Knee Bracing After Anterior Cruciate Ligament Reconstruction

To the Editor:

We read with great interest the article by Rodríguez-Merchán1 regarding knee bracing after anterior cruciate ligament (ACL) reconstruction. The author focused on whether it is necessary to use a postoperative brace after ACL reconstruction. On the basis of his finding several systematic reviews and other reports on the topic, he concluded that the use of a postoperative brace after ACL reconstruction was not supported; postoperative bracing after ACL reconstruction does not seem to help with pain, function, rehabilitation, and stability; and there is insufficient evidence to inform current practice. Although this was a valuable study, we have several queries for the author.

First, we find the key search terms used by the author to be controversial. Using ACL reconstruction and knee brace as the key search terms, the author found 91 articles, but only 28 focused on the subject of bracing after ACL reconstruction and were selected for this review. However, some articles use the terms functional bracing and rehabilitation brace rather than knee brace. In December 2016, when using ACL reconstruction and brace as the key search terms, we found 184 articles, with 57 focusing on the subject. Given this quantitative difference, key search terms may affect the accuracy of conclusions.

Second, the review ignores the psychological benefits of the brace. For some patients, a brace can not only increase their confidence in the stability of their knees but also remind them that they cannot ignore rehabilitation exercise.

Third, as a result of the limited key search terms, the author did not notice that there are several kinds of braces with different functions (eg, conventional, sleeve, fluid-filled soft)3. For instance, the unloader knee brace, adjusted or unadjusted, has the potential to improve knee-related symptoms associated with knee osteoarthritis after ACL reconstruction.4

Fourth, for some patients, special braces may play an indispensable role. For instance, the unloader knee brace, adjusted or unadjusted, has the potential to improve knee-related symptoms associated with knee osteoarthritis after ACL reconstruction.4

The authors have no relevant financial relationships to disclose.

REFERENCES


Reply:

I appreciate the comments of Chen et al and the opportunity to respond to them.

First, the controversy regarding the number of articles can be explained by the different periods of our searches. My article was submitted in spring 2013, accepted after multiple rounds of revision in February 2015, and published in July 2016. My final search was conducted between January 1, 1995, and September 30, 2013. Chen et al conducted their search in December 2016. I believe that between September 30, 2013, and December 2016, many articles would have been published on this topic.

Second, I do not think that there is enough scientific evidence in the ACL reconstruction literature to support the potential psychological benefits of a postoperative brace. I personally do not believe in these psychological effects. Plus, these braces are expensive.

Third, Chen et al mention that there are several kinds of braces. I agree, but that was not the subject of my review. The important point is that, in my review, I could not find enough scientific support to recommend any type of brace after ACL reconstruction. If Chen et al have found a high level of evidence in their own experience or in the literature to support the postoperative brace, perhaps they could publish a report about this.

Fourth, Chen et al mention that special braces may play an indispensable role for some patients. To the best of my knowledge, this statement cannot be supported by studies with a high level of scientific evidence.

In my article, I stated, “Several systematic reviews and randomized, controlled trials on the topic do not recommend the use of postoperative brace after ACL reconstruction. Postoperative bracing after ACL reconstruction does not seem to help with pain, function, rehabilitation, and stability. The literature does not support the use of a postoperative brace following ACL reconstruction.” If Chen et al do not agree, perhaps they can conduct and publish a systematic review and meta-analysis to the contrary.

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