Background and Aim Injury due to foreign body (FB) aspiration and/or ingestion is a common and serious pediatric emergency. FB injury (FBI) most commonly occurs in children less than six years, and the incidence of FBI has increased in recent years. The aim of the present study was to evaluate and compare the characteristics of FBI due to ingestion and aspiration.

Methods Data from who were hospitalized for FB ingestion and/or aspiration and underwent rigid bronchoscopy and esophagoscopy from 2008–2011 were retrospectively evaluated. FB in the upper aerodigestive tract (ADT) was evaluated with respect to the characteristics of patients, clinical presentation, management strategy, the outcome, and features of FB.

Results A total of 192 patients admitted for FB ingestion or aspiration in the pediatric surgery department were evaluated. The mean age was 40.97±35.73 months. The majority of patients were fewer than four years of age. FB were mainly located in the upper esophagus for ingested FB 60.8 %, while for aspiration 45% of FB were in the main right bronchus. A total of four patients died. The hospitalization period of patients admitted for FB aspiration was longer than that of patients with FB ingestion. Surgery was performed in four patients. The most commonly ingested FB were coins, while seeds were the most commonly aspirated.

Conclusion Prevention is the key to dealing with FBI. Since the frequency of foreign bodies is higher in under-developed countries, education of parents regarding the dangers and prevention of aspiration and ingestion is important.

1491 TIME OF DAY AS A DETERMINANT OF RADIOGRAPHIC IMAGING IN THE EVALUATION OF PEDIATRIC INTUSSUSCEPTION doi:10.1136/archdischild-2012-302724.1491

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Background Although ultrasound is often the preferred pediatric imaging study, many institutions lack ultrasound access at night for evaluation of intussusceptions in children. The purpose of this study was to characterize patterns of daytime and nighttime use of radiographic imaging for evaluation of intussusceptions.

Methods A retrospective chart review of patients evaluated for intussusceptions from January 2010 to December 2010 was performed to evaluate daytime and nighttime use of radiographic imaging for pediatric patients. Patients were further stratified by time of performance of imaging study into “day” and “night” categories. Differences in clinical characteristics, imaging study, cost, and final diagnosis between daytime and night were analyzed.

Results 86 pediatric consults with suspected intussusceptions were performed. Forty (46.5%) consults were performed during the day. During the day, 38 (95%) patients underwent US and 33 intussusceptions were evaluated. The positive rate of intussusceptions during the day was 95% compared to 75% during the night (p<0.001). In terms of imaging, the day was more commonly evaluated with US (82.5%) compared to the night (65%). The average daytime cost of radiology was $1159 compared to $3328 at night p<0.001.

Conclusions Radiographic imaging at night resulted in higher average radiation exposure and cost. Twenty-four-hour ultrasound availability would decrease radiation exposure and cost of evaluation of children presenting with intussusceptions.

1493 CD 64 AS A DIAGNOSTIC MARKER OF A SERIOUS BACTERIAL INFECTION IN CHILDREN WITH FEVER PRESENTING TO THE EMERGENCY DEPARTMENT doi:10.1136/archdischild-2012-302724.1493

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Background and Aims Expression of neutrophil CD64 is elevated in presence of a bacterial infection. Studies on its diagnostic value show good results in adults, and diverse results in neonates and children admitted to the ICU with sepsis. We aimed to determine the diagnostic value of CD64 in children presenting with fever at the emergency department (ED), to detect a serious bacterial infection (SBI).

Methods We performed a prospective observational study including children aged 1 month–16 years with fever, who presented to the ED of a large teaching hospital in the Netherlands. Patients were excluded in case of relevant comorbidity. CD64 was determined using flowcytometry. SBI was assessed based on a combination of a positive culture, radiology or consensus diagnosis and included disease course follow up by an inpatient visit or telephonic follow up.

Results During 6 months in 2011 we included 208 children of whom CD64 was determined in 137 patients (66%). Preliminary results are based on 137 febrile children, of which 25 (20.4%) with a SBI. The area under the curve of the receiver operator curve to assess SBI was 0.65 (95% CI 0.53–0.77).

Conclusion In a sample of febrile children at the ED, we assessed moderate diagnostic value of CD64 as marker of a SBI. Our further analysis on complete sample (estimated n=280) will include diagnostic performance of CD64 for specific bacterial and viral diagnoses.
1494
NEUROFEEDBACK AS A TREATMENT OF TICS IN CHILDREN

**Object:** Tics are involuntary, sudden, rapid, recurrent, stereotyped motor movements or phonic productions that involve discrete muscle groups. Pharmacological treatment was considered as the most effective approach for tics management for many years. In recent years clinicians attempt to use behavioral methods for this purpose. The aim of our study was to use non pharmacological treatment like EEG biofeedback-neurofeedback (NF) for the treatment of tics.

**Methods** We have examined previously non treated 15 children (9 boys and 6 girls) with simple tics (average age 10 years). All children with complex tics and with other comorbidities were excluded from the study. Tics frequency and severity were assessed by Yale Global Tic Severity Scale (YGTSS). Sensorimotor rhythm (SMR) training was used for NF therapy. 30 session of NF with duration of 30 minutes of each was conducted in every patient. Data were analyzed by SPSS 10.0. ANOVA was used to determine the effect of treatment on YGTSS parameters.

**Results** The ANOVA showed a significant effect of treatment on YGTSS measures (F(1.37)=22.69, MSE=114.735, p<.0001). These evidences suggest that NF significantly improves the severity and frequency of tics.

**Conclusions** Thus effectiveness of SMR training in children with tics is important as the drugs used for the treatment have severe side effects, compliance problems and etc. Cognitive behavioral therapy is effective not only for reducing of tics but also for increasing self esteem and social competence as well.

1495
ASSESSMENT OF ANTIPYRETS AS SEIZURE PREVENTING IN FEBRILE CONVULSION

**Background** Febrile seizure is the most common seizure disorder during childhood. Antipyretics has not been shown to prevent seizure recurrences. (1)

**Objectives** Some researchers previously studied prophylactic efficacy of antipyretics in FC (2–7). Uhari studied synergic effect of antipyretics and BDPS in 1993. our study planned for antipyretics efficacy in FC in IRAN.

**Methods** Our observational, analytical, cross-sectional study was accomplished in over one year from 2009/Nov/23 to 2010/Nov/23. Sample size was 92 patients and sampling method was accidentally. Data collected by interview and analyzed using SPSS statistical software and Kolmogorov-smirnov, Pearson correlation and Regression tests.

**Results** 67 patients (72.8%) had been received antipyretics before seizure occurrences, and 25 patients (27.2%) hadn’t. Antipyretic which had been used composed of one forms of acetaminophen in 62.7%, NSAIDs in 4.5%, and more than one drugs (mixed) in 32.8%.44 patients (50.7%) used antipyretics less than 3 hours, 31 patients (46.3%) in 4–24h and 2 patients (5%) more than 24h before seizure occurrences (FIG-1). (Table-1) shows maximal plasma concentration and plasma half-life of antipyretics. Approximately 50% of patients received antipyretics in appropriate time, but 28% treated after plasma half-life and remainder didn’t received antipyretics before seizure occurrences.

**Conclusion** Preventable effects of antipyretics in FC, is in doubt but the difference between seizure occurrences in treated groups and remainders are not significant.

**FIG-1:** Antipyretic usage time before seizure occurrences.

1496
WHEN SUSPECT PANAYIOTOPOULOS SYNDROME (PS) IN A CHILD WITH CLINICAL DIAGNOSIS OF GASTRIC ESOPHAGUS REFUX DISEASE (GERD)

Panayiopoulos syndrome is “a benign age related focal seizure disorder occurring in early and mid-childhood. It is characterized by seizures, often prolonged, with predominantly autonomic symptoms, and by an EEG that shows shifting and/or multiple foci, often with occipital predominance” (definition of International League Against Epilepsy).

In literature the clinical features of PS was frequently mistaken as non-epileptic conditions such as acute encephalitis, syncope, migraine, cyclic vomiting syndrome, motion sickness, sleep disorder, or gastroenteritis.

In our experience during the last 2 years we have observed 4 children misdiagnosed by clinical history for GERD. Until now PS is underestimated with the consequences of high morbidity and costly mismanagement.

These 4 children were referred to general pediatrician at the age of 2–3 years because they started suffering from gastrointestinal emetic symptoms: nausea, retching, and vomiting. The attacks occurred mainly during sleep without sensory-motor clinical signs of seizure. One child also had monthly episodes of severe headache with clinical characteristics of migraine without aura.

After a treatment with proton pump inhibitors (PPI) and anti-acid without benefits, according to the literature, they were sent to neurologist for suspicion of PS which was confirmed by EEGs occipital features.

Because of the importance of the symptomatology, the children have been treated with Lamotrigine with benefit.

**Conclusions** When a child presents symptoms suggestive of GERD but non responding to specific GERD therapy, there is indication to effect an EEG to investigate a PS.

1497
THE EFFECT OF SURGERY TIME ON PROGNOSIS IN NEWBORNS WITH MENINGOMYEOCELE

**Background and Aim** To investigate the effect of surgery time on prognosis of newborns with meningomyelocele.

**Methods** The records of neonates with meningomyelocele were retrospectively analyzed. Demographic and clinical characteristics as well as information, timing of surgery, and durations of hospital stay and antibiotic therapy were recorded.

**Results** The records of 30 babies were included in the final analysis. Overall, the mean gestational age was 37.1±2.7 weeks, with a mean birth weight of 2967±755 g and head circumference of 35.6±5.8 cm. In terms of localization, 46.6% of the meningomyeloceles were lumbosacral, 40% were lumbar, 10% were thoraco-lumbar and 3.3% were thoracic. The mean size of the meningomyelocele sacs was 4.3±1.2 cm. Newborns underwent surgery on average of 8.2±5.9 days after birth, with an overall mean duration of hospital stay of 30±23.1 days. Patients were divided into two groups based on timing of surgery (group 1, ≤5 days; group 2, >5 days), and comparisons between groups revealed that earlier surgery was associated with significantly shorter durations of hospital stay (p<0.001) and antibiotic therapy (p<0.05).