Use of medication for enlarged prostate not associated with increased risk of hip fracture

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Use of a class of medications for treating an enlarged prostate, known as 5-α reductase inhibitors, are not associated with an increased hip fracture risk, according to a study in the October 8 issue of *JAMA*.

Benign prostatic hyperplasia (BPH; an enlarged prostate) is a common condition in aging men. It has been estimated that more than 8 million U.S. men age 50 to 79 years will meet current guidelines for considering treatment options for BPH by 2010, according to background information in the article. Treatments for BPH include surgical procedures, minimally invasive procedures and medications. Most often the first-line therapy is pharmacological, using either α-blockers, or 5-α reductase inhibitors (such as finasteride or dutasteride), which work through hormonal mechanisms. It is not clear how 5-α reductase inhibition affects long-term bone health.

Steven J. Jacobsen, M.D., Ph.D., of Kaiser Permanente Southern California, Pasadena, Calif., and colleagues examined the association between use of 5-α reductase inhibitors for BPH and occurrence of hip fracture. The study included 7,076 men, 45 years and older, who experienced a hip fracture between 1997-2006. Control patients were 7,076 men without a hip fracture during the study period. Electronic information on pharmaceutical use was used to identify use of finasteride from 1991 forward. During this period (1991 to 2006), finasteride was the only 5-α reductase inhibitor dispensed to study patients, and 109 case patients (1.5 percent) and 141 control patients (2 percent) had a history of any exposure to these compounds.

The researchers found that there was no dose-response relationship between exposure to 5-α reductase inhibitors when the exposure was stratified into levels of total exposure. Of the patients in the study, 2,547 (36 percent of the men with hip fracture) and 2,488 (35 percent of the men without hip fracture) had a prior diagnosis of BPH. The use of α-blockers was slightly greater in men with hip fracture (32 percent) compared with those without hip fracture (30 percent).

"These data suggest that 5-α reductase inhibitors do not confer a negative risk for bone health and in fact may lower the risk of hip fracture. While presumably this lower risk is related to hormonal mechanisms, further understanding of the biological mechanisms underlying this phenomenon may lead to new insights that can be exploited for preventive measures. The increased risk of fracture associated with recent receipt of an α-blocker highlights the need for careful [use] of these agents," the authors conclude.

Source: JAMA and Archives Journals