for patient and disease characteristics. According to DAS28 scores, disease activity, the cohort was divided into four groups: remission (Rem), low disease activity (LDA), moderate disease activity (MDA) and high disease activity (HDA). T2T, achieving a DAS28 score lower than 2.6 (Rem) or below 3.2 (LDA), significantly decreased in the MCP joints of TOC patients (−1.0±1.1 mm³), while remaining stable in TNFi treated patients (−0.05±0.9 mm³) (TOC vs. TNFi: p<0.001). Similar effects were observed in the wrist (TOC: −2.9±5.6 mm³; −0.08 ±1.4 mm³) with significant differences between the two groups (p=0.0017). Erosion repair was particularly frequent in RA patients reaching fast remission within the first 3 months of treatment.

Abstract FRI0050 – Figure 1. Erosion repair in the metacarpophalangeal joints of tocilizumab treated RA patients after 52 weeks

Y axis shows the volume of the sentinel erosion at baseline (black circles) and 52 weeks follow-up (red squares), x-axis the patient numbers (n=33)

Conclusions: The REBONE study shows that TOC has higher efficacy than TNFi to repair existing bone erosions in patients with RA. In contrast, the effects of TOC and TNFi on the inflammatory symptoms of RA are comparable. These data suggest that IL-6 is the central factor for the disturbed homeostasis between bone resorption and bone formation in the joints of RA patients.

Disclosure of Interest: None declared


THE RISK OF ASEPTIC ARTHROPLASTY LOOSENING IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Total joint arthroplasty (TJA) of the hip (THA) and knee (TKA) are well-established operations for end stage degenerative or inflammatory joint disease, and have excellent outcomes. In rheumatoid arthritis (RA), it is performed in about 25% of the patients. According to registry data septic complications after TJA are more frequent in RA than in osteoarthritis (OA), which is likely linked to the immunomodulatory therapy that RA patients receive. However, aseptic loosening (APL) is the most common complication and it remains unclear whether RA per se is also a risk factor for non-infectious complications, e.g. by the presence of higher levels of systemic inflammation.

Objectives: To compare the rates of APL between OA and RA patients, and to investigate the influence of disease activity levels on the risk for APL in RA patients.

Methods: We identified all patients who underwent THA and TKA between 2002 and 2015 at our academic centre, and linked them with an existing prospective RA database to identify documented RA patients. Age and sex-matched OA patients were used as controls. Our primary endpoint were radiographic signs of APL as previously established. Radiographs were evaluated by two independent observers blinded to the clinical diagnosis.

To explore the effects of systemic inflammation, we compared the time integrated level of disease activity by the Simplified Disease Activity Index (SDAI) during the year before an x-ray indicated loosening (for those with loosening) with the respective levels over one year before the last available x-ray (for those without loosening). We used nonparametric tests and the chi-square test to compare rates of loosening between RA and OA patients and to compare AUC SDAI between patients with and without APL. Additionally, we calculated a Cox proportional hazard model.

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