

## Biotherapies. Retrospective Single-Center Study over 35 Years

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### SESSION INFORMATION

**Session Date:** Monday, November 9, 2015

**Session Title:** Rheumatoid Arthritis - Clinical Aspects Poster II

**Session Type:** ACR Poster Session B

**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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## Occurrence of Valvular Heart Disease in Rheumatoid Arthritis: A Population Based Study

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**Background/Purpose:** Patients with rheumatoid arthritis (RA) are known to have an increased risk of cardiovascular disease, particularly atherosclerosis and heart failure. However, little is known about the occurrence of valvular heart disease (VHD) in RA. The purpose of our study was to investigate the occurrence of VHD among patients with RA compared to the general population.

**Methods:** A population based inception cohort of residents of a geographically well-defined area with adult onset RA who met 1987 ACR criteria in 1998–2007 and a comparison cohort of age and sex matched non-RA subjects from the same population base were assembled and followed until death, migration or the present. Echocardiograms were reviewed to determine the occurrence of VHD as defined by the 2014 ACC/AHA guidelines. Cumulative incidence of VHD adjusted for the competing risk of death was estimated.

**Results:** The study included 379 patients with RA and 379 non-RA subjects (mean age 55.1 [SD 15.2] years, 69% women in both cohorts). Among these cohort of patients, 117 patients with RA and 89 non-RA subjects had at least 1 echocardiogram performed after incidence/index date. The prevalence of VHD was similar in the RA and non-RA cohorts at RA incidence/index date (2% versus 3%;  $P=0.82$ ). The cumulative incidence ( $\pm$  SE) of any valve disease during follow up was higher among patients with RA compared to non-RA subjects (26%  $\pm$  2.5% versus 16.9%  $\pm$  2.1% at 10 years;  $P=0.013$ ). The