How Well Does Arthroscopic Surgery Work for Knee Osteoarthritis?

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A: Degenerative knee osteoarthritis (OA) can be treated with Physical Therapy, medications, or surgery when appropriate. The focus of this study was the effectiveness of arthroscopic surgery for knee OA. The specific procedure studied is called arthroscopic debridement.

The surgeon shaves away any uneven areas of the joint surface and smoothes any jagged edges in the cartilage. If there are any loose fragments in the joint, these are removed as well. Joint swelling, stiffness, and pain are believed to improve with this treatment but the effect of debridement in the actual degenerative process itself is unknown.

What we do know from studies so far is that knee arthroscopic debridement reduces pain and improves knee function for up to five years or more. Now with the results of this study, we have another piece of information about results using arthroscopic debridement based on the severity of the OA.

All participants in the study were adults 45 years old or older with a diagnosis of Grade II or Grade III osteoarthritis of the knee (on a scale from I to IV). These grades are based on X-ray findings of severity of the condition. Some, but not all, of the patients were overweight, which may be a contributing factor to the development of OA.

Using arthroscopic debridement, the surgeon removed loose fragments of tissue (e.g., bone spur, pieces of meniscus). A saline solution was used to flush any remaining debris from the joint.

Everyone was followed at regular intervals for two years. Patients with grade II (less severe) OA did just fine with this treatment. But patients with grade II (more severe) OA did not fare as well. X-rays showed ongoing joint degeneration within the year following the debridement procedure in the patients with grade III OA. These patients did experience improvements in symptoms (less stiffness, less pain, more motion) but they were unable to maintain the results.

Arthroscopic debridement is considered a stop-gap measure. It seems to yield the best results when the disease has just started and the joint surface is not damaged or worn unevenly. Treatment of this kind is also more likely to be successful when the patient is not overweight. Patients who exercised and strengthened the legs also had better results.

The authors still recommend the use of arthroscopic debridement for grades II and III osteoarthritis. Patients should be informed that the results may be temporary but could buy them some time before needing a knee replacement.