

# Tendon complications, though rare, linked to statins

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Statins, the most effective treatment for lowering cholesterol, are widely used and have been demonstrated to be safe in large clinical trials. Although side effects are usually mild, more severe side effects, especially musculoskeletal complications, have been reported. Tendon impairment has been reported anecdotally but has not been included in large-scale studies. A new study published in the March issue of *Arthritis Care & Research* found that, although rare, tendon complications are linked to the use of statins.

Led by Catherine Noblet, of Rouen University Hospital in Rouen Cedex, France, researchers identified 96 cases of tendon complications from the French Pharmacovigilance database between 1990 and 2005 that were attributed to statins. Tendon conditions included tendonitis and tendon rupture. Patient data retrieved from computer database were as follows: medical history, other medications they were taking (especially those known to increase statin concentrations), information about the onset, pattern and severity of their condition, and the dosage and type of statin they took.

The results showed that of the 4,597 side effects associated with statins, about two percent were attributed to tendon complications. Symptoms usually occurred within 8 months of beginning statin therapy. Most patients had tendonitis, but some also suffered ruptured tendons. The most common tendon affected was the Achilles tendon, with pain, swelling, warmth, and stiffness as the most common symptoms. Seventeen of the patients had symptoms severe enough to warrant

hospitalization. The researchers were able to link the tendon problems to statin use based on the fact that the symptoms appeared after the statins were started, they improved when the statins were stopped and they recurred in all of the patients who restarted the therapy.

The authors note that tendon complications due to statins may be largely unreported; no cases were reported during the large therapeutic trials that included more than 30,000 patients, but this may have been due to controlling for factors that predisposed patients to tendon conditions. In this study, an increasing number of patients with complications was seen with the increasing number of prescriptions between 1990 and 2005. They also note that although the prevalence of tendon problems in connection with statins is low, all types of statins could potentially cause tendon problems, which occurred at the recommended dosages.

“Our study suggests that regular tendinous clinical examination may be required in statin-treated patients, particularly during the first year following statin therapy initiation,” the authors state. They also suggest that it is worth considering interrupting statin therapy before strenuous physical activity such as marathon running.

Although it is not known how statins may produce tendon injury, there are several theories. It may be that blocking cholesterol synthesis reduces the cholesterol content of tendon cell membranes, making them unstable, or that statins either reduce the levels of proteins involved in maintaining tendon cells or destroy vascular smooth muscle cells.

The authors suggest that although statins are effective, physicians should be aware that their side effects may include tendon complications. “We also suggest that patients who are at risk of developing statin-associated tendon manifestations and who require statins be routinely questioned about symptoms consistent with tendon involvement,” they state, adding that postmarketing surveillance appears to be a major tool for early

detection of safety problems with a new drug.

Source: Wiley

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