: 21848666CO

Kulkarni, K. V., Sen, S., Karl, S. and Ravikumar, V. R.

Acute gastric volvulus: Late-onset ischemic COsequences and their management
J Indian Assoc Pediatr Surg; 2011, 16 (4): 148-51

We report three infants who presented with acute gastric volvulus and reCOVered initially after de-torsion, but later presented with sequelae due to ischemia of gastroesophageal junction, stomach and gastroduodenal junction. The first two infants COuld not be fed orally or by gastrostomy tube because of microgastria and stricture of the lower esophagus and gastroduodenal junction, and were managed on jejunostomy feeds, while the third child was managed on gastrostomy feeds till the gastric substitution surgery. The first case was treated nonsurgically with

repeated dilatations, but ultimately succumbed to sepsis and malnutrition. In the second child, attempted dilatation resulted in esophageal perforation and she was reconstructed using ileocecal segment as a substitute for stomach and lower esophagus, and has done well. The third child was managed surgically by the Hunt Lawrence J pouch as stomach substitute and has also done well.

Address: Department of Paediatric Surgery, Christian Medical College, Vellore, Tamilnadu, India.

PMID: 22121314 CO

Kumar, K., Basker, S., Jeslin, L., Srinivasan, C. and Zedek, E.

Anesthetic management for removal of adrenocortical carcinoma with thrombus in the inferior vena cava extending to the right atrium

Journal of anaesthesiology, clinical pharmacology; 2011, 27 (4): 571-3

Address: Department of Anaesthesia and Critical Care, Christian Medical College and Hospital, Vellore, Tamil Nadu, India.

PMID: 22096307 CO

Kumar, K., Ninan, S., Jeslin, L., Saravanan, P. and Balaji, K.

Ultrasound-guided regional blockade - Is it always safe?
Journal of anaesthesiology, clinical pharmacology; 2011, 27 (3): 428-9

Address: Department of Anaesthesia and Critical Care, Christian Medical College and Hospital, Vellore, India.

PMID: 21897538 CO

Kurien, M., Mathew, G. A., Abraham, S. L. and Irodi, A.

Bilateral, spontaneous cerebrospinal fluid rhinorrhoea: endoscopic, unilateral, trans-septal approach for simultaneous closure
J Laryngol Otol; 2011, 1-4

Background: Bilateral, spontaneous cerebrospinal fluid rhinorrhoea is extremely rare, with only one previous case report (this patient developed contralateral cerebrospinal fluid leakage four years after successful

endoscopic repair). We present the first English-language report of simultaneous, bilateral, spontaneous cerebrospinal fluid rhinorrhoea. **Objective:** To recommend a simple alternative endoscopic technique for simultaneous closure of bilateral, spontaneous cerebrospinal fluid rhinorrhoea. **Case report:** A 47-year-old woman presented with recent onset of bilateral, spontaneous cerebrospinal fluid rhinorrhoea, a recent history suggestive of meningitis, and a past history of pneumococcal meningitis. Bony defects on both sides of the cribriform plate were closed endoscopically in the same anaesthetic session, via a unilateral, trans-septal approach, enabling both leakage sites to be sealed simultaneously. **Conclusion:** In cases of bilateral, spontaneous cerebrospinal fluid rhinorrhoea, unilateral, trans-septal endoscopic repair is a simple and effective technique for simultaneous closure of cerebrospinal fluid leakage.

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PMID: 21810296 CO

Lamba, S., Gupta, A. K., Shetty, R. and Kumar Hr, N.

Letter To The Editor - Arm Restraints
Cleft Palate Craniofac J; 2011, Abstract Arm Restraints.

Address: a Christian Medical College, Department of Plastic Surgery.

PMID: 21801095 CO

Madhuri, V., Balakumar, B., Walter, N. M., Prakash, H., Dutt, V. and Chowdhurie, L.

Function after Total Calcanectomy for Malignant Tumor in a Child: Is Complex Reconstruction Necessary?
The Journal of foot and ankle surgery

Official publication of the American College of Foot and Ankle Surgeons; 2011, Complex reconstruction after calcaneal excision for aggressive or malignant tumors has been advocated. In this report we describe a 7-year-old child who underwent chemotherapy followed by total calcanectomy for a primitive neuroectodermal tumor of the calcaneum. The near-

normal function achieved after the operation leads us to believe that COMplex reCONstruction after calcaneal excision is not warranted in every pediatric case. This report also highlights the benefits of the Cincinnati incision for calcanectomy, and describes the gait abnormalities after the operation. To the best of our knowledge, a description of the gait abnormality observed after calcanectomy for tumor resection in a pediatric patient has not been reported up to now.

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PMID: 22083067CO

Manipadam, M. T., Abraham, R., Kavunkal, A. M., Gibikote, S. and Cherian, V. K.

Aneurysmal cyst of soft tissue of the diaphragm presenting as posterior mediastinal mass

Indian journal of pathology & microbiology; 2011, 54 (3): 616-7

Address: Department of Pathology, Christian Medical COLlege, Vellore, India.

PMID: 21934239CO

Manipadam, M. T., Abraham, R., Sen, S. and Simon, A.

Primary pigmented nodular adrenoCORTical disease

J Indian Assoc Pediatr Surg; 2011, 16 (4): 160-2

Primary pigmented nodular adrenoCORTical disease (PPNAD) is a rare cause of ACTH-independent Cushing's syndrome and has characteristic gross and microSCopic pathologic findings. We report a case of PPNAD in a 15-year-old boy, which was not associated with Carney's COMplex. Bilateral adrenalectomy is the treatment of choice.

Address: Department of Pathology, Christian Medical COLlege, Vellore, Tamil Nadu, India.

PMID: 22121318CO

Mathew, A., Chrispal, A. and David, T.

Acute myocardial injury and rhabdomyolysis caused by multiple bee stings

J Assoc Physicians India; 2011, 59 518-20

Massive envenomation by honey bees is capable of causing multiorgan dysfunction as a result of direct

toxic effect of massive envenomation and seCONDary to systemic anaphylactic reactions. Acute myocardial ischemia due to bee envenomation is a rare event. We report the case of a 65 year old lady who presented with acute myocardial ischemia, severe rhabdomyolysis and angioedema following massive bee envenomation.

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PMID: 21887913CO

Mathews, S. S., Kumar, R. M. and Rupa, V.

Iatrogenic pseudoaneurysm: a rare COMplication of sinonasal surgery

Am J Otolaryngol; 2011, 32 (6): 607-10

OBJECTIVE: We report 2 patients with iatrogenic pseudoaneurysms, which developed following sinus surgery. **METHOD:** Case reports and a review of literature of the management of iatrogenic pseudoaneurysm. **RESULTS:** For one patient who presented with massive epistaxis, the only lifesaving option available was to perform an urgent angiogram followed by selective embolization of the feeding vessel. In the seCOND patient who presented with persistent nasal obstruction and discharge and no epistaxis, a traumatic aneurysm of the internal carotid artery was demonstrated on magnetic resonance imaging scan that was later CONFirmed by angiography; he, however, declined further treatment. **CONCLUSION:** Iatrogenic pseudoaneurysms that develop following a vascular injury, though rare, can cause life-threatening epistaxis or a thromboembolism. In this report, we describe 2 different manifestations of iatrogenic vascular malformations following sinus surgery. The role of angiography and subsequent endovascular therapy in the management of these lesions is emphasized.

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PMID: 21035916CO

Michael, R. C. and Michael, J. S.**Tuberculosis in otorhinolaryngology: clinical presentation and diagnostic challenges****Int J Otolaryngol; 2011, 2011 686894**

Tuberculosis affects all tissues of the body, although some more Commonly than the others. Pulmonary tuberculosis is the most Common type of tuberculosis acCOunting for approximately 80% of the tuberculosis cases. Tuberculosis of the otorhinolaryngeal region is one of the rarer forms of extrapulmonary tuberculosis but still poses a significant clinical and diagnostic challenge. Over three years, only five out of 121 patients suspected to have tuberculosis of the otorhinolaryngeal region (cervical adenitis excluded) had MyCObacterium tuberculosis culture-proven disease. Additional 7 had histology-proven tuberculosis. Only one patient had CONCOMitant sputum-positive pulmonary tuberculosis. We look at the various clinical and laboratory aspects of tuberculosis of the otorhinolaryngeal region that would help to diagnose this unCOMmon but important form of extrapulmonary tuberculosis.

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PMID: 22121369CO

Moses, V., Ramakrishna, B. and Thomas, K.**Azathioprine induced cholestatic hepatitis****Indian J PharmaCOl; 2011, 43 (6): 733-5**

We report a case of cholestatic hepatitis developed one week after exposure to azathioprine. The subsequent prolonged cholestatic phase was followed by full clinical remission. Current knowledge on pathogenesis and epidemiology and the diagnostic challenges presented by this rare COMplication are discussed, followed by reCOMmendations for monitoring and management.

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PMID: 22144788CO

Nair, S. C., Viswabandya, A. and Srivastava, A.**Diagnosis and management of von Willebrand disease: a developing country perspective****Semin Thromb Hemost; 2011, 37 (5): 587-94**

Special challenges exist in the management of patients with von Willebrand disease (VWD) because of limitations in diagnostic facilities and therapeutic options. However, even within these limitations, it is possible to establish comprehensive services for this condition. Our data show that among 202 patients with VWD, 107 were type 3, 62 were type 1, and the others different categories of type 2. Basic tests such as bleeding time and activated partial thromboplastin time with factor (F)VIII coagulant are able to diagnose most of those with severe disease. We have been able to adapt the specific tests such as von Willebrand factor (VWF) ristocetin cofactor and VWF antigen from the tedious batched manual methods to cost-effective automated methods on advanced coagulometers. Discriminatory tests such as VWF collagen binding, VWF:FVIIIIB, ristocetin-induced platelet agglutination (RIPA) are done in batches. Therapeutic options and for the treatment of bleeding include desmopressin, cryoprecipitate, and intermediate purity VWF-containing clotting factor concentrates. Tranexamic acid is also widely used as well as hormonal therapy for menorrhagia. We have also shown that modest doses of intermediate purity FVIII (Koate DVI; Talecris Biotherapeutics, Raleigh, NC, USA) at 35 IU/kg preoperatively and 10 to 20 IU/kg after that are sufficient for surgical hemostasis in these patients.

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PMID: 22102204CO

Narasimhaiah, D. A., Manipadam, M. T., Aswathaman, K. and Krishnamoorthy, S.**Renal cell carcinoma associated with granulomatous reaction****Saudi J Kidney Dis Transpl; 2011, 22 (6): 1211-4**

Granulomatous inflammation is a distinctive pattern of chronic inflammatory reaction characterized by accumulation of epithelioid histiocytes and multinucleate giant cells. The cause of granulomas can be infectious or non-infectious. Granulomas have

been described within the stroma of malignancies like carcinomas of the breast and COlon, seminoma and Hodgkin's lymphoma, where they represent T-cell-mediated reaction of the tumor stroma to antigens expressed by the tumor. Granulomatous reaction in association with renal cell carcinoma (RCC) is unCOMmon, with only few published reports in the literature. We describe three cases of CONventional (clear cell) RCC associated with epithelioid granulomas within the tumor parenchyma.

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PMID: 22089785 CO

Natarajan, M. S., Prabhu, K., Chacko, G., Rajaratnam, S. and Chacko, A. G.

Endoscopic transsphenoidal excision of a GH-PRL-secreting pituitary macroadenoma in a patient with McCune-Albright syndrome

Br J Neurosurg; 2011

Abstract We describe an endoscopic transsphenoidal excision of a GH-PRL-secreting pituitary adenoma and remodeling of frontotemporal fibrous dysplasia in a patient with McCune-Albright syndrome. Sphenoid dysplasia rendered transsphenoidal surgery challenging, but a study of the radiological anatomy and good surgical planning made this feasible. Medical therapy and radiation was required for persistent acromegaly after surgery.

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PMID: 21767126 CO

Nirmal, T. J. and Kekre, N. S.

Renal osteodystrophy seCONdary to CONgenital bilateral ureteropelvic junction obstruction

Urol J; 2011, 8 (4): 1232

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PMID: 22090060 CO

Patkar, N., Nair, S., Alex, A. A., Parihar, M., Manipadam, M. T., Arora, N., Ahmed, R., Abraham, A., George, B., Viswabandya, A., Srivastava, V., Srivastava, A. and Mathews, V.

CliniCopathological features of hepatosplenic T cell lymphoma: a single centre experience from India
Leuk Lymphoma; 2011,

In a first series from India, we report 9 cases of hepatosplenic T cell lymphoma (HSTCL) seen in 23 months acCOunting for 4.2% of all mature T-non-Hodgkin lymphomas (NHLs) in our institution. All patients presented with organomegaly, cytopenias and had evidence of bone marrow involvement. The tumor cells had a blastic (55%) morphology with predominantly intrasinusoidal (33.3%) or intrasinusoidal with an additional interstitial COMponent (33.3%). On flow cytometry, the classical phenotype (CD3+, CD7+, CD4-, CD8-, CD5-, CD56+/-) was seen only in 4 patients. Unusual variations included CD45 (overexpression), CD7 (dim expression), CD3 (overexpression, heterogeneous and dim), CD2 (overexpression), CD5 (heterogeneous), CD8 (heterogeneous or dim or overexpression) and aberrant expression of CD19. Fluorescent in situ hybridisation (FISH) and karyotyping was abnormal in 5 out of 7 patients evaluated. All of the 5 cases showed abnormalities in chromosome 7 (ring chromosome or isochromosome 7q). Five patients died of disease and related COMplications in a span of 1-3 months after diagnosis whereas 4 were alive at their last follow up out of which 2 had documented a relapse. In our series, HSTCL was characterized by typical clinical and variable immunophenotypic features and a dismal clinical outCOME.

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PMID: 21916832 CO

Peterson, R. R., Agarwal, I. and Sinha, R.

End-stage renal disease with deafness in an adolescent child

Indian J Nephrol; 2011, 21 (4): 293-4

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PMID: 22022095 **CO**

Pugazhendhi, S., Sahu, M. K., Subramanian, V., Pulimood, A. and Ramakrishna, B. S.

Environmental factors associated with Crohn's disease in India

Indian J Gastroenterol; 2011,

BACKGROUND: The frequency of diagnosis of Crohn's disease (CD) in India is increasing. This case-CONTROL study was designed to detect associations of environmental and dietary factors with the diagnosis of CD. **METHODS:** without gastrointestinal disease, environmental hygiene exposures in childhood and in the past one year, and dietary preferences were reCORded using a questionnaire. Univariate and multivariate analyses were done. univariate analysis, CD showed positive association with urban residence (at birth and current), availability of protected drinking water (childhood and current), availability of piped water in the house (childhood and current), and strict vegetarian dietary habit, and negative association with regular fish CONsumption and presence of cattle in the house COMpound. Multivariate analysis showed that regular fish CONsumption (OR 0.52, 95% CI 0.33-0.80, $p = 0.003$), and presence of cattle in the house COMpound currently (OR 0.57, 95% CI 0.35-0.92, $p = 0.023$) were significant protective associations, whereas use of safe drinking water was positively associated (OR 1.59, 95% CI 1.02-2.47, $p = 0.042$) with the disease. **CONCLUSION:** exposures, which indicate that diet and hygiene may influence the development of this disease.

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PMID: 22161539 **CO**

Rajendran, P., Ajjampur, S. S., Chidambaram, D., Kattula, D., Rajan, D. P., Ward, H. and Kang, G.

Investigation of potential zoonotic transmission of cryptosporidiosis in southern India

Am J Trop Med Hyg; 2011, 85 (4): 657-9

Abstract. The COMmon species and subgenotypes causing cryptosporidiosis were studied in 394 children and 627 animals with diarrhea in Vellore in southern India. Although no zoonotic strains were identified in 13 infected children, 1 of 12 infected animals had *C. hominis*, indicating the potential for cross-species transmission. This study also reports *C. xiaoi* for the first time in India.

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PMID: 21976568 **CO**

Ram, T. S., Badkul, R., Maraboyina, S. and Wang, F.

A COMparative study to evaluate the efficacy of on board imaging with COne beam CT using target registration in patients with lung tumors undergoing stereotactic body radiation therapy and COMparison with ExacTrac using skeletal registration on Novalis Tx

Journal of cancer research and therapeutics; 2011, 7 (3): 304-7

Background: Stereotactic body radiation therapy is an advanced technique, which delivers ablative doses to lung lesions. Target verification is done either by orthogonal x-rays or COne beam CT. This study was undertaken to COMpare these two verification methods. **Aim:** To evaluate the efficacy of ExacTrac and COne Beam COMputed Tomography (CBCT) for target repositioning while delivering Stereotactic Body Radiation Therapy (SBRT) for lung lesions and derive the population-based margin. **Materials and Methods:** All patients who had undergone SBRT for lung lesions from February to September 2009 were involved. Patients were immobilized using the BodyFix double vacuum immobilization system, indexed to the COMputed tomography (CT) simulator and treatment machine. Four-dimensional (3-D) scan was done to generate internal target volume (ITV) and a free

breathing CT scan for planning was done on the BrainLab iPlan 4.1 software. During treatment, patient's position was verified using ExacTrac and CBCT. The resulting vertical, lateral, and longitudinal shifts were noted. The random and systematic error were calculated and the margin recipe derived using the Van Herk formula. Results: Sixteen patients had undergone SBRT for lung tumors from February to September 2009. Data from eight patients who had undergone 34 sessions of SBRT was analyzed. The systematic error for lateral, longitudinal, and vertical shifts for ExacTrac and CBCT were 3.68, 4.27, 3.5 mm and 0.53, 0.38, 0.70 mm, respectively. The random error were 1.10, 1.51, 1.96 mm and 0.32, 0.81, 0.59 mm. The lateral, longitudinal and vertical Van Herk margin recipe for ExacTrac were 9.98, 11.72, 10.18 mm, respectively, and for CBCT was 2.17, 1.53, 1.55 mm. CONclusions: The systematic and random errors for CBCT were significantly lesser as COMPARED to the errors with ExacTrac.

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PMID: 22044812 CO

Ramakrishna, B. S., Binder, H. J., Subramanian, V., Pugazhendhi, S. and Kabeerdoss, J.

Exposure to hookworms in patients with Crohn's disease: authors' reply

Aliment Pharmacol Ther; 2011, 34 (10): 1250

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PMID: 22004257 CO

Ramakrishna, B., Patel, K. and Vyas, F.

Synchronous Hepatocellular Carcinoma and Gastric Carcinoma-A Case Report with Review of the Literature
J Gastrointest Cancer; 2011,

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PMID: 21948271 CO

Ramakrishna, B., Shah, G. J. and Vyas, F.

Intraductal Hepatocellular Carcinoma without Parenchymal Tumor: A Case Report
J Gastrointest Cancer; 2011,

INTRODUCTION: Obstructive jaundice due to hepatocellular carcinoma is rare. We present a case of hepatocellular carcinoma presenting as an intraductal tumor, which was clinically and radiologically diagnosed as cholangiocarcinoma. **CLINICAL PRESENTATION:** A 59-year-old male was admitted with recurrent episodes of jaundice. He was found to have a tumor in the right hepatic duct extending into intrahepatic ducts, which was clinically and radiologically diagnosed as cholangiocarcinoma. **RESULTS:** The patient underwent right hepatectomy with excision of the bile duct and left hepaticojejunostomy. Histological examination revealed an intraductal moderately differentiated hepatocellular carcinoma. The rest of the liver parenchyma showed features secondary to biliary obstruction but no tumor. **CONCLUSION:** A case of hepatocellular carcinoma presenting as an intraductal tumor with obstructive jaundice and no evidence of parenchymal tumor is presented.

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PMID: 21814761 CO

Ramakrishna, K., Peter, J. V., Karthik, G., Abraham, A. M., Surekha, V., Karthik, R. and Chacko, B.

Influenza A (H1N1) 2009 pandemic: was there a difference in the two waves in patients requiring admission to the intensive-care unit?

Clin Microbiol Infect; 2011, 17 (9): 1355-8

Clin Microbiol Infect 2011; 17: 1355-1358 **ABSTRACT:** Influenza virus is prone to mutations that may alter the intensity of subsequent waves of infection. In this study, we evaluated whether outcomes were different in the two waves of the influenza A (H1N1) 2009 pandemic in patients admitted to the intensive-care unit. Age, gender, lag-time to presentation and APACHE-II scores were similar in both waves. Although ventilatory requirements were similar (36/37 vs. 36/39), non-significant reductions in the durations (days) of

ventilation (10.3 +/- 8.0 vs. 7.8 +/- 9.4, p 0.11) and hospitalization (14.9 +/- 10.5 vs. 12.3 +/- 14.1, p 0.20) were observed in the seCOnd wave. The clinical profile and outCOmes were not significantly different between the two waves among severely ill patients.

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PMID: 21679373CO

Raychaudhury, T. and Valsamma, D. P.

Giant porokeratosis

Indian J Dermatol Venereol Leprol; 2011, 77 (5): 601-2

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PMID: 21860162CO

Sahu, M. K., Chacko, A., Dutta, A. K. and Prakash, J. A.

Microbial profile and antibiotic sensitivity pattern in acute bacterial cholangitis

Indian J Gastroenterol; 2011, 30 (5): 204-8

INTRODUCTION: The changing antimicrobial sensitivity pattern of causative organisms poses a therapeutic challenge in treating patients with acute cholangitis. We therefore evaluated the microbial profile and sensitivity pattern to antibiotics in patients with acute bacterial cholangitis. **METHODS:** Data of patients above 18 years of age with acute bacterial cholangitis seen between January 2004 and March 2007 were retrospectively analyzed. The study was Continued prospectively from April 2007 to December 2008. Data on clinical features, etiological and microbial profile and therapy, and patient outCOmes were analyzed. In the prospective group, the antibiotic susceptibility patterns of organisms grown on bile and blood culture were also obtained. **RESULTS:** One hundred and eighty-five patients with acute cholangitis were studied. Choledocholithiasis (62.7%) and malignancy (29.2%) were the main predisposing factors. Bile culture was positive in 88 of 95 patients, and blood culture was positive in 47 of 178 (26.4%) patients. Bile cultures were predominantly polymicrobial (69.5%) in COntラスト to blood cultures

(2.2%). E. COLi was the predominant isolate in blood and bile. No growth was seen on anaerobic bile or blood cultures. The prospective group showed high resistance of E. COLi to third generation cephalosporins and ciprofloxacin. **CONCLUSIONS:** Changing antimicrobial sensitivity patterns requires a revision of empiric antibiotic therapy policy in cholangitis.

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PMID: 22006165CO

Salphale, P., Danda, D., Chandrashekar, L., Peter, D., Jayaseeli, N. and George, R.

The study of Cutaneous Lupus Erythematosus Disease Area and Severity Index in Indian patients with systemic lupus erythematosus

Lupus; 2011, 20 (14): 1510-7

The Cutaneous Lupus Erythematosus Disease Area and Severity Index (CLASI) is a newly described tool used to assess the activity of and damage caused by cutaneous lupus erythematosus (CLE). There is a paucity of data on CLASI from the Indian subCOntinent. We sought to determine the applicability of CLASI in specific lesions of CLE in patients with systemic lupus erythematosus (SLE) attending a tertiary care hospital in India. In this prospective, cross-sectional study, 93 patients of SLE with cutaneous lesions were recruited. CLASI activity and damage sCOres of lupus erythematosus (LE)-specific skin lesions were done in 75 patients with SLE. The mean CLASI activity sCOre was 15.4 +/- 9.4 (range 0-39) and the mean damage sCOre was 6.87 +/- 7.75 (range 0-30). Higher mean CLASI activity sCOres were seen in patients with a COmbination of acute, subacute and chronic CLE and in those with widespread lesions. Patients with longstanding disease and long duration of skin lesions had higher damage sCOres. This study shows that CLASI is an effective tool to assess cutaneous activity of LE-specific lesions, and the damage caused by them, in Indian patients.

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PMID: 21997966CO

Samson, S. K., Poonoose, S. I. and Rajshekhar, V.

Intracranial tuberculoma associated with subdural hematoma

J Neurosci Rural Pract; 2011, 2 (2): 202-3

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PMID: 21897695 **CO**

Samuel, S., Boopalan, P. R., Alexander, M., Ismavel, R., Varghese, V. D. and Mathai, T.

Tuberculosis of and around the ankle

The Journal of foot and ankle surgery : official publication of the American College of Foot and Ankle Surgeons; 2011, 50 (4): 466-72

Osteoarticular tuberculosis of the ankle joint is rare, and diagnostic delays are common with this condition. The aim of our report is to highlight the varied clinical and radiologic presentation of this entity. We present a retrospective review of 16 patients with tuberculosis in and around the ankle joint who were surgically treated during a 6-year period. The incidence of ankle joint involvement in extraspinal osteoarticular tuberculosis was 15.7% in our unit. The most common presentation in our series was chronic septic arthritis, followed by periarticular osseous lytic lesion. Tuberculous synovitis, tenosynovitis, and retrocalcaneal bursitis were also seen. Osteopenia, the hallmark of osteoarticular tuberculosis, might not be seen in all forms of tuberculosis affecting this joint. Chemotherapy remains the mainstay of treatment. Adjuvant surgery is often required to establish the diagnosis and in the treatment of patients with deformity and widespread destruction of articular cartilage owing to delayed presentation.

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PMID: 21612948 **CO**

Sandhya, P. and Danda, D.

Letter to the Editor: Multiple fractures in Sjogrens syndrome

J Musculoskelet Neuronal Interact; 2011, 11 (4): 324

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PMID: 22130142 **CO**

Sandhya, P., Danda, D., Mathew, J. and Gattani, A.

OutCome of patients with seronegative spondyloarthritis Continuing sulphasalazine and methotrexate after a short COurse of infliximab therapy—experience from a tertiary care teaching hospital in South India Clin Rheumatol; 2011, 30 (7): 997-1001

The objective of the study is to evaluate the outcome of patients with seronegative spondyloarthritis continuing on sulphasalazine (SSZ) and methotrexate (MTX) after a short course of infliximab. Patients with seronegative spondyloarthritis on MTX and SSZ were given short course of infliximab therapy at 0, 2, 6 and 14 weeks. Outcome of these patients while continuing on MTX and SSZ was assessed. Clinical features, Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Bath Ankylosing Spondylitis Functional Index (BASFI), C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR) were noted at baseline (pre-infliximab), 1 month, 3 months and last follow-up after last dose of infliximab infusion. Twenty-four patients were included in this study. The mean duration of follow-up was 9.1 months. Statistically significant reduction in tender and swollen joint count was noted at all the three visits as compared to baseline. Fall in ESR and CRP was statistically significant at 1 and 3 months, but not at last follow-up. Mean reduction in BASDAI at 1 month, 3 month and last follow-up after last infliximab dose were 3.907 (95% CI 2.98-4.83; $p < 0.001$), 4.53 (95% CI 3.56-5.49; $p < 0.001$) and 2.48 (95% CI 1.12-3.84; $p = 0.002$), respectively. Mean reduction in BASFI at 1 month, 3 months and last follow-up after last infliximab dose were 4.13 (95% CI 3.23-5.04; $p < 0.001$), 4.34 (95% CI 2.8-5.88; $p < 0.001$) and 2.38 (95% CI 0.86-3.90; $p = 0.005$), respectively. Continuing SSZ and MTX after short course of infliximab results in

sustained improvement in our patients with seronegative spondyloarthritis in India.

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PMID: 21409397CO

Shah, K., George, R., Balla, E. S., Oommen, S. P., Padankatti, C. S., Srivastava, V. M. and Danda, S.

An Indian Boy with Additional Features in Pallister-Killian Syndrome

Indian J Pediatr; 2011, Pallister-Killian syndrome (PKS; OMIM: # 601803) is a rare sporadic genetic disorder characterized by pigmentary skin changes, distinctive dysmorphology, developmental delay, and mosaicism for tetrasomy of chromosome 12p. The authors report a case of PKS in a 2-y-old boy. He had pigmentary skin changes, characteristic facial features, developmental delay and hearing loss. He had sacral and post-auricular pits in addition, which has not yet been reported. A diagnosis of PKS was suspected on the basis of the patient's clinical features. Skin fibroblast culture was done which showed mosaic tetrasomy of isochromosome 12p Consistent with Pallister-Killian syndrome. This case highlights the importance of dysmorphology as a diagnostic tool for recognition and accurate genetic Counseling in genetic syndromes.

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PMID: 22012142CO

Singh, B. E., Thomas, M. and George, R.

Pediatric Onset Keratosis Lichenoides Chronica: A Case Report

Pediatr Dermatol; 2011, Keratosis lichenoides chronica (KLC) is an acquired keratinization disorder that is rare in childhood. We report a case of sporadic pediatric-onset KLC with seborrheic dermatitis-like lesions on the forehead, papules in a retiform pattern in the axillae and mons pubis, and eye and oral mucosal involvement, with additional features of premature canities and a transient photosensitive eruption.

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PMID: 22011337CO

Sudeep, K., Chacko, A., Thomas, N., Selvakumar, R., George, B., Paul, T. V. and Seshadri, M. S.

Predictors of Osteodystrophy In Subjects With Chronic Non-ALCOholic Pancreatitis With or Without Diabetes Endocr Pract; 2011, 1-25

Objective: To study bone mineral Content (BMC), bone mineral density (BMD), Vitamin D status and bone mineral parameters in subjects with chronic nonalcoholic pancreatitis and to determine the relationship between pancreatic dysfunction and these parameters. **Methods:** Thirty-one eligible non-alcoholic males with proven chronic pancreatitis and 35 Control males were studied. Biochemical parameters, parameters of malabsorption and BMD of the lumbar spine were evaluated. **Results:** In subjects with chronic pancreatitis the mean body mass index (BMI) was 18.46 (+/- 2.86) kg/m² and the median 25(OH) Vitamin D was 19.6(5.0 - 52.0) ng/ml. A higher proportion of patients had a T score of < -2.5 (9/31, 29%) than Controls (3/35, 9%). BMI Correlated significantly with BMD (r=0.426; P= 0.017). There was an inverse Correlation between stool fat and BMC (r = minus 0.47; P=0.03) in patients with chronic pancreatitis. There was no significant Correlation between serum Vitamin D or biochemical parameters and BMD. Patients with steatorrhea had a significantly lowered BMC than subjects without steatorrhea and this difference Could not be accounted for by differences in BMI, presence of diabetes or hypovitaminosis D. **Conclusions:** Pancreatic osteodystrophy is a novel entity comprising osteopenia, osteoporosis and osteomalacia in patients with chronic pancreatitis. The inverse Correlation between stool fat and BMC in subjects with chronic pancreatitis, the strong positive Correlation between BMI and BMC and the lack of difference in BMC between vitamin D sufficient and deficient subjects, suggests that long-standing malabsorption with attendant chronic undernutrition is the major factor Contributing to the changes in BMC.

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PMID: 21742614 CO

Sundararaj, G. D., Amritanand, R., Venkatesh, K. and Arockiaraj, J.

The use of titanium mesh cages in the reCONstruction of anterior COLUMN defects in active spinal infections: can we rest the crest?

Asian Spine J; 2011, 5 (3): 155-61

STUDY DESIGN: Retrospective clinical series. **PURPOSE:** To assess whether titanium cages are an effective alternative to triCORTical iliac crest bone graft for anterior COLUMN reCONstruction in patients with active pyogenic and tuberculous spondylodiscitis. **OVERVIEW OF LITERATURE:** The use of metal cages for anterior COLUMN reCONstruction in patients with active spinal infections, though described, is not without CONtroversy. **METHODS:** Seventy patients with either tuberculous or pyogenic vertebral osteomyelitis underwent a single staged anterior debridement, reCONstruction of the anterior COLUMN with titanium mesh cage and adjuvant posterior instrumentation. The lumbar spine was the predominant level of involvement. Medical CO-morbidities were seen in 18 (25.7%) patients. A significant neurological deficit was seen in 32 (45.7%) patients. At follow up patients were assessed for healing of disease, bony fusion, and clinical outCOME was assessed using Macnab's criteria. **RESULTS:** Final follow up was done on 64 (91.4%) patients at a mean average of 25 months (range, 12 to 110 months). Pathologic organisms COuld be identified in 42 (60%) patients. Forty two (60%) patients had histopathological findings CONSistent with tuberculosis. Thirty of 32 (93.7%) patients showed neurological reCOvery. The surgical wound healed uneventfully in 67 (95.7%) patients. Bony fusion was seen in 60 (93.7%) patients. At final follow up healing of infection was seen in all patients. As per Macnab's criteria 61 (95.3%) patients reported a good to excellent outCOME.

CONCLUSIONS: In spite of the theoretical risks, titanium cages are a suitable alternative to autologous triCORTical iliac crest bone graft in patients with active spinal infections.

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PMID: 21892387 CO

Thakar, S. and Rajshekhar, V.

Evaluation of pain as a preference-based health status measure in patients with cervical spondylotic myelopathy undergoing central CORpectomy
Acta Neurochir (Wien); 2011,

BACKGROUND: Assessment of pain in patients with cervical spondylotic myelopathy (CSM) before and after deCOMpressive surgery has not been adequately addressed in the literature. The purpose of this study was to ascertain the intensity of various pain sCOres in patients with cervical spondylotic myelopathy (CSM) before and after surgery, and to assess their CORrelation with other outCOME measures. prospective study, 51 patients with CSM were assessed preoperatively and 1 year or more after uninstrumented central CORpectomy (CC) using the Visual Analogue Scale (VAS), Nurick grade, patient perceived outCOME sCORE (PPOS) and SF-36. **RESULTS:** and arm pain (51%) than low axial pain (23.5%), with the mean VAS sCOres being 53.6 +/- 27.4, 55.5 +/- 27.4 and 34.0 +/- 20.3, respectively. Following surgery, the mean neck, arm and low axial pain sCOres decreased significantly ($p < 0.05$) to 14.4 +/- 22.6, 5.2 +/- 11.8 and 16.0 +/- 26.1, respectively. Improvement in pain sCOres demonstrated poor agreement ($\kappa < 0.2$) with PPOS, Nurick grade reCOvery rate (NGRR), and the physical COMponent summary (PCS) and mental COMponent summary (MCS) of the SF-36. Pain sCOres did not influence quality of life as assessed by SF-36. Pain was reported by about half the patients with CSM, but was not severe in any of them. Following deCOMpressive surgery, the intensity of all these pain COMponents decreased significantly. Low axial pain, a reflection of CSM-related spasticity perceived in the lumbosacral region, became prominent in many patients after surgery.

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PMID: 22109692 CO

Thomas, T. H., Devakumar, D., Balukrishna, S., Godson, H. F. and Ravindran, B. P.

Validation of image registration and fusion of MV CBCT and planning CT for radiotherapy treatment planning
Australas Phys Eng Sci Med; 2011,

In areas like adaptive therapy, multi-phase radiotherapy, and single fraction palliative treatment or in the treatment of patients with metal implants where megavoltage(MV) CT COuld be COnsidered as a treatment planning modality, the reduced COntast in the MV CT images COuld lead to limited accuracy in localization of the structures. This would affect the precision of the treatment. In this study, as an extension our previous work on bespoke MV COne beam CT (MV CBCT), we propose to register the MV CBCT with kilovoltage (kV) CT for treatment planning. The MV CBCT images registered with kV CT would be effective for treatment planning as it would acCOunt for the inadequate soft tissue information in the MV CBCT and would allow COmparison of changes in patient dimensions and assist in localization of the structures. The intensity based registration algorithm of the BrainSCAN therapy planning software was used for image registration of the MV CBCT and kV CT images. The accuracy of the registration was validated using qualitative and quantitative measures. The effect of image quality on the level of agreement between the COntouring done on both the MV CBCT and kV CT was assessed by COmparing the volumes of six structures delineated. To assess the level of agreement between the plans after the registration, two independent plans were generated on the MV CBCT and the planning CT using the posterior fossa of the skull as the target. The dose volume histograms and COnformity indices of the plans were COmpared. The results of this study show that treatment planning with MV CBCT images would be effective, using additional anatomical structure information derived from registering the MV CBCT image with a standard kVCT.

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PMID: 21830106CO

Turel, M. K., Asha, H. S., Rajaratnam, S., Chacko, G. and Chacko, A. G.

Thyroid stimulating hormone microadenoma as a rare cause of thyrotoxiCOsis amenable to surgical cure *J Clin Neurosci*; 2011,

Hyperthyroidism due to a thyroid stimulating hormone (TSH) pituitary adenoma is rare. We report a 29-year-old woman with thyrotoxiCOsis and elevated serum 3,5,3',5'-tetraiodothyronine and TSH levels that resolved after a transsphenoidal excision of the detected TSH pituitary adenoma. The diagnosis and management options in such patients are reviewed.

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PMID: 22153796CO

Varghese, G. M., Eapen, P. and Abraham, S.

Ecthyma gangrenosum of a single limb

Indian journal of critical care medicine : peer-reviewed, official publication of Indian Society of Critical Care Medicine; 2011, 15 (3): 188-9

Ecthyma gangrenosum is a skin manifestation of systemic sepsis COmmonly caused by *Pseudomonas aeruginosa* in patients with neutropenia or underlying immune deficiency. Although the usual outCOme is poor, early reCOgnition and appropriate systemic antibiotic treatment can lead to successful outCOme. We report a case of a previously healthy lady with no apparent immune deficiency or neutropenia who had ecthyma gangrenosum of left lower limb in which the arterial line was placed.

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PMID: 22013315CO

Varughese, S., Mathews, M. S. and Tamilarasi, V.

Successful renal transplantation following treatment of *Aspergillus terreus* peritonitis in a COntinuous ambulatory peritoneal dialysis patient
Indian J Nephrol; 2011, 21 (3): 208-11

Peritoneal dialysis (PD) related peritonitis caused by fungi is a potentially life-threatening COmplication.

It diminishes prospects of COntinuing PD. We report a patient with *Aspergillus terreus* peritonitis treated successfully with catheter removal and antifungal therapy and subsequently had a live-related renal transplantation. There was no recurrence of the infection in 3 years of follow-up.

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PMID: 21886985 CO

Vasan, S. K., Pittard, A. E., Abraham, J., Samuel, P., Seshadri, M. S. and Thomas, N.

Cause-Specific Mortality in Diabetes: Retrospective hospital based data from South India
J Diabetes; 2011,

Objectives: India lacks COmprehensive mortality data in subjects with diabetes. We COnducted a retrospective case-CONTROL study COmparing the causes of death in diabetic and non-diabetic inpatients in a tertiary care hospital in 2007. **Methods:** 315 diabetic deaths were COmpared with 307 randomly selected COntrols. Medical chart review established the primary cause of death, demographics, and clinical data. Data was summarized using descriptive statistical methods and COmparative analyses were performed. **Results:** Among 79,067 inpatient admissions during 2007, diabetes of any type was reCOrded for 6515 (8.2%). There were 2017 inpatient deaths registered, 315 (15.6%) in diabetic patients and 1702 (84.4%) in non-diabetic patients, COrresponding to mortality rates of 48.3/1000 admissions for diabetic patients versus 23.4/1000 admissions for non-diabetic patients. The mean duration of hospitalization prior to death in diabetic versus non-diabetic patients was 6.4 days versus 7.7 days ($p=0.015$). Causes of death in diabetic patients were vascular disease (38.4%), infection (34.3%), renal failure (8.9%) and malignancy (8.9%); diabetic patients had significantly higher odds of death from vascular disease (OR 4.05, 95% CI 2.67-6.16, $P<0.0001$), renal causes (OR 7.39, 95%CI 2.53-29.27, $P<0.001$) and infection (OR 1.61, 95% CI 1.12-2.32, $P<0.0001$). COmparing cases and COntrols after stratifying by age (< 56 years and ≥ 56 years), the greater odds of vascular death among diabetics remained statistically significant in both age categories. **COncclusions:** We report vascular disease as the leading cause of death among diabetic hospital in-patients in one tertiary care

center in India, in COntast to previous hospital-based studies from India. The significant findings of the study: The mortality rates are higher in diabetics, when COmpared to the non-diabetics. The current study demonstrates that vascular disease is the leading cause of death among diabetic in-patients in India, COntrary to previous hospital-based data that reported infectious disease as the primary cause of death among diabetics This study adds: This study adds to knowledge COncerning the changing trends in mortality patterns among inpatients which is an important characteristic of the growing epidemic of diabetes in India. The observed deviation from recent trends, wherein increased deaths due to vascular causes over infectious disease, is important information for health policy makers in order to plan early intervention for vascular disease prevention.

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PMID: 22018101 CO

Vedantam, A., Jonathan, A. and Rajshekhar, V.

Association of magnetic resonance imaging signal changes and outCOme prediction after surgery for cervical spondylotic myelopathy

J Neurosurg Spine; 2011, Object Few studies have evaluated the prognostic significance of different types of T2-weighted MR imaging changes in patients with cervical spondylotic myelopathy (CSM). The object of this study was to determine whether the type of increased signal intensity (ISI) was an independent predictor of outCOme following central COrpectomy in patients with CSM or ossification of the posterior longitudinal ligament (OPLL). **Methods** Magnetic resonance images obtained in 197 patients who had undergone central COrpectomy for CSM or OPLL were assessed for ISI within the COrd on sagittal T2-weighted images and hypointensity on T1-weighted images. The T2-weighted changes were categorized as no change (Type 0), fuzzy (Type 1), or sharp (Type 2) based on the ISI characteristics. OutCOmes were assessed as a change in Nurick grade of 1 grade or more from

preoperatively to postoperatively, and cure as a follow-up Nurick grade of 0 or 1. Multilevel regression analysis was performed to identify predictors of change in Nurick grade ≥ 1 and cure. Results There were 30 patients (15.2%) with Type 0, 104 patients (52.8%) with Type 1, and 63 patients (32%) with Type 2 ISI on MR images. Age, duration of symptoms, and preoperative Nurick grade were similar among the groups. A preoperative Nurick grade of 4 or 5 (OR 0.23, $p < 0.001$) and presence of Type 2 ISI on T2-weighted images (OR 0.48, $p = 0.04$) negatively influenced the probability of cure after surgery. Hypointensity on T1-weighted images was only seen in patients who had Type 2 ISI changes. Among the 63 patients with Type 2 ISI, the presence of T1-weighted hypointensity (16 patients) was found to negatively impact cure (OR 0.1, $p = 0.04$). CONCLUSIONS Increased signal intensity on preoperative T2-weighted MR images was seen in more than 80% of the cases. However, only Type 2 ISI on T2-weighted images had a prognostic significance of being associated with a decreased likelihood of cure in patients with CSM or OPLL. Hypointensity on T1-weighted images predicted a lower probability of cure among patients with Type 2 ISI on T2-weighted images.

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PMID: 21923236 CO

Veeraraghavan, B.

Newer beta-lactam and beta-lactamase inhibitor Combinations available in India: Consensus and Controversies

Indian J Med Microbiol; 2011, 29 (3): 315-6

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PMID: 21860121 CO

Veeraraghavan, B. and Kurien, T.

Penicillin resistant Streptococcus pneumoniae in India: Effects of new clinical laboratory standards institute breakpoint and implications

Indian J Med Microbiol; 2011, 29 (3): 317-8

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PMID: 21860122 CO

Victor Peter, J., Patole, S., Fleming, J. J., Selvakumar, R. and Graham, P. L.

Agreement between paired blood gas values in samples transported either by a pneumatic system or by human Courier

Clinical chemistry and laboratory medicine : CCLM / FESCC; 2011, 49 (8): 1303-9

BACKGROUND: Rapid accurate assessment of metabolic derangements is crucial in the critically ill. We evaluated if arterial blood gas (ABG) samples transported through a pneumatic tube system (PTS) agreed with values transported by a human Courier. **METHODS:** In this prospective study of 50-paired ABG samples, the Couriered reference ABG was Compared with those transported by PTS. Agreement was summarised by the mean difference with 95% limits of agreement (LOA) and Lin's Concordance Correlation (pc). **RESULTS:** The mean (\pm SD) time from sampling to analysis was 35.7 \pm 23.2 (Courier) and 38.6 \pm 22.1 (PTS) minutes. Agreement was good between Courier and PTS for pH, PaCO₂, bicarbonate, oxygen saturation and PaO₂ values (pc>0.97). Although the mean difference in PaO₂ values between PTS and Courier was small (-0.9 mm Hg) and the agreement was good, individual differences were clinically significant (95% LOA -40.8 to 39.0). For PaO₂ <160 mm Hg, analysis of PTS samples yielded erroneously high PaO₂ values and vice versa for PaO₂>160 mm Hg Compared to manual Courier. This suggested exaggerated oxygen movement between the blood sample and air in the PTS. **CONCLUSIONS:** In this study, analysis of samples transported through the PTS resulted in clinically unacceptable PaO₂ values. Delay in transport and analysis of ABG samples should be avoided and samples transported manually if they cannot be assessed on-site.

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PMID: 21619479 CO

Gnanamony, M. and Abraham, P.**Performance Characteristics and COmparison of Abbott and artus Real-Time Systems for Hepatitis B Virus DNA Quantification****J Clin Microbiol; 2011, 49 (9): 3215-21**

Virological monitoring of hepatitis B virus (HBV) DNA is critical to the management of HBV infection. With several HBV DNA quantification assays available, it is important to use the most efficient testing system for virological monitoring. In this study, we evaluated the performance characteristics and COmparability of three HBV DNA quantification systems: Abbott HBV real-time PCR (Abbott PCR), artus HBV real-time PCR with QIAamp DNA blood kit purification (artus-DB), and artus HBV real-time PCR with the QIAamp DSP virus kit purification (artus-DSP). The lower limits of detection of these systems were established against the WHO international standards for HBV DNA and were found to be 1.43, 82, and 9 IU/ml, respectively. The intra-assay and interassay COefficients of variation of plasma samples (1 to 6 log(10) IU/ml) ranged between 0.05 to 8.34% and 0.16 to 3.48% for the Abbott PCR, 1.53 to 26.85% and 0.50 to 12.89% for artus-DB, and 0.29 to 7.42% and 0.94 to 3.01% for artus-DSP, respectively. Ninety HBV clinical samples were used for COmparison of assays, and paired quantitative results showed strong COrrrelation by linear regression analysis (artus-DB with Abbott PCR, $r = 0.95$; Abbott PCR with artus-DSP, $r = 0.97$; and artus-DSP with artus-DB, $r = 0.94$). Bland-Altman analysis showed a good level of agreement for Abbott PCR and artus-DSP, with a mean difference of 0.10 log(10) IU/ml and limits of agreement of -0.91 to 1.11 log(10) IU/ml. No genotype-specific bias was seen in all three systems for HBV genotypes A, C, and D, which are predominant in this region. This finding illustrates that the Abbott real-time HBV and artus-DSP systems show more COmparable performance than the artus-DB system, meeting the current guidelines for assays to be used in the management of hepatitis B.

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PMID: 21795507**DIA****Ismail, A. M., Sivakumar, J., Anantharam, R., Dayalan, S., Samuel, P., Fletcher, G. J., Gnanamony, M. and Abraham, P.****Performance Characteristics and COmparison of Abbott and artus Real-Time Systems for Hepatitis B Virus DNA Quantification****J Clin Microbiol; 2011, 49 (9): 3215-21**

Virological monitoring of hepatitis B virus (HBV) DNA is critical to the management of HBV infection. With several HBV DNA quantification assays available, it is important to use the most efficient testing system for virological monitoring. In this study, we evaluated the performance characteristics and COmparability of three HBV DNA quantification systems: Abbott HBV real-time PCR (Abbott PCR), artus HBV real-time PCR with QIAamp DNA blood kit purification (artus-DB), and artus HBV real-time PCR with the QIAamp DSP virus kit purification (artus-DSP). The lower limits of detection of these systems were established against the WHO international standards for HBV DNA and were found to be 1.43, 82, and 9 IU/ml, respectively. The intra-assay and interassay COefficients of variation of plasma samples (1 to 6 log(10) IU/ml) ranged between 0.05 to 8.34% and 0.16 to 3.48% for the Abbott PCR, 1.53 to 26.85% and 0.50 to 12.89% for artus-DB, and 0.29 to 7.42% and 0.94 to 3.01% for artus-DSP, respectively. Ninety HBV clinical samples were used for COmparison of assays, and paired quantitative results showed strong COrrrelation by linear regression analysis (artus-DB with Abbott PCR, $r = 0.95$; Abbott PCR with artus-DSP, $r = 0.97$; and artus-DSP with artus-DB, $r = 0.94$). Bland-Altman analysis showed a good level of agreement for Abbott PCR and artus-DSP, with a mean difference of 0.10 log(10) IU/ml and limits of agreement of -0.91 to 1.11 log(10) IU/ml. No genotype-specific bias was seen in all three systems for HBV genotypes A, C, and D, which are predominant in this region. This finding illustrates that the Abbott real-time HBV and artus-DSP systems show more COmparable performance than the artus-DB system, meeting the current guidelines for assays to be used in the management of hepatitis B.

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PMID: 21795507**DIA**

Pai, R., Nehru, G. A., Samuel, P., Paul, M. J., Thomas, N., Premkumar, J. A., Hephzibah, J., Shanthly, N., Oommen, R., Nair, A., Seshadri, M. S. and Rajaratnam, S.

Mutational analysis of RET proto-oncogene among patients with medullary thyroid carcinoma and 'at risk' carriers from India

Clin Endocrinol (Oxf); 2011, 75 (4): 571-2

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PMID: 21521337 **DIA**

Panicker, J. B., Chacko, G., Patil, A. K., Alexander, M. and Muliyl, J.

Immunohistochemical differentiation of inflammatory myopathies

Neurol India; 2011, 59 (4): 513-20

Background: Idiopathic inflammatory myopathies are a heterogeneous group of acquired muscle disorders with considerable overlap in the histological features, making histological diagnosis difficult at times. **Aims:** To determine the immunohistochemical profile of clinically suspected cases of inflammatory myopathies, using monoclonal antibodies to HLA-1 and membrane attack complex (MAC), and to correlate the clinical, serological, and electromyographic profile and the histopathological picture, with the immunohistochemical profile. **Settings and Design:** This was a retrospective study analyzing the clinical and histopathological features in muscle of clinically suspected cases of inflammatory myopathy and correlating it to their HLA-1 and MAC immunostaining profiles. **Material and Methods:** The study subjects included 33 cases with suspected inflammatory myopathy and 59 with non-inflammatory muscle disease, as controls. Clinical data, electromyographic findings, serological profile, and details of therapy were obtained from patient records. **Statistical Analysis:** Student 'T' test, Pearson's Chi square test, and Kappa statistics were used appropriately. **Results:** Although HLA-1 and MAC immunostaining did not help to differentiate the

individual subtypes of inflammatory myopathy, when either HLA-1 or MAC was positive, inflammatory myopathy could be ruled in with 86.5% certainty and when both HLA-1 and MAC were negative, it could be ruled out with 95% certainty. **Conclusions:** A combination of clinical presentation, serological profile, electromyographic and histopathological features, together with the immunoprofile for HLA-1 and MAC, contribute toward making a diagnosis of inflammatory myopathy.

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PMID: 21891925 **DIA**

Parihar, M., Ashok Kumar, J., Sitaram, U., Balasubramanian, P., Abraham, A., Viswabandya, A., George, B., Mathews, V., Srivastava, A. and Srivastava, V. M.

Cytogenetic analysis of acute myeloid leukemia with t(8;21) from a tertiary care center in India with correlation between clinicopathologic characteristics and molecular analysis
Leuk Lymphoma; 2011,

Abstract The t(8;21)(q22;q22) is the most common translocation in acute myeloid leukemia (AML). We describe the clinicopathologic and cytogenetic profile of 117 patients with t(8;21) AML. There were 76 males and 88 adults. The median age was 26 years. Most patients (80%) had AML M2. Dysplasia was present in 68% of patients and eosinophilia in 18%. Eight patients had fewer than 20% blasts. Additional chromosomal aberrations were seen in 103 patients (88%) with loss of a sex chromosome (LSC) in 78 patients (66%) and deletion 9q in 21 (18%). The other recurrent abnormalities were trisomies 4, 8 and 15, monosomy 17 and deletion 7q (less than 5% each). Three- or four-way variant t(8;21) were seen in 6% of patients and 3% had tetraploidy. Aberrant expression of CD19 was seen in 54% of patients. FLT3 mutations were seen in 7.5% of patients (3/40) and c-KIT mutations in 6.6% (2/30). None had NPM1 or JAK2 V617F mutations. One patient had a granulocytic sarcoma. Complete remission was achieved in 96% of the 26 newly diagnosed patients after first induction. The median follow-up was 25 months (range 4-68). The overall survival was 69% at 31 months.

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PMID: 21745004 DIA

Rajkumar, A. P., Mohan, T. S. and Tharyan, P.

Lessons from the 2004 Asian tsunami: Epidemiological and nosological debates in the diagnosis of post-traumatic stress disorder in non-Western post-disaster Communities
Int J Soc Psychiatry; 2011,

BACKGROUND: The nosological validity of post-traumatic stress disorder (PTSD) remains controversial in non-Western Communities. After natural disasters, epidemiological studies often overlook these conceptual debates and assess post-traumatic stress symptoms (PTSS) by short screening instruments. Such PTSS estimates are reported as inflated prevalence rates of PTSD in post-disaster settings. **AIMS:** To discuss the prevalence and determinants of PTSS within the context of pertinent epidemiological and nosological debates. **METHODS:** We assessed PTSS and grief symptoms of 643 survivors from five Indian villages struck by the Asian tsunami using the Impact of Events Scale - Revised and Complicated Grief Assessment Scale. We adopted a case control design and employed complex sample multiple logistic regression statistics to study the determinants of PTSS. **RESULTS:** The prevalence of PTSS was 15.1% (95% CI 12.3%-17.9%). PTSS was significantly associated with traumatic grief, female gender, physical injury, death of children and financial losses, but not with functional disability ($p = .91$). Elevating them to a psychiatric construct of PTSD is questionable, when functional impairment and avoidance behaviours were absent. Grief reactions, socio-economic burden, and poor support systems contribute towards PTSS. We highlight the important issues regarding the nosological validity and epidemiology of PTSD in non-Western Communities.

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PMID: 21997766 DIA

Sachithanandham, J., Solomon, K., Prasannakumar, S., Nithyandham, G. and Kannangai, R.

Evaluation of a dry format reagent for CD4+ and CD8+ T-cell enumeration with FACSCount and Guava polymerase chain reaction

Indian J Med Microbiol; 2011, 29 (4): 401-5

Purpose: In all CD4+/CD8+ T-cell estimation systems, the reagents used are liquid in nature and have to be transported and stored at 2 degrees -8 degrees C. This causes problems in countries where the ambient temperature is high for most parts of the year or where the laboratories are at remote places. **Materials and Methods:** We evaluated a dry format of CD4/CD8 reagents from ReaMetrix (Bangalore, India) against the existing liquid reagents from Becton Dickinson (San Jose, CA, USA) and Guava PCA system (Guava Technologies, Hayward, CA, USA). Blood samples collected during March 2009 through May 2009 from 102 HIV-infected individuals and 31 normal healthy individuals in a tertiary care centre in India (south) were tested by Guava EasyCD4 System (PCA) and FACSCount using the respective reagents and the corresponding ReaMetrix reagents. **Results:** Overall, the correlation (r) of the new Rea T Count and FACSCount reagents for the CD4+ T-cell estimation was 0.98, while with ReaPan 3 4 G reagent in the Guava PCA system with the Guava reagent was 0.97. The mean bias for CD4+ T-cell measurements between Rea T Count and BD reagent was -6 cells/ml, while the same with ReaPan 3 4 G reagent in the Guava PCA system was 78 cells/ml. The mean bias for the Rea T Count and the ReaPan 3 4 G reagent tested in the FACSCount and Guava PCA system was 17 cells. **Conclusions:** The dry reagents were found to be reliable and cheaper compared to the existing liquid reagents. This allows the transportation of reagents in the absence of cold chain and will facilitate a more user-friendly CD4+ T-cell testing system.

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PMID: 22120802 DIA

Peedicayil, J. and Kumar, A.

Time for Clinical Trials of Epigenetic Drugs in Psychiatric Disorders?

Br J Clin Pharmacol; 2011,

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PMID: 22023150 **MISC**

Prithishkumar, I. J.

Ludwig Edinger (1855-1918): Founder of Modern Neuroanatomy

Clinical anatomy; 2011,

Ludwig Edinger, a German neurologist is Considered as one of the founders of modern neuroanatomy. He was Conferred the degree of Doctor of Medicine at the University of Strassburg. His observation of small living organisms under a microscope at an early age led him to study medicine. Edinger had many discoveries to his credit. He was the first to describe the ventral and dorsal spinocerebellar tracts, to distinguish between paleo-encephalon and neo-encephalon, and between paleo-cerebellum and neo-cerebellum. He COined the terms "gnosis" and "praxis," which were later adopted in psychological descriptions of agnosia and apraxia. He identified the Edinger-Westphal nucleus in 1885 and was the first to describe the syndrome of thalamic pain. Edinger worked with renowned clinicians and published a large number of papers. He founded the Neurological Institute at the Goethe University in Frankfurt, which is the oldest neurological Institute in Germany. Edinger was a rare COmbination of a profound scientist, a brilliant teacher, a fine artist, and a noted hypnotist. While at the height of his career, he underwent a surgery and died a few hours later. It was his last will that his brain should be dissected in his own institute. It showed extraordinarily well-developed occipital lobes as well as other unusual features. Clin. Anat., 2011. (c) 2011 Wiley-Liss, Inc.

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PMID: 21800368 **MISC**