✚ Evidence in focus

Smith+Nephew

How quadriceps tendon (QT) autograft compares to other autograft choices for anterior cruciate ligament (ACL) reconstruction in the collective literature[1-3]

QT BPTB HT

ACL injury is one of the most common ligamentous knee injuries, frequently occurring during sport.[4] **The optimal autograft choice for ACL reconstruction remains debated.**[1] Independent researchers have conducted:

3 systematic literature review and meta-analysis studies[1–3]

which compared bone-patellar tendon-bone (BPTB), hamstring tendon (HT) and QT autografts. The collective literature analyses:

213 unique studies

154,479 patients

2,159 unique QT autograft patients

Results across the collective literature included clinical and functional outcomes:

- Re-rupture and autograft failure rates[1-3]
- Donor site morbidity[1,3]
- Patient-reported outcome measures (PROMs)[1,3]
- Functional outcomes[1,3]

Compared with BPTB and HT, QT resulted in:

A comparable or lower autograft failure (or re-rupture) rate

2 studies reported a similar autograft failure rate to BPTB and HT (p=ns)[1,2]
1 study reported a significantly lower re-rupture rate compared with HT (2.5 vs 8.7%; p=0.01)[3]

A significant reduction in donor site morbidity

2 studies reported a significant reduction in donor site morbidity compared with HT (2 studies; p=0.02)[1,3] and BPTB (1 study; p<0.001)[1]

Similar PROMs

2 studies reported similar International Knee Documentation Committee (IKDC) scores to BPTB and HT (p=ns)[1,3]
1 study reported similar Lysholm scores to HT (p=ns)[3]

Similar functional outcomes

2 studies found that QT had similar side-to-side difference to BPTB and HT (p=ns)[1,3]

In the collective literature, QT is a comparable autograft choice to HT and BPTB providing similar autograft survival, patient-reported outcomes and functional outcomes. QT offers significantly lower donor site morbidity.

Abbreviations:
ACL = anterior cruciate ligament; BPTB = bone-patellar tendon-bone; IKDC = International Knee Documentation Committee; HT = hamstring tendon; PROMs = patient-reported outcome measures; QT = quadriceps tendon

References

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