

The anti-inflammatory properties of simvastatin can benefit statin-naïve rheumatoid arthritis patients with associated risks for cardiovascular disease

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Background: The anti-inflammatory properties of statins are well documented. The aim of this study was to determine if statins may offer therapeutic benefits in rheumatoid arthritis (RA) patients that are also at risk for cardiovascular disease.

Methods: Patients with moderately active RA, despite being on maximum disease-modifying anti-rheumatic drugs (DMARDs) therapy, and that were at risk for cardiovascular disease, were screened for inclusion. Eligible patients were randomised into two groups. In this open-label, cross-over design patients in group 1 received simvastatin treatment (20 mg/day) for a period of 3 months in addition to their usual DMARDs, after which they stopped simvastatin treatment and were followed up for a further 3 months while on their usual DMARDs only. Those in group 2 were allowed to continue on their usual DMARDs without simvastatin treatment for the first 3 months of the study, after which they received 20 mg/day simvastatin for a period of 3 months in addition to their usual DMARDs.

Results: The addition of 20 mg simvastatin to conventional DMARDs produced significant improvements in all of the evaluated parameters. These include significant improvements in DAS28 score, tender joint count, swollen joint count, CRP levels and ESR, while patients were receiving simvastatin treatment.

Conclusions: The addition of 20 mg simvastatin to conventional DMARDs in statin-naïve RA patients at risk for cardiovascular disease may add benefit, apart from modifying lipid profiles, by modulating immune function and suppressing disease activity.

Keywords: anti-inflammatory, cardiovascular disease, disease-modifying anti-rheumatic drugs (DMARDs), rheumatoid arthritis, statins