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ABSTRACT NUMBER: 1531

The Changing Face of Septic Arthritis Complicating Rheumatoid Arthritis in the Era of Biotherapies. Retrospective Single-Center Study over 35 Years

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SESSION INFORMATION

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Session Type: ACR Poster Session B

Session Title: Rheumatoid Arthritis - Clinical Aspects Poster II

Session Time: 9:00AM-11:00AM

Background/Purpose: Rheumatoid arthritis (RA) is a risk factor for septic arthritis (SA), and anti-TNF therapy doubles the risk of SA. The purpose of this study was to see whether the frequency and features of SA complicating RA have changed over the last 35 years.

Methods: This retrospective single-center study included the full register of all patients hospitalized at the rheumatology department of Clermont-Ferrand—CHU between 1979 and 2013 for septic arthritis bacteriologically documented by synovial fluid and/or blood culture samples. The periods 1979–2002 (period before biotherapies) and 2003–2013 (last decade in the era of biotherapies) were compared.

Results: Between 1979 and 2013, 64/514 (12.5%) SA presented with a RA—21/153 (13.7%) in the 2003–2013 period and 43/361 (11.9%) in the 1979–2002 period. Over the past decade, median age of SA–RA patients increased (61 vs 68 years; $p < 0.02$) and predominant gender became males (52% vs 40%). The features of the RA remained unchanged: history (18 years (8–29) vs 16 (8–25)), rheumatoid factor (95% vs 87%), and corticosteroids (91% vs 81%) at the same mean dose (10 mg/d). 71% in the period before biotherapies and 63% in the last decade received a DMARD. Over the last decade 24% (vs 0; $p < 0.003$) of patients received a biologic DMARD: etanercept ($n=2$), adalimumab ($n=1$), rituximab ($n=1$), tocilizumab ($n=1$). Proportion of polyarticular infection had decreased (9.5% vs 37%; $p < 0.02$), down to the same level as SA-non-RA cases (8%). Proportion of *S. aureus* infections had stabilized (62% vs 74%) in SA-RA patients but was higher than SA-non-RA (47% and 53%). MRSA infections became more frequent in SA-RA (31% vs 6%; $p < 0.05$) in contrast to SA-non-RA cases (8% vs 16%; ns). Gram-negative bacilli infections have tended to become more frequent (19% vs 5%; $p = 0.08$). Blood cultures less often tested positive (29% vs 47%; ns). Mortality rates has fallen slightly (5% vs 9%; ns), in contrast to SA-non-RA cases (7% vs 6%; ns).

Conclusion: This study brings reassuring findings—in the era of biotherapies, the frequency of septic arthritis complicating rheumatoid arthritis has stabilized, and the most severe septic polyarticular forms are on the decline.

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