What Is New In First Half Of 2010 Concerning Atypical Femur Fractures In Patients Using Bisphosphonates

Fosamax, Boniva, And Other Drugs In This Class Are Under Scrutiny Due To This Emerging Drug Safety Issue

(Posted by Tom Lamb at www.DrugInjuryWatch.com on June 26, 2010; see http://bit.ly/9eEfqY)

We have reported previously about atypical low-energy femoral, or femur, fractures associated with the long-term use of Fosamax and other bisphosphonates. For example, in mid-December 2009 we posted this article, "Bisphosphonates Such As Fosamax And Femur Fractures: Some Recent 2009 Medical Journal Articles", here on our Drug Injury Watch blog.

In this new article we take a quick look at various developments regarding this emerging drug safety issue involving the bisphosphonate class of drugs.

We start with a June 24, 2010 *Wall Street Journal* article, "WellPoint's Data Led It To Limit Use Of Drug Boniva Article", from we learn that the largest U.S. managed care business in terms of membership, WellPoint Inc., has found through internal research that the osteoporosis drug Boniva, which is marketed by Roche Holding AG's Genentech and GlaxoSmithKline PLC, is linked to higher fracture rates than two other bisphosphonates, Actonel, marketed by Sanofi-Aventis SA and Warner Chilcott PLC, and Fosamax, marketed by Merck & Co.

Going back a couple of months, at the FDA's Drug Safety Oversight Board (DSB) Meeting held on April 15, 2010, one of the topics discussed was "Bisphosphonates and a potential risk of atypical femoral shaft fracture". In particular, the DSB discussed:

- Overview of osteoporosis pathophysiology and treatment goals
- The National Osteoporosis Foundation 2008 established osteoporosis screening and treatment guidelines
- Bisphosphonate drug utilization trends in the U.S.
- Mechanism of action for bisphosphonates
- Efficacy and safety of bisphosphonates
- The American Society of Bone and Mineral Research's draft definition of subtrochanteric femoral and hip fractures
- Data on the occurrence of subtrochanteric femoral fractures in patients using bisphosphonates from several large observational registry-based studies
- A recently published study (The FLEX trial) on the long term use of bisphosphonates
- The additional data needed to better ascertain whether bisphosphonates are associated with an increased risk of subtrochanteric femoral fractures
- Recommendations regarding future drug safety communications about bisphosphonates and a potential risk of atypical fractures

About a month earlier, on March 10, 2010, there was this item "FDA Drug Safety Communication: Ongoing safety review of oral bisphosphonates and atypical subtrochanteric femur fractures", issued by the agency.

Moving into the medical realm, in early March 2010 the medical journal *Clinical Endocrinology* published this article, "Unusual Mid-shaft Fractures during Long-term Bisphosphonate Therapy" (from *Medscape*; free registration required). From the Abstract for this article:

> **Conclusion** Long-term bisphosphonate therapy may increase the risk of unusual long bone mid-shaft fractures. This is probably due to prolonged suppression of bone turnover, which could lead to accumulation of microdamage and development of hypermineralized bone. At present, the scope of this complication in the larger context of patients receiving bisphosphonate therapy remains unknown, but appears to be small.

Lastly, at the 2010 Annual Meeting of the AAOS (American Academy of Orthopaedic Surgeons and American Association of Orthopaedic Surgeons), there were two so-called "Podium Presentations" of interest.

First, there is "The Structural Effects of Long-Term Bisphosphonate Treatment Leading to Atypical Hip Fractures" (Podium No: 241), which included this statement:

> Structural integrity worsened with long-term bisphosphonate treatment, suggesting an underlying structural mechanism contributing to atypical transverse subtrochanteric fractures.

And second, from "The Effects of Long-Term Bisphosphonate Use on Bone Quality" (Podium No: 339), we get this finding:

> Our data suggest that suppression of bone turnover with long-term bisphosphonates results in a loss of heterogeneity of the tissue properties that may contribute to the risk of atypical fractures.

Of course, we will continue to monitor the safety profile of Fosamax (alendronate), Boniva (ibandronate) and the other bisphosphonates.

Attorney Tom Lamb represents people in personal injury and wrongful death cases involving unsafe prescription drugs or medication errors. The above article was posted originally on his blog, **Drug Injury Watch** – with live links and readers' Comments.
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