

**P 44 Course and outcome of erythema migrans in patients with rheumatoid arthritis**

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The objective of the present study was to evaluate the course and outcome of erythema migrans (EM) in patients with rheumatoid arthritis (RA).

The source of information was the database on patients with EM, examined at our institution in 1992–2009. Data were acquired prospectively using a structured questionnaire. EM was defined according to modified CDC criteria. During an 18-year period, 37 patients, 33 females and 4 males, aged 59 (33–81) years, with typical EM and preexistent RA, were examined. 24/37 patients had been receiving immunosuppressive therapy. Their pretreatment characteristics and outcome after treatment were compared with 74 previously healthy age-, sex-, and antibiotic treatment-matched persons, diagnosed with EM in the same year.

A comparison revealed analogous findings for tick bite, incubation, duration of EM before diagnosis and its largest diameter, proportion of patients with multiple EM, seropositivity, and *Borrelia* skin and blood culture results. Systemic symptoms were more common in patients with RA (51% versus 22%,  $p=0.0031$ ); the most prominent difference was found for headache (38% versus 7%,  $p=0.0001$ ). In 2/37 patients with RA, but in none of the control group ( $p=0.1091$ ), objective extracutaneous manifestations of Lyme borreliosis (monoarthritis, meningoradiculitis) were found at presentation. Duration of EM after beginning of antibiotic treatment was comparable. Three (8%) patients with RA, but none in the immunocompetent group ( $p=0.0350$ ), were retreated within 3 months due to pronounced subjective symptoms (2 patients) or persistence of EM (one patient). Nonetheless, the clinical course was smooth and comparable in both groups.

A higher proportion of systemic symptoms and the tendency for a more common presence of objective extracutaneous manifestations of Lyme borreliosis before antibiotic treatment as well as a more often need for retreatment indicate that early Lyme borreliosis has a more severe course in patients with RA than in immunocompetent persons. However, the outcome one year after treatment with antibiotics as used for immunocompetent individuals is excellent.