

Comparing Meniscus Repair and Meniscectomy: A Healthcare Database Analysis in the United States

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Abstract:

Background: Meniscal tears are among the most common musculoskeletal injuries in the US. Surgically removing (meniscectomy) or reapproximating (meniscal repair) the torn pathology is the mainstay of treatment for these lesions. The aim of this study was to examine outcomes in meniscus repair and meniscectomy by analyzing data from a large healthcare database.

Methods: The PearlDiver database was queried for patients who had undergone either meniscus repair or meniscectomy with a minimum follow up of 2 years. Patients who had undergone both procedures or concurrent ligament reconstruction were excluded. Propensity score matching was performed to compare characteristics, postoperative outcomes, and complications via Student's t-testing ($p < 0.05$) in all patients that met inclusion and exclusion criteria.

Results: A total of 8,428 patients (5,594 meniscectomy, 2,834 meniscus repair) were included in this study. At 2 years, there were lower rates of knee osteoarthritis ($p = 0.001$ at year 1, $p = 0.021$ at year 2), need for palliative injections ($p = 0.001$ at year 1, $p = 0.005$ at year 2), and reoperation ($p < 0.001$ at year 1, $p < 0.001$ at year 2) following meniscus repair versus meniscectomy. At 30 days, there were higher rates of DVT ($p = 0.002$), but lower rates of infection ($p = 0.012$) and wound complications ($p < 0.001$) following meniscus repair in comparison to meniscectomy.

Conclusions: This database analysis suggests that meniscal repair leads to better overall outcomes for patients than meniscectomy and should be strongly considered whenever possible for meniscal tears.