

RHEUMATOID ARTHRITIS

Can statin use help prevent RA onset?

Evidence indicating that statins have anti-inflammatory and immunomodulatory effects, apparently manifested by decreased levels of C-reactive protein (CRP), has led to suggestions that these agents might represent an effective treatment approach in patients with rheumatoid arthritis (RA). While conflicting evidence has emerged regarding this particular application, the possibility that statin use might help prevent the onset of RA continues to be investigated. A large retrospective analysis of over 200,000 patients enrolled in an Israeli health maintenance organization suggests that persistent statin use may indeed have a protective effect against RA.

To minimize the effect of healthy user bias, the association between statin persistence and onset of osteoarthritis (OA)—a disease deemed unlikely to be affected by statin use—was also calculated. Persistent statin use was categorized as the proportion of days covered (PDC), defined as the quantity of dispensed statins divided by the interval between the first

purchase of the drug and a diagnosis of RA or OA, death, or the end of the study.

The crude incident density rate of RA among nonpersistent statin users (PDC <20%) was 51% greater than in highly persistent users (PDC ≥80%). After adjustment for confounding variables, highly persistent users had a hazard ratio (HR) for RA of 0.58 (95% CI 0.52–0.65) compared with nonpersistent users. For comparison, the corresponding HR for OA incidence showed a far more modest decrease in risk associated with persistent statin use (HR 0.85, 95% CI 0.81–0.88).

These findings indicate that further prospective, controlled studies are warranted to elucidate this association between statin use and protection against RA onset.

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Original article Chodick, G. *et al.* Persistence with statins and onset of rheumatoid arthritis: a population-based cohort study. *PLoS Med.* 7, e1000336 (2010)