A6

**Development of a disability measurement tool for juvenile inflammatory arthritis: juvenile arthritis functional assessment scale—Indian version**

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**Introduction:** We have devised an Indian version of Juvenile Arthritis Functional Assessment scale (JAFAS) to make the tool contextually relevant for our culture for functional assessment in children with Juvenile inflammatory arthritis (JIA). It has 11 tasks simulating the movements of daily activities, requiring use of joints and muscles affected in JIA.

**Methods:** Standards for this were developed using the scores of 360 normal school children (6–17 years) as controls (age group wise criterion time). We intend to apply this to age-matched JIA children (age 7–16 years) using the Childhood Health Assessment Questionnaire (CHAQ) as the gold standard.

**Results:** Mean scores of JIA children were 15.12 and 11.88 for modified JAFAS and CHAQ, respectively, and they were not different (Mann Whitney test, \( P = 0.278 \)) for assessing functional disability. Scores by JIA children were 25.52\% \( \pm \) 24.30\% higher in modified JAFAS and 16.24\% \( \pm \) 23.22\% higher in CHAQ than those of normal age matched school children with reliability Coefficient Alpha of 0.9156 was found, suggesting internal reliability, consistency, good convergent validity and sensitivity to change for assessing disability.

**Conclusion:** Our simpler 11 task JAFAS is the first disability assessment instrument developed for Indian children with JIA with reliability comparable to 30 task CHAQ.

**Oral Papers**

O1

**Chemokine and chemokine receptor analysis reveals elevated IP-10 levels and increased number of CCR5+ and CXCR3+ CD4 T cells in synovial fluid of patients with JIA**

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**Introduction:** Chemokines and chemokine receptors play a major role in homing of T cells to the site of immune-inflammation. CXCR3 and CCR5 are predominantly expressed on Th1 cells whereas CCR4 is expressed by Th2 cells. The corresponding chemokines for these receptors are IP-10, RANTES and TARC. Data on chemokines and their receptors is limited in JIA.

**Methods:** Peripheral blood was collected from 40 patients with JIA and 18 healthy controls. Paired synovial fluid samples were available from 14 patients with JIA. Chemokines were measured in serum and synovial fluid (SF). Chemokine receptor expression was measured on CD4+ T cells by dual colour flow cytometry.

**Results:** The frequency of peripheral blood CD4+ T cells bearing CCR5, CCR4, and CXCR3 in JIA was similar to that seen in healthy controls. In paired samples the median frequency of CCR5+CD4+ T cells was higher in SF as compared to PB (\( P < 0.005 \)) so was the frequency of CXCR3+ T cells (\( P < 0.05 \)). No difference was seen in the number of CCR4+ T cells in SF as compared to blood. Median serum IP10 levels were higher in patients with JIA as compared to controls. Further, median SF IP-10 levels were higher than the serum levels (\( P < 0.01 \)). Serum levels of RANTES were higher in patients as compared to control (\( P < 0.01 \)). The SF levels were significantly less as compared to serum (\( P < 0.05 \)). No difference was seen in the serum levels of TARC levels between patients and controls; however, the SF (74 pg/ml) levels were less than serum.

**Conclusion:** There is increased homing of CCR5 and CXCR3+CD4 cells to the synovial fluid. Increased SF levels of IP-10 may be responsible for this migration in patients with JIA.

O2

**Clinico-immunological evaluation of secondary Sjögren’s syndrome (SS) in rheumatoid arthritis (RA) patients from Eastern India**

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**Introduction:** This study was conducted to determine the clinico-immunological profile of secondary Sjögren’s syndrome (SS) in RA patients.

**Methods:** Fifty RA patients (M : F = 1 : 4), selected by ACR 1987 criteria, were prospectively evaluated between May 2003 and July 2006, for evidence of secondary SS by European Community Criterion. Patients complaining (22/50) for >3 months of either dry eyes, foreign body sensation,