

Poster presentation

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The role of antibodies to mutated citrullinated vimentin (anti-MCV) in juvenile idiopathic arthritis patients

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Background

Anti-MCV antibodies (Ab) have high sensitivity and prognostic value in patients with RA. We attempt to correlate positive anti-MCV Ab in different subtypes of JIA patients with six core outcome variables.

Patients and methods

Anti-MCV Ab and Anti-CCP Ab were tested by ELISA (Orgentec, Germany) in sera from 57 JIA, and 14 control patients (12 patients with SLE, 1 with MCTD and 1 with synovial cyst). (16 boys, 41 girls), The mean age was 11,2 years (range 2,5–18,0), and mean disease duration was 3, 4 years (SD ± 2.9). Cut off value ≥ 20 U/mL was considered positive.

Results

Positive anti-MCV Ab were detected in only 3/58 (5,2%) JIA patients, and were significantly elevated in two RF positive polyarthritis patients, and slightly elevated in 1/19 (5,3%) patients with enthesitis-related arthritis (ErA). Among all patients, anti-CCP Ab were positive only in one anti-MCV positive polyarticular JIA patient. Anti-MCV and RF positivity correlated statistically ($r = 0,504$, $P = 0,028$) in ErA, while no association between anti-MCV Ab and six core outcome variables was observed in this, or other JIA subtypes. Unexpectedly, anti-MCV was detected in 3/12 (25%) SLE patients (2 low positive and 1 significantly positive), and in 1 patient with MCTD. All of these patients were both RF and anti-CCP negative.

Conclusion

In contrast to RA, anti-MCV antibodies are not specific for JIA. However, within JIA patients, significantly elevated levels are almost exclusively found in two RF positive, polyarticular patients.

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