Meniscal Treatment Options: The Present and Future

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The importance of the meniscus is well established and damage to this structure, followed by its loss, results in the development of radiographic changes. One recent systematic review indicated that, as Fairbank reported after open meniscectomy, osteoarthritic changes are present at 8 to 16 years after arthroscopic partial meniscectomy; however, clinical symptoms are not significant. Another systematic review points out that while meniscus removal has a lower reoperation rate than meniscal repair, meniscal repair is associated with better long-term outcomes. Consequently, a link between meniscal loss and diminished knee function seems reasonable and the commonly held belief that every effort should be made to repair a torn meniscus seems appropriate.

Several approaches to arthroscopic meniscal repair have developed. These can be described as outside-in, inside-out, and all-inside. As the articles in this issue make abundantly clear, regardless of the technique chosen the key to meniscal repair healing is a good blood supply, the absence of meniscal degeneration, and a stable knee (intact or concurrently reconstructed ACL). Several investigators are exploring the potential for the enhancement of meniscal healing using biologic techniques, allografts, or synthetic meniscal replacement. The current literature confirms several clinically significant observations. Medial meniscus repair is more likely to fail than lateral meniscus repair, presumably because of the better blood supply associated with the lateral meniscus and the different mechanical stresses between compartments. Also, meniscal repairs performed at the time of anterior cruciate ligament reconstruction have lower failure rates than repairs done without a reconstruction. Yet, evidence exists that not all meniscal tears need repair and that some (especially the lateral meniscus) can heal or at least remain asymptomatic long term.

In reviewing the literature of meniscal repair techniques, it is clear that level 1 or 2 data are lacking to support many of these conclusions. Outcome measures vary between published studies, and the continuing introduction of new “improved” repair devices makes the collection of a significant number of cases with long-term results using 1 repair technique problematic.

This issue of Sports Medicine and Arthroscopy Review tackles the subject of what to do with the meniscus and gives a glimpse of future treatment options. This includes leaving the torn meniscus in situ without debridement, meniscectomy (whether this should or should not be done), and the various techniques for meniscal repair. Meniscal replacement with either an allograft or a synthetic implant is addressed, and the current state of biologic enhancement is reviewed. Finally, surgeons often focus on specific surgical techniques and overlook postoperative care. A thoughtful discussion of the area of postoperative management after meniscal repair is presented.

REFERENCES


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