

Osteotomy Use Drops as Knee Arthroplasties Rise

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FROM THE WORLD CONGRESS ON
OSTEOARTHRITIS

BRUSSELS – Use of high-tibial osteotomy as surgical treatment for knee osteoarthritis dwindled during the decade ending in 2007, according to data collected on nearly 2,900 Swedish patients during the 10-year period.

During the same decade, use of total-knee arthroplasty (TKA) for knee osteoarthritis increased, especially in patients younger than 55 years, said Annette W-Dahl, Ph.D.

Despite diminished use, the revision rate following high-tibial osteotomy (HTO) remained modest, with a 29% rate after 10 years. That performance record for HTO suggests that using it first has the potential to delay significantly the need for TKA in patients with severe knee osteoarthritis, making HTO an attractive option for younger patients, said Dr. W-Dahl, a researcher in the de-

tively stable throughout the decade, with about 100 cases done each year, Dr. W-Dahl said at the congress, which was organized by the Osteoarthritis Research Society International.

The cumulative need for revision surgery in patients who initially underwent HTO surgery ran 29% during the period studied, with women hav-

ing a statistically significant 30% higher revision rate, compared with men, after adjustment for age and year of surgery.

Among patients younger than 65 years, 27% of the HTO patients required a revision, compared with 16% of patients who underwent unicompartmental knee arthroplasty and 8% with a TKA. ■

VITALS

Major Finding: In Sweden during 1998-2007, use of high-tibial osteotomy to treat severe knee osteoarthritis fell, to a 2% rate of all knee repair surgeries in 2007. Concurrently, use of total-knee arthroplasty rose, especially in patients younger than 55 years.

Data Source: Review of 3,196 knee surgeries during 1998-2007, using data from the Swedish national health agency.

Disclosures: Dr. W-Dahl had no disclosures.



Women who underwent high-tibial osteotomy had a 30% higher revision rate than men.

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During 1998-2007, HTO use in Sweden fell from about 5% of primary knee reconstructions for osteoarthritis in 1998 to about 2% 10 years later. In contrast, use of TKA rose from 78% in 1998 to about 90% in 2007. Use of a third surgical option, unicompartmental knee arthroplasty, also dropped during the decade studied, from 17% in 1998 to 8% in 2007.

Use of HTO also lags today in the United States, with an annual rate probably similar to Sweden's, commented Dr. Jeffrey N. Katz, professor of medicine at Harvard Medical School in Boston and director of the orthopedics and arthritis center for outcomes research at Brigham and Women's Hospital in that city. It remains unclear whether use of HTO actually delays the time when a patient with severe osteoarthritis needs TKA, he added.

The new analysis used data collected by the Swedish National Board of Health and Welfare. During the decade reviewed, surgeons performed 3,196 HTOs in 2,893 patients. Two-thirds were men, and their average age was 52 years, with 62% of the patients being younger than 55 years, and 97% aged 65 years or younger. The annual tally of HTOs fell from nearly 400 in 1998 to about 260 in 2007.

Analysis of patients younger than 55 years showed that use of TKA in this age group jumped from about 100 in 1998 to more than 500 in 2007. Concurrently, use of HTO dropped from about 230 in 1998 to about 180 in 2007; use of unicompartmental knee arthroplasty remained rela-

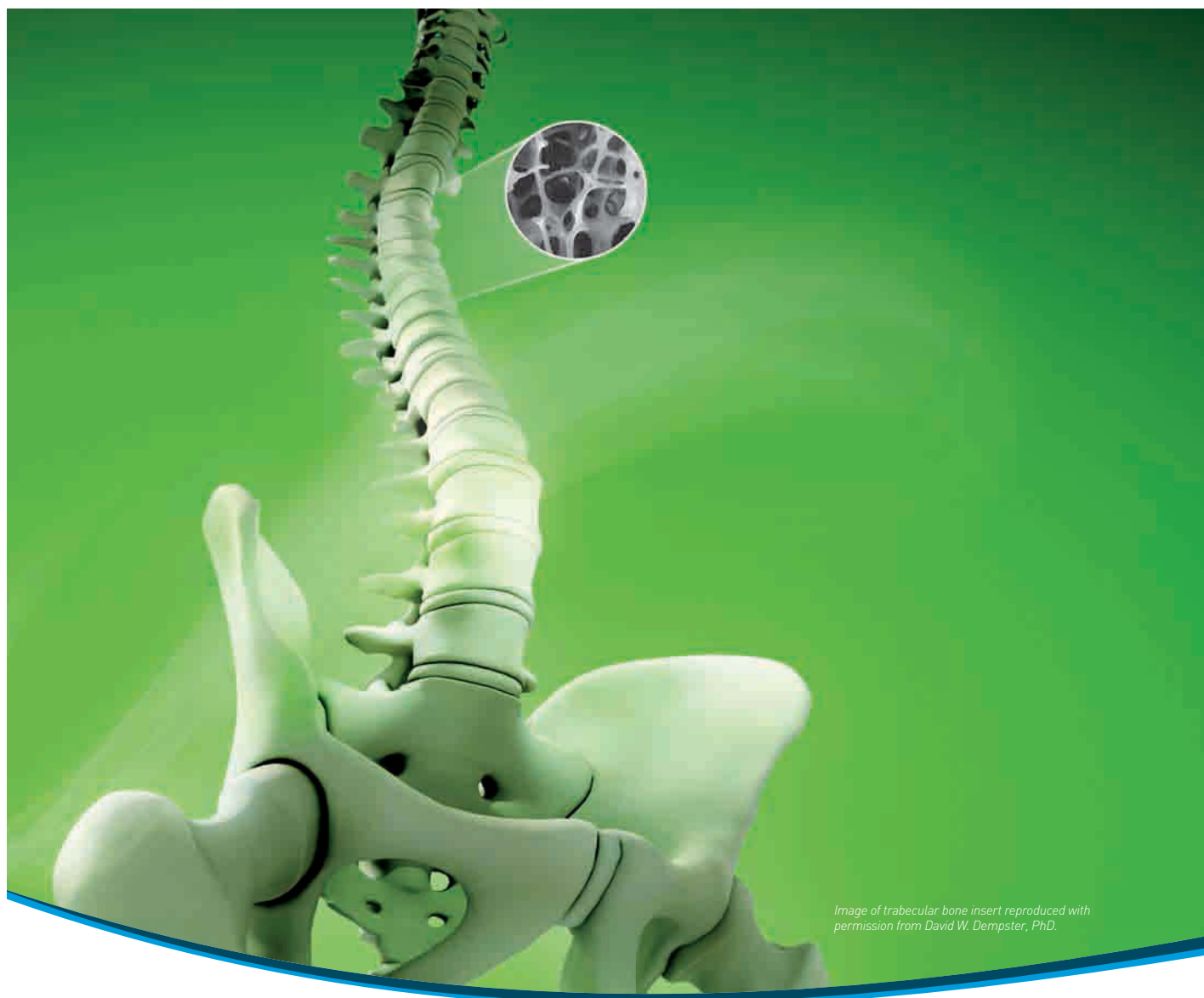


Image of trabecular bone insert reproduced with permission from David W. Dempster, PhD.

INDICATION

Prolia™ is indicated for the treatment of postmenopausal women with osteoporosis at high risk for fracture, defined as a history of osteoporotic fracture, or multiple risk factors for fracture; or patients who have failed or are intolerant to other available osteoporosis therapy. In postmenopausal women with osteoporosis, Prolia™ reduces the incidence of vertebral, nonvertebral, and hip fractures.

IMPORTANT SAFETY INFORMATION

- ✿ **Hypocalcemia:** Prolia™ is contraindicated in patients with hypocalcemia. Pre-existing hypocalcemia must be corrected prior to initiating Prolia™. Hypocalcemia may worsen, especially in patients with severe renal impairment. In patients predisposed to hypocalcemia and disturbances of mineral metabolism, clinical monitoring of calcium and mineral levels is highly recommended. Adequately supplement all patients with calcium and vitamin D.
- ✿ **Serious Infections:** In a clinical trial (N = 7808), serious infections leading to hospitalization were reported more frequently in the Prolia™ group than in the placebo group. Serious skin infections, as well as infections of

the abdomen, urinary tract and ear, were more frequent in patients treated with Prolia™. Endocarditis was also reported more frequently in Prolia™-treated subjects. The incidence of opportunistic infections was balanced and the overall incidence of infections was similar between the treatment groups. Advise patients to seek prompt medical attention if they develop signs or symptoms of severe infection, including cellulitis.

Patients on concomitant immunosuppressant agents or with impaired immune systems may be at increased risk for serious infections. In patients who develop serious infections while on Prolia™, prescribers should assess the need for continued Prolia™ therapy.

- ✿ **Dermatologic Adverse Reactions:** Epidermal and dermal adverse events such as dermatitis, eczema and rashes occurred at a significantly higher rate in the Prolia™ group compared to the placebo group. Most of these events were not specific to the injection site. Consider discontinuing Prolia™ if severe symptoms develop.

- ✿ **Osteonecrosis of the Jaw (ONJ):** ONJ, which can occur spontaneously, is generally associated with tooth extraction and/or local infection with delayed healing, and has been reported in patients receiving Prolia™. An oral exam should