

Arthritic knees remain painful after arthroscopic surgery

Trimming damaged tissue through arthroscopic surgery does not relieve pain and swelling in arthritic knees any better than simply flushing loose debris from the joint, according to a new review of evidence.

However, these findings come from studies on a broad range of patients. The technique, known as arthroscopic debridement (AD), might still improve comfort and mobility in some subsets of patients with the most common form of arthritis, the review authors say.

“Surgeons should make a careful decision about using AD for the treatment of knee osteoarthritis,” said lead author Wiroon Laupattarakasem, M.D., of Khon Kaen University in Thailand. “It should by no means be regarded as inappropriate for every knee.”

Osteoarthritis is typically a progressive disease that affects the hands, hips, shoulders and knees, especially in older people. The condition causes cartilage — which cushions the ends of bones in these joints — to break down. Loose bits of tissue can then cause pain, swelling and poor joint function.

Arthroscopic surgery for knee osteoarthritis can include a number of different procedures. These range from lavage, which is flushing and suctioning debris from the joint, to methods like debridement for trimming damaged cartilage and bone spurs. Surgeons might also treat the bone itself with abrasion or microfracture to stimulate the growth of new cartilage.

The review appears in the most recent issue of The Cochrane Library, a publication of The Cochrane Collaboration, an international organization that evaluates medical research. Systematic reviews draw evidence-based conclusions about medical practice after considering both the content and quality of existing medical trials on a topic.

The reviewers base the latest findings on three randomized controlled studies with 271 patients. The largest and most reliable of these studies compares arthroscopic debridement with lavage and sham surgery. The three treatments produce similar results in pain and physical function after two years, although debridement could cause greater discomfort in the first few weeks after surgery.

Only about half of the eligible patients agreed to participate in this study, the reviewers noted, and such self-selection reduces the relevance of the study to the general population. Those who participated were more likely to expect benefits from the treatment, which might have contributed to the positive results among the placebo group.

The other two studies produced low-quality evidence, according to the review, because there were fewer than 50 patients in each treatment group and the studies employed less reliable research methods.

Possible side effects of arthroscopic surgery include a small risk of infection and blood clots. Moreover, the procedure does not stop the progression of osteoarthritis. Symptoms of the disease are likely to return over time and surgical realignment or replacement of the joint could ultimately be necessary.

At this time, clinicians must make decisions regarding arthroscopic debridement on a case-by-case basis. “There may be certain types of pathology or certain levels of disease severity for which AD can be more effective,” says Laupattarakasem.

“The only osteoarthritis patients I typically consider for arthroscopic surgery are those with mild to

moderate disease and mechanical symptoms in the knee,” agreed Scott Zashin, M.D., a rheumatologist at the University of Texas Southwestern Medical Center. Such symptoms occur when fragments of cartilage interfere with the joint, causing a painful popping sensation or even locking or buckling of the knee.

“Future research on this topic should analyze larger numbers of participants with various types of soft-tissue damage and levels of arthritis severity,” the review authors say. Since performing sham surgery is subject to ethical questions, the reviewers recommend that future projects compare various treatment options to one another.

Future studies should also clearly describe specific surgical techniques, as AD can include a variety of procedures. The inclusion of bone abrasion and microfracture techniques could produce different results.

They also recommend that future studies not only report pain and mobility, which can be subjective, but report a more objective measure: when patients require further treatment to sustain joint function.

Unfortunately, medical treatments today are limited to relieving symptoms with drugs or surgery, according to Zashin. “I’m optimistic that more research will be done in terms of preventing further damage and loss of cartilage for those who have osteoarthritis.”

In the meantime, he added, obesity is a known risk factor for osteoarthritis in weight-bearing joints. “For patients who are overweight, losing weight seems to help them feel better and slow down progression of the disease.”

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