Shoulder Arthritis? What Patients Need to Know Before Treatment

AAOS Issues Clinical Practice Guidelines for Treating Glenohumeral Joint Osteoarthritis

Rosemont, Ill. – The American Academy of Orthopaedic Surgeons (AAOS) has approved and released an evidence-based clinical practice guideline on “The Treatment of Glenohumeral Joint Osteoarthritis.” This major joint in the shoulder — the ball and socket joint — is sometimes affected by osteoarthritis, causing pain, loss of function, and reduced quality of life.

According to Rolando Izquierdo, MD, chair of the Academy work group on glenohumeral joint osteoarthritis, shoulder replacement surgery has been routinely performed since the 1970s for patients with advanced osteoarthritis of the shoulder. A review of the literature supports the use of both total and partial shoulder replacement for this population.

“The literature suggests, though, that pain relief is better and motion is better with total joint replacements than with partial replacements,” says Dr. Izquierdo. “We also have to consider the 14 percent failure rate of partial replacements, which then require revision to total replacements. This revision is required due to progressive arthritis and pain.

“Because of a scarcity of high quality prospective studies, however, surgeons have few measures to support non-operative therapies for treating osteoarthritis of the shoulder,” he adds.

The final treatment guidelines for treating glenohumeral joint osteoarthritis contain 16 recommendations. These include both operative and non-operative treatment options. Some important recommendations include the following:

- One industry-supported study demonstrated that viscosupplementation shows a statistically significant benefit in pain relief, range of motion, and quality of life in patients with osteoarthritis of the shoulder. Essentially, viscosupplementation is a synthetic reproduction of a naturally occurring joint fluid that lubricates joints. Doctors inject synthetically created molecules, similar to the natural joint fluid, into an arthritic joint. Viscosupplementation is, therefore, an option when treating patients with glenohumeral joint osteoarthritis. The U.S. Food and Drug Administration (FDA) considers viscosupplementation an implant. While they approved the use of this procedure for treating knees in 1997, they have not yet approved this treatment for use in shoulders.

- Surgeons should routinely take preventive steps to reduce the risk of potentially catastrophic complications caused by blood clots during and immediately following surgery. Exercises to increase blood flow and blood-thinning medications can also help avoid blood clots, as well. The Academy work group reached consensus with this recommendation, believing that the risk of not taking these preventive actions outweighs the risk of taking them.
The work group found a lack of quality prospective literature exists for recommending for or against the following treatments for osteoarthritis of the glenohumeral joint:

- Drug therapy;
- Injectable steroids; or
- Arthroscopy (a surgical procedure surgeons sometimes use to diagnose and treat problems inside a joint).

Further, despite an exhaustive review of the literature, not a single study exists to support the use of physical therapy either for treating osteoarthritis of the shoulder or for treatment after replacement, Dr. Izquierdo says.

“There is a great variety in the types of therapies utilized, but very little guidance. It would be nice to have some data by a physical therapist or orthopaedic surgeon, but the studies have not been done.”

The Centers for Disease Control and Prevention reports that more than 51 million Americans have been diagnosed with some form of arthritis. Shoulder replacements are the third most common joint replaced, following hips and knees.

While Dr. Izquierdo specializes in shoulder replacements, performing a high volume each year, most surgeons replace far fewer shoulders than hips or knees, he says. In fact, 75 percent of all shoulder replacements are done by non-specialists who perform two or fewer shoulder replacements a year. An option for reducing immediate post-operative complication rate, therefore, is for patients to avoid shoulder replacement by surgeons performing fewer than two shoulder replacements a year.

“One important take home message for a patient considering shoulder replacement therapy is to find an orthopaedic surgeon who is trained in shoulder replacements to reduce immediate post-operative complication rates.

“These are the first guidelines for treating osteoarthritis of the glenohumeral joint,” says Dr. Izquierdo, “There is minimal data currently available related to non-operative management of osteoarthritis of this joint. We are hoping these guidelines will stimulate further research to fill some of the void in the literature that currently exists for managing glenohumeral joint osteoarthritis.”

Editor’s Note: These AAOS guidelines were developed by an AAOS physician volunteer work group and was based upon a systematic review of the current scientific and clinical information on accepted approaches to treatment and/or diagnosis. The entire process included a review panel consisting of internal and external committees, public commentaries and final approval by the AAOS Board of Directors.

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The full guideline along with all supporting documentation and workgroup disclosures is available on the AAOS website: http://www.aaos.org/guidelines.

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