

Poster presentation

## Diagnostic value and clinical significance of antibodies against a modified citrullinated vimentin (anti-MCV) in patients with early juvenile arthritis

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### Objective

To investigate the diagnostic value and clinical significance of anti-MCV in pts with early JA.

Patients and methods: 85 pts were included in the study (M/F = 36/49) in the age of 1,5–16 years (mean  $8.7 \pm 4.9$  years). Systemic JA – 10 pts (11.8%), poly – 37 (43.5%), oligo-38 (44.7%). Duration of disease was < 6 months. We studied also 54 pts with early RA, 28 pts with undifferentiated arthritis (UA) and 14 healthy children. Anti-MCV was measured in serum by enzyme-linked immunosorbent assay (ELISA) using the cut off value of 25 U/ml. IgM RF and hsCRP-by laser-nephelometry assay on BN-100 analyser.

### Results

Anti-MCV levels were elevated in 23 (27.1%) pts with early JA, in systemic – 2 (20%), poly – 11(29.7%), oligo-10 (26.3%). In pts with RF positive JA – 5 (100%), in RF negative pts- 7(17.1%) ( $p < 0.001$ ). In the control groups: 34/54 (62.9%) adults with early RA ( $p < 0,001$ ), 14/28 (50%) with UA ( $p < 0.05$ ), none of the healthy children showed anti-MCV positivity. The median anti-MCV level in JA was 16.8 U/ml (IR: 11.5–26.4), in RF+ pts (M-834.9; IR 539.3–1149.3 U/ml) was higher than in RF-pts (M-14.5; IR:5.7–22.0 U/ml) ( $p < 0.001$ ). Anti-MCV correlated

with parameters of disease activity (hs CRP, ESR), with RF and anti-CCP positivity. Anti-MCV were not associated with ANA.

### Conclusion

Determination of anti-MCV levels especially together with RF and anti-CCP in pts with early JA can indicate evolution JRA similar RA in adults. Anti-MCV levels correlated with common parameters of inflammation and acute phase response and may be useful to monitor disease activity.