Halting bone-building osteoporosis drug use cuts risk for additional atypical femur fracture in half

February 8 2012

There is growing evidence that supports an association between atypical fractures of the femur– a rare break of the thigh bone, typically without trauma – and the use of bisphosphonates, drugs proven to enhance bone density and reduce fracture incidence caused by osteoporosis. While the risk for suffering an atypical femur fracture while taking bisphosphonates is still very small – just 1 in 1,000 patients after six years of treatment – research presented today at the 2012 Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS) found that discontinuing bisphosphonate use following an atypical femur fracture can significantly lower the risk for a subsequent atypical fracture.

Scientists believe that bisphosphonates may suppress the body's natural process of remodeling -- where old bone tissue is replaced with new, healthy tissue – in some patients, resulting in brittle bones susceptible to atypical fractures, especially in the femur.

Investigators reviewed femur fracture data from Jan. 1, 2007 until Dec. 31, 2009 in patients older than 45 enrolled in a large California HMO. There were 126 patients with an atypical femur fracture who reportedly took bisphosphonates prior to their bone break.

The incidence of a subsequent atypical femur fracture occurring in the other thigh was 53.9 percent in patients who continued bisphosphonates

for three or more years after their first fracture, compared to 19.3 percent in patients who discontinued bisphosphonate use. Overall, subsequent atypical femur fractures were decreased by 65.6 percent when bisphosphonates were stopped within one year following the first fracture.

"The risk of a contralateral atypical femur fracture (on the opposite side) increases over time if the bisphosphonates are continued," said lead investigator Richard Dell, MD, a researcher in the Department of Orthopaedics at Kaiser Permanente. "Based on these observations, we recommend discontinuing bisphosphonate use as soon as possible after the initial atypical femur fracture has occurred."

Dr. Dell then recommends the ongoing evaluation of these patients, through X-ray or MRI, as they still are at risk for a subsequent, atypical femur fracture on the other femur.

If the patient is at high risk for other fractures, the study recommends use of an alternative osteoporosis medication.

Provided by American Academy of Orthopaedic Surgeons

Citation: Halting bone-building osteoporosis drug use cuts risk for additional atypical femur fracture in half (2012, February 8) retrieved 20 March 2024 from https://medicalxpress.com/news/2012-02-halting-bone-building-osteoporosis-drug-additional.html