Level V Evidence

Making Sure the Media Gets It Right on Orthopaedic Research

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Abstract: Patient-centered medicine requires an informed health care consumer. Traditionally, orthopaedic surgeons were the primary source for patients regarding diagnostic and treatment options for musculoskeletal conditions. Now patients get information from a variety of sources including the Internet, social media, and print journalism. Most of these sources are not vetted or peer reviewed and some not even fact checked. Part of the role of the orthopaedic surgeon is to educate patients, and interpreting this type of information is an increasingly demanding but essential task. A recent article in the *New York Times* titled "Why 'Useless' Surgery Is Still Popular" illustrates the importance of this educational role. Patients deserve the most up-to-date and accurate assessment of medical information. The most appropriate source of that information is their treating physician and surgeon.

On August 3, 2016, the *New York Times* published an article titled "Why 'Useless' Surgery Is Still Popular"[1] by reporter Gina Kolata. I recommend that you all access this article and read it because you probably have or will hear about it from your patients. The article will confuse patients concerning treatment options you will offer them for their significant knee complaints. You will be surprised when you read the article as to just how oblivious the article is to the essentials of the issue. She begins her article with the sensational charge that orthopaedic surgeons are ignoring important evidence and recommending surgical procedures to patients that offer them absolutely no benefit. Her statements and conclusions lead one to believe that she did not read the studies she cites.

The article correctly identifies something that orthopaedic surgeons have known for decades: that arthroscopic surgery for torn cartilage is of questionable benefit in moderate to severe osteoarthritis of the knee. It also correctly states that there have been several randomized clinical trials in the last 10 years designed to assess the efficacy of arthroscopy and removal of cartilage by comparing the surgical procedure with other treatments.[2-5] She then cites a specific multicenter study comparing arthroscopy and physical therapy and states that the surgery "offered little to those that had it."[4] This is blatantly false. The results as presented in the actual article were that patients improved more with arthroscopy at 6 months (a 20- vs 18-point improvement on a validated pain and function score). The improvement was not statistically significant so the proper conclusion is that physical therapy and surgery provided *the same* overall improvement for the 2 groups. In addition, Ms. Kolata makes no mention of the many limitations of the study discussed by the authors as a caution against drawing improper and sweeping conclusions based on their research. This is a shame because that would truly have been a service to the *Times*' readership—educating them on the appropriate and critical way to analyze this type of information to become informed patients.

That education begins with discussing some of the problems with these types of studies in surgical patients. The first is selection bias. The authors in this study cited an eligible pool of patients numbering 1,330 yet were able to enroll only 351 (24%) in the study. Because of this they warn that the "findings must be generalized cautiously." The second is crossover; a full 30% of patients in the physical therapy group decided they wanted to have surgery within the time frame of the study! Because of this the authors established criteria for success of treatment, and based on that found that

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67% of the arthroscopic group had a successful treatment versus 44% of those treated with physical therapy. If a doctor presented you that evidence, what would you pick for your knee?

The real value of the study, and all the other randomized trials performed to date on this subject, is to caution orthopaedic surgeons to recommend this procedure only to those who might benefit and that a trial of nonoperative treatment is wise, and may have value for those patients with a meniscal tear and some osteoarthritis. We have been taught that for 20 years, and this is largely the standard of care today by practicing orthopaedic surgeons.

Finally, if Ms. Kolata had contacted Medicare and asked for data concerning the incidence of this procedure in their database, she would have found that there are fewer arthroscopic procedures being performed for this condition than in the past.[6] This is true despite a significant increase in the number of Medicare patients during that time frame. There is research that indicates the incidence is falling in the non-Medicare population also.[7] This is a direct result of the dissemination of this type of information to the orthopaedic community.

Your patients deserve much better than this slanted and agenda-driven type of journalism. They need you to act as a filter for the information in the public arena concerning the efficacy of the treatments we provide. You are the experts in musculoskeletal care and need to provide your patients with an interpretation of information like this leavened with expert analysis and experience.

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