INTRODUCTION

- Osteochondral allograft transplantation (OCA) is being performed with increasing frequency
- The impact of patient sex on outcomes and failure rates has not been assessed
- Purpose → to determine clinical outcomes for male versus female patients undergoing OCA

METHODS

- 98 consecutive patients
- Minimum 2-year follow-up
- Single surgeon
- Standard technique (Fig 1)
- Males compared to females, based on → age ± 3 years, BMI ± 5 kg/m², # of previous ipsilateral knee surgeries, and concomitant meniscal allograft transplantation
- Data collected:
  - Demographic factors
  - Pre/Post patient-reported outcomes
  - Concomitant procedures
  - Reoperation rate, type, and findings

Definition of failure

- Revision OCA
- Conversion to arthroplasty
- Gross appearance of a failed graft

RESULTS

- 98 patients → 49 males, 49 females
- Average age → 32.1 ± 9.9 years
- Average follow-up of 4.7 ± 2.33 years (range, 2.1-12.1)
- # of prior ipsilateral knee surgeries → average of 2.6 ± 1.8

Males demonstrated significantly larger defect areas compared to females (371.7±16899 vs. 310.6±117.2 mm², P=0.037), though the defect:condyle ratio was not significantly different (male: 0.19 vs. female: 0.20)

- Outcomes → Significant improvements in postoperative Lysholm, IKDC, KOOS, WOMAC, and SF-12 physical PROs compared to preoperative PROs (P<0.05 for all)
  - No significant differences in outcomes scores between males and females (P>0.05 for all)

- Reoperations → 33 patients at an average 2.4±2.4 years, with 27% (9/33) undergoing additional reoperations (range, 1-2 additional reoperations)
  - No significant differences in reoperation rates (42% vs. 27%) or time to reoperation (2.50±2.12 vs. 2.29±1.71 years) between males and females (P>0.05 for both)

- Failures → 14 patients (14%, Figure 2)
  - No significant differences in failure rates (20% vs. 8%) between male and female patients (P>0.05 for all)

DISCUSSION

- Males and females have similar clinical outcomes at 5 years following OCA, with males trending toward increased reoperation and failure rates.
- This data implies that overall, similar favorable outcomes may be expected for patients regardless of sex, with an 86% graft survival rate at 5 years.