Pyrocarnon Implant Promising for Carpmetacarpal Arthritis of Thumb

BY SHARON WORCESTER
Tallahassee Bureau

FAJARDO, P.R. — A new strategy for performing hemiarthroplasty for arthritis in the thumb carpometacarpal joint, appears to reduce pain and improve function.

The procedure involves using a pyrolytic carbon metacarpophalangeal (MCP) metacarpal head implant, Robert Beckenbaugh, M.D., said at the annual meeting of the American Association for Hand Surgery.

Previous implants of the thumb’s carpometacarpal joint have involved using a round zirconium prosthesis that provided relief of pain and discomfort and ranked high in patient satisfaction. However, significant subsidence of the zirconium balls occurred.

A German surgeon, attempting to address this adverse event and create a stronger joint, developed the new procedure using the pyrocarbon implant, he explained.

Initial experience with 12 patients suggests that the procedure leads to early functional improvements during the postoperative course, and excellent mobility and pain relief up to 7 months later, said Dr. Beckenbaugh of the Mayo Clinic, Rochester, Minn.

The implant is inserted into the base of the thumb metacarpal, and the acetabulum for the implant is prepared in the distal end of the trapezium. The patient remains in a cast for 6 weeks. Impressed by the 1-year results reported from Germany, Dr. Beckenbaugh traveled there to learn the technique. Early results suggest such outcomes are occurring in his patients as well.

In his case series of 12 patients with rheumatoid arthritis, psoriatic arthritis, or osteoarthritis, after at least 3 months follow-up, half reported 100% pain relief postoperatively, and the other half reported only occasional pain. There has been no change in grip strength, but the improvements in pain have been significant.

One patient, a 45-year-old with severe rheumatoid arthritis and no use of her thumb, reported good function and no pain at 7 months follow-up. She had good stability of the carpometacarpal joint. Another patient who had 2 years of unsuccessful conservative treatment for osteoarthritis, underwent the procedure and experienced significant pain reduction and now has no difficulty opposing her thumb to her index or small fingers. In his case, 12 patients with rheumatoid arthritis, psoriatic arthritis, or osteoarthritis, after at least 3 months follow-up, half reported 100% pain relief postoperatively, and the other half reported only occasional pain. There has been no change in grip strength, but the improvements in pain have been significant.

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Use of Cement Advised in Arthroplasty of PIP Joint

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FAJARDO, P. R. — Patients undergoing arthroplasty of the proximal interphalangeal joint should opt for the cemented fixation device, according to Dr. Johnstone of the Royal Children’s Hospital, Melbourne, Australia.

When loosening and subsiding has occurred, it is often with angulation that leads to early dislocation of the device penetrating the cortical bone.

At first the subsidence is typically asymptomatic. However, as it progresses, pain and stiffness tend to develop.

As a precaution, it is best to use methylmethacrylate bone cement to fix the stems of the cement-optional Avanta PIP surface replacement arthroplasty, he recommended at the meeting.

Those with cemented implants experienced a significant decrease in their pain, with scores on the visual analog scale improving by 5 points or more, Dr. Johnstone said.