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Arthroscopic Knee Surgery No Better Than Placebo Surgery

July 11, 2002 — Arthroscopic knee lavage or debridement was no better than placebo surgery in a randomized controlled trial described in the July 11 issue of the *New England Journal of Medicine*.

"The fact that the effectiveness of arthroscopic lavage or debridement in patients with osteoarthritis of the knee is no greater than that of placebo surgery makes us question whether the dollars spent on these procedures might not be put to better use," senior author Nelda P. Wray, MD, MPH, from Baylor College of Medicine in Houston, Texas, says in a news release. In this study, 180 patients with knee pain received arthroscopic debridement, arthroscopic lavage, or simulated arthroscopic surgery in which the surgeon made small incisions without inserting instruments or removing cartilage. All patients randomized to one of these three groups signed an informed consent and were treated by the same surgeon.

Of 324 subjects meeting inclusion criteria, 44% declined to participate, suggesting that the consent procedure effectively explained that subjects might receive only a sham operation. Throughout the study, subjects were blinded to the type of procedure they received.

During two years of follow-up, patients in all three groups reported moderate improvements in pain and functional ability, but neither the debridement nor the lavage group fared better than the placebo group. At certain points during follow-up, subjects receiving sham surgery reported better outcomes than those receiving debridement.

Earlier clinical trials of arthroscopic knee surgery have shown pain relief in most patients but did not compare the actual procedures to sham operations. In the U.S., more than 650,000 arthroscopic debridement or lavage procedures are performed annually, many for arthritis, at a cost of about \$5,000 each.

"This study has important policy implications," Wray says. "We have shown that the entire driving force behind this billion dollar industry is the placebo effect. The health care industry should rethink how to test whether surgical procedures, done purely for the relief of subjective symptoms, are more efficacious than a placebo."

In an accompanying editorial, David T. Felson, MD, MPH, from Boston University, Massachusetts, and Joseph Buckwalter, MD, from the University of Iowa in Iowa City, suggest that arthroscopic removal of debris merely removes the evidence of joint destruction with negligible effect on symptoms.

"Larger forces within and outside the joint environment, such as malalignment, muscle weakness, instability, and obesity, which are not addressed by this type of surgery, may have greater effects on the clinical outcomes of osteoarthritis of the knee," they write.

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