Background and aim Timely and accurate diagnosis of children with osteomyelitis is crucial, diagnostic imaging play a major role in determine the presence of acute osteomyelitis, treatment planning and follow up. Physicians encouraged to take the advantage of all available modalities as early intervention would prevent all possible adverse outcome of late diagnosis . The aim of this study is to explore the different imaging modalities in verifying the diagnosis of paediatrics acute osteomyelitis.
Methods All cases diagnosed with Acute Osteomyelitis between January 2000 and December 2013 were retrospectively reviewed at main tertiary children hospital. Our approach included a detailed description of radiological features of paediatric patients with acute haematogenous osteomyelitis.
Results 79 cases of acute osteomyelitis were diagnosed. 68 (86.1%) of children had X-Ray within first two weeks. (51.5%) reported as normal compared to (48.5%) abnormal (Periosteal reaction- Ostelytic lesions- soft tissue swelling). Ultrasound done in 34 (43%) of children, (70.6%) reported normal vs. (29.4%) abnormal (effusion). MRI study done in 73 (92.4%) and revealed osteomyelitis in 100% of imaging.16 patients (20.3%) had Bone Scan,(12.5%) reported normal compared to (87.5%) abnormal. (100%) of children with positive bone scan had similar osteomyelitis on MRI.
Conclusion Our study confirmed that MRI is the gold standard of imaging modality which combines high sensitivity with specificity to confirm osteomyelitis in children despite having normal X-ray, Ultrasound and Bone scan. Simple X-ray might be useful to diagnose osteomyelitis if MRI is difficult to perform or if the cost plays a major role in the patient care.

PO-0241 BILATERAL BASAL GANGLIA INFARCTION IN PNEUMOCOCCAL MENINGOENCEPHALITIS IN A CHILD

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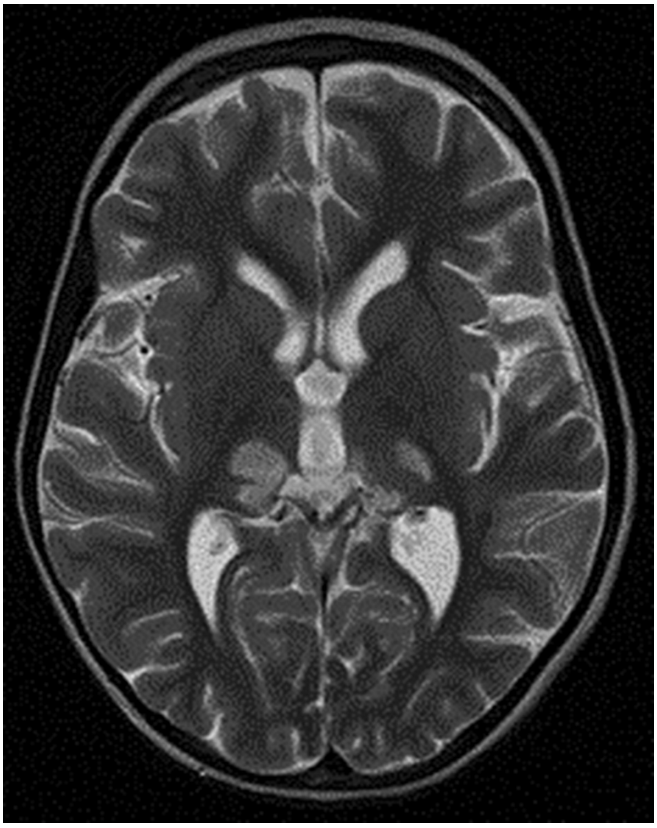
Background and aims Basal ganglia infarction is considered a complication of chronic refractory meningitis. In acute infection the basal ganglia are usually spared. Here we report an exceptional case of bilateral infarction of the basal ganglia in a child with acute *S. pneumoniae* meningoencephalitis.
Methods A 4 year old girl with a short history of fever and left sided otalgia presented with drowsiness in a referral hospital. Cerebral spinal fluid (CSF) examination showed pleocytosis (900 leucocytes/mm^3)and immediately corticosteroids, ceftriaxone and acyclovir were started. Because of a rapid decline inconsciousness she was transferred to our tertiairy PICU centre.
Results Ad admission the girl had become unresponsive and was intubated. Her pupils were mid wide and non-reacting to light. Neurologic examination showed a bipyramidal syndrome with hypertonicity of the lower extremities, brisk deep tendon reflexes and bilateral positive Babinski's. *S.pneumoniae* was cultured from CSF and blood. An MRI 4 days after admission showed bilateral sharply demarcated areas of high-signal intensity in the thalamus indicating infarction (Figure 1). In addition osteomyelitis of the tip of the petrous pyramid was observed. Her consciousness gradually improved with bilateral reactive pupils and spontaneous limb movements. Brainstem evoked response audiometry (BERA) of the left ear was negative. Gross motor deficits and impaired eye movements persisted.
Conclusion Acute pneumococcal meningoencephalitis can cause bilateral basal ganglia infarction in a child.



Abstract PO-0241 Figure 1 Magnetic resonance imaging (MRI) of the brain showing bilateral thalamic infarction

PO-0242 PREVALENCE OF CONGENITAL TOXOPLASMOSIS IN NEWBORNS IN 2 EDUCATIONAL HOSPITALS IN TEHRAN IRAN

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Background and objective Frequency and clinical manifestations of congenital toxoplasmosis in Iran is not determined, object of study was to determine the Frequency of positive serologic neonates for Toxoplasma from birth and follow up of them.
Methods In a cohort prospective study (2011–2012), Cord blood sample obtained from 270 neonates, toxoplasma serology tests (IgG, IgM) done, cases with positive toxo-IgM treated and followed
Finding Positive IgM and IgG determined 1.5%, 44.1% respectively. The most common manifestation was Eye (50%) and brain (50%).
Conclusion Early treatment of infected neonates and wide variation of toxoplasma infection in country is so important. Adding the toxoplasma serologic tests to neonatal screening test is needed and recommended.

PO-0243 PROCALCITONIN USE IN DIAGNOSIS OF PAEDIATRIC MENINGITIS

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Background Rapid diagnosis and early treatment of bacterial meningitis in children is so important.

Goal of study: Comparison the amount of procalcitonin, in CSF of children with bacterial and non bacterila meningitis.

Methods A cross sectional study conducted in Rasoul Akram and Bahrami hospital in Tehran during 2 years (2011–2013) upon 57 children with suspected meningitis selected Convenience. CSF samples obtained, and routine laboratory examinations (cell count, protein, suger, smear, culture) had done. 0/5–3 cc of CSF was collected and stored at- until assayed. Amount of Procalcitonin (ELISA Ray biotech kit) detected in CSF. A receiver-operating – characteristic curve (ROC) was constructed to illustrate various cut-offs of Procalcitonin levels in differentiating between 2 groups of meningitis.

Results 57 children with menigitis were between 1 months-13 years; mean age 26.5: ± 2.98 months, were enrolled in this study. Mean age of 30 cases with bacterial meningitis was 2.5 years, and in 27 cases with aseptic menigitis was 1.6 years. For differentiation of bacterila meningitis; A PCT level in CSF >=0.235 ng/mL had a sensitivity of 96.4% and a specificity of 80%.

We evaluated whether procalcitonin (PCT) might aid diagnosing serious bacterial infections in a general paediatric ICU population. 201 patients accounted for 332 PCT samples.

Conclusion The presence of PCT in CSF can potentially assist clinicians in faster diagnosis and appropriate treatment in bacterial meningitis. These data suggest PCT can assist in identifying patients without bacterial meningitis and limit antimicrobial use.

PO-0244 KILLER-CELL IMMUNOGLOBULIN-LIKE RECEPTOR (KIR) GENOTYPES IN INFANTS WITH SEVERE RESPIRATORY SYNCYTIAL VIRUS (RSV) INFECTION

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Background and aims RSV is the main pathogen associated to hospitalisation for respiratory infections in infants. Prematurity, congenital heart disease and chronic lung disease are known risk factors for severe RSV infection. However, most infants that require hospitalisation do not have known risk factors. The identification of new markers of disease susceptibility is important in order to develop novel preventive measures. Natural killer cells are an essential component of the innate immune system and constitute one of the first lines of defense against viral infections. We analysed the KIR genotype in a group of infants with RSV infection requiring hospitalisation to assess whether this trait influences the risk of severe infection.

Methods Thirty-five infants without underlying conditions who required hospitalisation for RSV infection were included in this analysis. Oral swabs were used to collect samples for DNA extraction and the KIR genotype was determined by detection of the presence or absence of each of the KIR genes. Genotype frequencies were compared to a group of 300 healthy donors from the same hospital. In addition, characteristics of infants with AA and Bx genotypes were compared.

Results KIR AA/Bx genotype frequencies in infants with RSV infection (34.3% and 65.7%) were similar to those of the comparison group (34% and 66%). There were no significant differences in age, intensive care unit admissions, hospitalisation duration, or condition on discharge between infants with AA and Bx genotypes.

Conclusions Our results suggest that the KIR genotype does not influence the risk of developing severe RSV infection.

PO-0245 EPIDEMIOLOGICAL AND CLINICAL CHARACTERISTICS OF PANDEMIC INFLUENZA A INFECTION AMONG THE CHILDREN ADMITTED TO SULEYMAN DEMIREL UNIVERSITY

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Objective Our study evaluates the epidemiological and demographics of the children who were admitted to Süleyman Demirel University, Medical Faculty, Paediatrics Department with the pre-diagnosis of pandemic influenza.

Methods and Materials Demographic characteristics, clinical findings, laboratory tests results and radiological researchs of 64 patients (n = 64), who were admitted to Süleyman Demirel University, Medical Faculty Paediatric Department with the pre-diagnosis of pandemic influenza were analysed and evaluated.

Results Average age of the patients, that were admitted and observed with pre-diagnosis of pandemical influenza, was 32.4 months (1–188 months) and 34% (n = 22) of the cases were female. H1N1v diagnosis was confirmed in 14% (n = 9) of the patients with pre-diagnosis of pandemiz influenza. Most common complaints during submission were severe cough (85.9%), fever (68.8%) and weakness (57.8%). Among the the patients who were H1N1v positive, 55% (n = 5) of them, had preexisting diseases. Five patients needed intensive care during the observation and treatment. Two (22.2%) of them did not survive.

Conclusion Clinical findings of pandemical influenza and seasonal influenza are quite similar in children. Pre-existing diseases increase the rates of morbidity and mortality.

PO-0246 PROTECTIVE EFFECTS OF CAPPARIS OVATA AGAINST 6-MERCAPTOPURINE HEPATOTOXICITY IN RATS

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Objective 6-Mercaptopurine (6-MP) is an oral purin analogue which inhibits the purine synthesis via being converted to ribonucleotide. 6-MP is being widely used in cancer chemotherapy and immunosuppressive therapy. The major side effects which limit its clinical practice are hepatotoxicity and bone marrow suppression. In this study, the protective effect of *Capparis ovata* (CAP) which is an antioxidant plant, against the hepatotoxicity induced by 6-MP is investigated.

Methods Thirty-eight paediatric rats were seperated into four groups. We administered saline solution to the control group (C) (n:8), 6-Mercaptopurine to the second group (6-MP) (n:10), *Capparis ovata* to the third group (CAP) (n:10) and 6-Mercaptopurine plus *Capparis ovata* to the last group (6-MP+CAP) (n:10) for 14 days, respectively. On the fifteenth day, we measured complete blood count and ALT, AST for hepatotoxicity.