

Poster presentation

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

SO Salugina*¹, ES Fedorov¹, EN Alexandrova¹, AA Novikov¹, MV Cherkasova¹, AA Baranov², YA Valogina², TN Nikolaeva² and NA Zubova²

Address: ¹Institute of Rheumatology RAMS, Moscow, Russian Federation and ²Department of Clinical Pathology, Yaroslavl Medical Academy, Yaroslavl, Russian Federation

* Corresponding author

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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 ± 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.