



P 65 MMP-3, MMP-9, TIMP-1, HA, anti-CCP antibody concentrations in the serum of patients with Lyme arthritis and rheumatoid arthritis

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Lyme arthritis (LA) and rheumatoid arthritis (RA) are difficult to differentiate clinically. The pathogenesis of both diseases is also not fully known. However, the roles of metalloproteinase 3 (MMP-3), metalloproteinase 9 (MMP-9), tissue inhibitor of metalloproteinases 1 (TIMP-1), hyaluronic acid (HA), and anti-CCP antibodies (anti-CCP) in these diseases have already been described.

The aim of this paper was to measure serum concentrations of MMP-3, MMP-9, TIMP-1, HA, and anti-CCP antibodies in patients with LA and RA and then identify any differences that may exist between patients with LA, patients with RA and patients with degenerative joint disease.

There were 60 patients with LA, 12 with RA, and 16 with degenerative joint disease. The control group (CG) comprised 16 probands. Anti-*Borrelia* IgM and IgG antibodies were measured using commercial kits (BIOMEDICA, Austria), confirmed by Western blot tests (Recom Blot *Borrelia* IgM, IgG, Mikrogen Company, Germany). MMP-3, MMP-9, TIMP-1 (ng/ml) serum concentrations were measured with commercial tests of R&D Systems Quantikine (USA). HA serum concentration was measured with commercial kit of Corgenix (USA). Anti-CCP serum concentration (RU/ml) was measured with a commercial kit of the EUROIMMUN Company (Germany).

Anti-CCP, MMP-3, MMP-9, TIMP-1, and HA in the serum of patients with LA did not differ from CG. Anti-CCP, MMP-3, and HA in serum of patients with RA were higher than in controls, but the concentrations of MMP-9 and TIMP-1 did not differ from LA and CG.

(i) The significantly increased MMP-3 and HA serum concentrations in RA in comparison with LA may be useful in the differentiation of these 2 diseases. (ii) Measurement of MMP-3, MMP-9, TIMP-1, and HA serum concentrations is not useful in the diagnosis of LA. (iii) Anti-CCP is a useful marker of RA.