Dose reduction strategy can substantially reduce high cost of TNF inhibitor therapy in RA

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The results of a study presented today at the European League Against Rheumatism Annual Congress (EULAR 2015) showed that, in rheumatoid arthritis (RA) patients, a good clinical response to maintenance treatment with a tumour necrosis factor inhibitor (TNFi) was maintained even when the dose was reduced by one-third.

Reducing the TNFi dose by two-thirds resulted in more flares (exacerbations of symptoms and signs) but these subsided when the higher dose of TNFi was restarted, and did not adversely affect subsequent progression of any disability. In some cases however, patients maintained a clinical response after stopping the TNFi altogether.

"The optimal management of RA involves achieving the lowest possible disease activity - ideally remission, and then maintaining this level of control," said lead author, Dr. James Galloway, Department of Rheumatology, King's College Hospital NHS Foundation Trust, UK. "Findings from our study have shown that adopting a TNFi dose reduction strategy can still meet this objective, with no compromise on symptom control for the patient and offering a more cost-effective option by substantially reducing the high drug costs associated with TNFi maintenance therapy."

RA is a chronic inflammatory disease characterised by joint inflammation and damage, functional disability and significantly

increased mortality. Early intervention using a conventional synthetic disease-modifying anti-rheumatic drug (DMARD) such as methotrexate is critical in preventing structural joint damage and progressive loss of function. For those patients who either fail to respond, or who develop an inadequate response to these drugs over time, a biologic DMARD is an effective add-on treatment option.2 The first choice of biologic therapy is usually a TNFi2 and currently identical dosing regimens of TNFi are used both to induce and then maintain a clinical response.1

Over the first six months of the study, flares (exacerbations of symptoms and signs) occurred in 14% of patients who stayed on the same TNFi dose, compared to a similar figure of 13% in those patients for whom the dose was reduced by one-third. A two-thirds dose reduction increased the odds of a flare occurring by four times compared with a one-third dose reduction, with flares occurring in 37% of patients. Post-dose reduction flares resolved when the original dose of TNFi was restarted. There were no significant differences in self-reported measures of disability (Health Assessment Questionnaire score) with either dose reduction strategy at six months.

The OPTTIRA study is a 12-month multicentre, randomised controlled trial designed to evaluate if reducing TNFi doses (of either etanercept or adalimumab) caused a loss of response in RA patients who were also receiving a synthetic DMARD. To be eligible, patients had to demonstrate stable low disease activity (DAS28 less than 3.2) for over three months. Patients with serious concomitant illness, or those taking high-dose steroids (more than 10mg prednisolone daily) were excluded.

Of the 47 patients who reduced, then stopped their TNFi after six months, 45% (21/47) succeeded without flaring, and their final mean DAS28 score after stopping treatment was 2.2, demonstrating low disease activity.

Provided by European League Against Rheumatism