

## 1494 NEUROFEEDBACK AS A TREATMENT OF TICS IN CHILDREN

doi:10.1136/archdischild-2012-302724.1494

<sup>1</sup>S Bakhtadze, <sup>1</sup>N Geladze, <sup>1</sup>N Khachapuridze, <sup>2</sup>M Nasrashvili. <sup>1</sup>Tbilisi State Medical University; <sup>2</sup>Cito, Medical Centre, Tbilisi, Georgia

**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 period 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 ( $F(1,37)=223.69$ ,  $MSE=114.735$ ,  $p<.0001$ ). 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 ANTIPYRETICS AS SEIZURE PREVENTING IN FEBRILE CONVULSION

doi:10.1136/archdischild-2012-302724.1495

A Mortazavi. *Pediatrics, Social Security Organization/Imam Hossein Hospital, Zanjan, Iran*

**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%. 34 patients (50.7%) used antipyretics less than 3 hours, 31 patients (46.3%) in 4–24h and 2 patients (3%) 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 25% 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 REFLUX DISEASE (GERD)

doi:10.1136/archdischild-2012-302724.1496

C Pacchiarotti, P Parisi, A Ferretti, F Marra, S Bianchi, MP Villa. *Sapienza University of Roma, Roma, Italy*

Panayiotopoulos 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 MENINGOMYELOCELE

doi:10.1136/archdischild-2012-302724.1497

<sup>1</sup>MY Oncel, <sup>1</sup>R Ozdemir, <sup>2</sup>G Kahilogullari, <sup>1</sup>S Yurttutan, <sup>3</sup>O Erdeve, <sup>4</sup>U Dilmen. <sup>1</sup>Neonatology, Zekai Tahir Burak Maternity Teaching Hospital; <sup>2</sup>Neurosurgery; <sup>3</sup>Neonatology, Ankara University, Faculty of Medicine; <sup>4</sup>Pediatrics, Yıldırım Beyazıt University, Faculty of Medicine, Ankara, Turkey

**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  $37.7\pm 2.7$  weeks, with a mean birth weight of  $2967\pm 755$  g and head circumference of  $35.8\pm 3.8$  cm. In terms of localization, 46.6% of the meningomyeloceles were lumbosacral, 40% were lumbar, 10% were thoracolumbar and 3.3% were thoracic. The mean size of the meningomyelocele sacs was  $4.33\pm 1.2$  cm. Newborns underwent surgery on average of  $8.2\pm 5.9$  days after birth, with an overall mean duration of hospital stay of  $30\pm 25.1$  days. Patients were divided into two groups based on timing of surgery (group 1,  $\leq 5$  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 ( $p<0.05$ ).