The Results of Meniscal Allograft Transplantation Surgery: What is Success?

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Abstract
Background: Meniscal allograft transplantation (MAT) may improve symptoms and function, and limit premature knee degeneration in patients under 50 years with symptomatic meniscal loss. The aim of this retrospective study was to examine patient outcomes after MAT and to explore the potential definitions of ‘success’ or ‘failure’. Methods: 60 patients who underwent MAT between 2008-2014, aged 18-50 were identified. Six validated outcome measures for knee pathologies, patient satisfaction and return to sport were incorporated into a questionnaire. Surgical failure (removal of most/all the graft, revision MAT or conversion to arthroplasty), clinical failure (Lysholm <65), complication rates (surgical failure plus repeat arthroscopy for secondary allograft tears) and whether patients would have the procedure again were recorded. Statistical analysis included descriptive statistics, with patient-reported outcome measures reported as median and range. A binomial logistic regression was performed to assess factors contributing to failure. Results: 43 patients (72%) responded, mean age 35.6 (±7.5). 72% required concomitant procedures, and 44% had Outerbridge III or IV chondral damage. The complication rate was 21% (9). At mean follow-up of 3 (±1.9) years, 9% (4) were surgical failures and 21% (9) were clinical failures. Half of those patients considered a failure stated they would undergo MAT again. In the 74% (32) reporting they would undergo MAT again, median KOOS, IKDC and Lysholm scores were 82.1, 62.1 and 88, compared to 62.2, 48.5 and 64 in patients who said they would not. None of the risk factors significantly contributed to surgical or clinical failure, although female gender and number of concomitant procedures were nearly significant. Following MAT, 40% were dissatisfied with type/level of sport achieved, but only 14% would not consider MAT again. Conclusions: None of the risk factors examined were linked to surgical or clinical failure. Whilst less favourable outcomes are seen with Outerbridge Grade IV, these patients should not be excluded from potential MAT. Inability to return to sport is not associated with failure since 73% of these patients would undergo MAT again. The disparity between ‘clinical failure’ and ‘surgical failure’ means these terms may need re-defining using a bespoke MAT scoring system.

Full-text
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