Objectives: To describe cross-sectional data of anti-TNF trough levels and ADA, combined with decision effects, in children with JIA.

Methods: Patients' records in children with JIA using etanercept, adalimumab or infliximab were retrospectively checked for measurements of anti-TNF trough levels and ADA. Anti-TNF trough concentrations and ADA were measured using an enzyme-linked immunosorbent assay (ELISA) and antigen-binding test. Data on age, sex, JIA subtype, reason for testing and the decision effect of trough level or presence of ADA on the current therapy were collected.

Results: Eighty-one anti-TNF trough levels were measured in 45 children with JIA. A wide variety of anti-TNF trough levels was found. Therapeutic drug concentrations, according to adult ranges in RA and IBD,^{4,5,6} were found in 11 (58%) patients on etanercept (n=19), 2 (14%) on adalimumab (n=14) and 8 (17%) on infliximab (n=48). Four patients on adalimumab and one patient on infliximab showed ADA. All of these five patients had non-detectable drug trough levels. Reasons for testing trough level and/or presence of ADA were loss of response (20%), partial or no response (40%), measurement after dosage increase (2%), remission (17%), uveitis flare (9%) and allergic reaction (11%). Treatment decisions were influenced by trough levels in 70/81 (86.4%) of measurements and in 5/5 (100%) of patients with ADA.

Abstract THU0557 – Figure 1. Dose vs Concentration (etanercept, adalimumab, infliximab)

Conclusions: Measuring anti-TNF trough levels and ADA was a valuable tool in making personalised treatment decisions in JIA. Treatment changes included dose/frequency increase, or stopping and switching treatment in the presence of ADA combined with undetectable drug levels. More data are needed to access optimal therapeutic drug levels in anti-TNF treatment in JIA and to implement this strategy more widely.

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THU0558

INCREASED FREQUENCY OF FEBRILE SEIZURES IN TWO PERIODIC FEVER SYNDROMES: FAMILIAL MEDITERRANEAN FEVER AND PFAPA SYNDROME

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Background: Fever and the fear of febrile seizure risk in parents are a common reason that lead parents to seek care in childhood emergency departments. The most frequently seen periodic fever syndromes in Turkey are periodic fever, aphthous stomatitis, pharyngitis, cervical adenitis (PFAPA) syndrome and familial Mediterranean fever (FMF). There is lack of data regarding the frequency of febrile seizures in periodic fever syndromes.

Objectives: To document the frequency of febrile seizure in patients with Familial Mediterranean Fever and PFAPA syndrome.

Methods: Patients with FMF and PFAPA, who were diagnosed according to Turkish paediatric FMF diagnostic criteria and Marshall criteria, were enrolled to the study. Past medical history of all subjects from postnatal six months to 6 years of age were assessed in terms of febrile seizure. Clinical, demographic and laboratory data of both patient groups were obtained from patient files. The frequency of febrile seizure in both disease groups was compared with the prevalence in healthy children of a previous Turkish study.

Results: A total of 417 FMF and 157 PFAPA subjects were recruited to the study with a female frequency of 49.9% and 42.8%, respectively. The mean age of the FMF and PFAPA patients at study time was 12.4±4.5 years and 5.3±2.1 years, respectively. The mean age at disease onset was 5.1±3.8 (IQR: 2–7) years in FMF group, whereas it was 21±16.5 months (IQR: 10–30) in PFAPA group. The frequency of febrile seizure in FMF and PFAPA syndrome was similar (8.4% versus 8.6%, p>0.05). Among the subjects with febrile seizure, 42.9% (n=15) in FMF group and 30.8% (n=4) in PFAPA group underwent electroencephalography. The EEG result of all subjects were reported to be normal. While 8 subjects with febrile seizure (22.9%) in FMF group required anticonvulsant therapy, 2 patients (15.4%) in PFAPA group used anticonvulsant treatment. Among the PFAPA subjects with febrile seizure (n=13), 53.9% (n=7) underwent tonsillectomy. Thereafter, 85.7% (n=6) of the patients with tonsillectomy never experienced a febrile seizure.

Both the FMF and PFAPA syndrome group were found to have a higher frequency of febrile seizure compared with the healthy subjects of the previous Turkish study (FMF versus healthy children: 8.4% versus 3.2%) (PFAPA syndrome versus healthy children: 8.6% versus 3.2%); and this was statistically significant (p<0.001). However, the frequency of febrile seizure in FMF did not differ from the patients with PFAPA syndrome (8.4% versus 8.6%, p>0.05).

Conclusions: Compared to the healthy children, the frequency of febrile seizure in FMF and PFAPA syndrome was significantly increased. The recurrent fever, which is the main shared manifestation of these two diseases, is possibly a trigger for febrile seizure. This increased frequency of febrile seizure in both periodic syndrome seems to be a result of recurrent fever, other than a neurologic involvement of the FMF itself.

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THU0559

THE PERFORMANCE OF THE NEWLY PROPOSED EULAR/ACR CLASSIFICATION CRITERIA IN JUVENILE-ONSET SYSTEMIC LUPUS ERYTHEMATOSUS-A PRELIMINARY STUDY

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Background: The sensitivity and specificity of the ACR-1997 and SLICC-2012 classification criteria in juvenile-onset systemic lupus erythematosus (SLE) are already studied. In previous reports, the main limitations of the ACR-1997 and