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Statin use to prevent aromatase inhibitor-induced fracture and cardiovascular complications

Statins may be valuable for treating osteoporosis and have been associated with a reduced fracture risk. For example, Rejnmark et al. recently found statins to be associated with reduced fracture risk [1,2]. In another study, Scranton et al. found a significant reduction in fractures among statin users [3]. Dincer et al. have suggested that statins might reduce fractures in breast cancer patients [4].

Fracture and bone loss are troubling side effects of aromatase inhibitors, which have mostly replaced tamoxifen in breast cancer therapy. Indeed, the nonsteroidal inhibitors letrozole and anastrozole significantly increase fracture rate compared to tamoxifen when administered as monotherapy or given sequentially [5,6]. Enhanced bone loss may be preventable through careful bone mineral density assessment and treatment with bisphosphonates. But bisphosphonates have an untreatable side effect: osteonecrosis of the mandible [7]. A second side effect of aromatase inhibitors is hyperlipidemia and cardiovascular disease [5,6].

Reduction in fracture incidence and reduction of cardiovascular disease associated with aromatase inhibitor therapy might be achieved by combining statin therapy with aromatase inhibitor therapy. Bisphosphonate therapy and its complications could thereby be avoided.

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