Background: A third of all patients prescribed biologic therapy with RA do not take concurrent DMARD therapy contrary to EULAR guidance. Reasons for this include contra indications, poor adherence or intolerance. Little data is available comparing head to head analysis of biologic monotherapy. The ADACTA trial found those taking tocilizumab monotherapy versus adalimumab monotherapy had a significantly greater reduction in DAS 28 score at 24 weeks. Backhaus et at found in biologic naive patients comparing those on tocilizumab monotherapy to anti-TNF monotherapy, at 12 weeks more patients in the tocilizumab group achieved a moderate to good response. We have analysed a cohort of patients with RA across three large rheumatology units in the Northwest. All patients were biologic naive when initiated on biologic monotherapy. We investigated the efficacy of biologic monotherapy in this real life clinical setting

Methods: Patients with RA who were identified who had been initiated on their first biologic drug between November 2012 and April 2017 and their case notes analysed. Any patient with concurrent DMARD prescribing was excluded. We included patients on anti- TNF therapy, tocilizumab, rituximab and abatacept.

Results: 111 patients were identified (65 female) with a median age of 63 yrs. 56% were RA Latex or anti CCP positive. DMARDs were discontinued due to GI side effects in over 1/3 of patients (Table 1). Statistical analysis was performed using Mann Whitney U test and Fisher exact test. Some sub group analysis was not possible due to small sample sizes.

Conclusion: In the Backhaus study, analysis was after 3 months biologic treatment. Like Backhaus, we found the tocilizumab group had a greater reduction in DAS 28 score and remission rates than those on etanercept or all anti-TNF drugs importantly at 6 months. Unlike ADACTA we looked at real life data which confirmed that tocilizumab performed better than anti-TNF in the first line biologic monotherapy position. This study adds to the evidence recognising the key role tocilizumab plays in biologic monotherapy.

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