COBLATION® technology results in significantly fewer revision or replacement surgeries than mechanical debridement (MD)

Patients with COBLATION-treated grade III articular cartilage lesions also experienced significantly better clinical outcomes

Study design

- Sixty patients with grade III medial-femoral cartilage defects undergoing medial meniscectomy with concomitant chondroplasty were randomized to treatment with COBLATION bipolar radiofrequency technology or MD with a shaver.
- Follow up occurred at four years; with two patients lost to follow up, 18 patients had undergone revision surgeries and 40 were reviewed.

Key results

- A significantly higher proportion of revisions for persistent knee problems occurred in the MD group (p < 0.01; Figure).
- Of the patients that did not require revision or replacement surgery (n = 40), those receiving COBLATION had statistically significant improvements compared with MD for:
  - Knee and Osteoarthritis Outcome Score: 71.8 vs 53.2 (p < 0.001)
  - Tegner Score: 4.5 vs 3.3 (p = 0.005)
- Varus angle on standing was significantly higher in the MD group: 2.3 vs 4.0 (p < 0.001)

Conclusion

Compared with conventional MD, COBLATION chondroplasty resulted in fewer revision or replacement surgeries and better outcomes for the remaining patients.

Considerations

- Both groups were comparable in baseline characteristics.

Study citation