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 (YGTS). 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 YGTS parameters.

Results The ANOVA showed a significant effect of treatment on YGTS 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 effects. Cognitive behavioral therapy is effective not only for reducing of tics but also for increasing self esteem and social competence as well.

Background Febrile seizure is the most common seizure disorder during childhood. Antipyretic 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 BDs 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%.54 patients (50.7%) used antipyretics less than 3 hours, 51 patients (46.3%) in 4–24h and 2 patients (2%) 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 antipyretic 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.