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EFFICACY AND SAFETY OF RITUXIMAB IN PATIENTS WITH RHEUMATOID ARTHRITIS-RELATED BRONCHIECTASIS (RA-BR): RESULTS FROM A MULTICENTRE COHORT

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My abstract has been or will be presented at a scientific meeting during a 12 months period prior to EULAR 2016: Yes

Abstract presented or will be presented at (meeting): BSR 2016

Is the first author applying for a travel bursary and/or an award for undergraduate medical students?: No **Background:** Bronchiectasis (BR) is a significant pulmonary morbidity associated with Rheumatoid Arthritis (RA). Patients with RA-BR are susceptible to infection and this poses a challenge in the treatment of articular disease. Evidence of efficacy and safety of biological therapy is scarce as these patients are often excluded from clinical trials. **Objectives:** To evaluate the efficacy and safety of B cell depletion therapy with rituximab in a large RA-BR cohort of patient drawn equally from two centres.

Methods: We conducted a retrospective observational study of consecutive patients with RA-BR (detected by HRCT prior to rituximab) using identical data collection methodology between centres. Each cycle (Cn) of rituximab consisted of 2x1000mg infusions, repeated on clinical relapse. Disease activity was assessed using DAS-28 at baseline and every 6 months after each cycle and EULAR responses were calculated. Safety assessments included the number and severity of acute exacerbations of lung disease per year, together with five year survival and causes of death.

Results: 61 sero-positive patients were studied (43 female, median age 67 years (range 38-91)), median RA duration 9 years (range 1-23) years and BR duration 6 years (range 1-67). 36/61 (60%) were non-smokers. 20 patients were TNF-IR (8 primary non-response, 5 secondary non-response and 7 had side effects). 67% were on concomitant DMARDs. Total follow up duration was 321 patient-years.

At baseline, median DAS-28 was 5.7 (IQR 4.3-7.6). In C1, 53/61 (87%) achieved moderate-good EULAR response with a median reduction in DAS28 scores of 2.1 (IQR 0-3.4) p=0.007 at 6 months. EULAR responses were maintained at C2 and C3; 91% and 86% respectively. Median duration of response for C1, C2 and C3 were 54, 50 and 52 weeks respectively. In the 12 months prior to RTX, there was a median of 3 (0-7) infective exacerbations per patient. After RTX, 13 patients (21%) had fewer exacerbations compared to baseline; 40 patients (66%) remained stable and 8 patients (13%) had increased exacerbations. Overall, the number of exacerbations rose in the first year to a median of 4 (0-10) but then fell in years 2 and 3 to 2 (0-6) and 1 (0-4) respectively. Rituximab was discontinued in 8 patients (4 were due to increased exacerbations and 4 were due to inefficacy). 6 patients (10%) subsequently required alternative biologics for the treatment of RA. Of the 9 (15%) deaths, 3 (5%) died from respiratory disease.

Conclusions: Rituximab is effective and has an acceptable safety profile in the treatment of RA-BR. A temporary increase in acute exacerbations of lung disease may occur in the first year following rituximab. After subsequent treatment cycles, pulmonary symptoms stabilised or improved in most patients. Rituximab may therefore be a particularly appropriate therapeutic choice for this group of patients.

Disclosure of Interest: None declared