CONVERSION OF A KNEE ARTHRODESIS TO A TOTAL KNEE ARTHROPLASTY WITH QUADRICEPSPLASTY: A CASE REPORT

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The patient signed a consent form to be the subject in the case report. No identifying information was used in the paper.

Background and Purpose: A knee arthrodesis is a fusion performed after failed knee surgery or trauma. This procedure provides stability and decreases pain, but often causes a decrease in quality of life. One modification is to convert an arthrodesis to a total knee arthroplasty. The evidence supporting this conversion is limited and there are many associated risks. The purpose of this case report is to describe the unusual procedure and demonstrate the impact of early post-operative physical therapy.

Case Description: The patient was a 48-year-old male who had a left total knee arthroplasty with takedown of a knee arthrodesis and quadricepsplasty. This operation followed multiple surgeries related to a traumatic fracture complicated by osteomyelitis. Physical therapy was initiated on postoperative day one. Interventions included precautions education, and assistive equipment and mobility training.

Outcomes: The patient’s mobility progressed from ambulating 6 feet with contact guard assistance to 100 feet modified independent. A modified Five Times Sit To Stand improved from 54:53 seconds on day two to 44:7 at discharge. Pain was consistently listed as 4 on a scale of 1 to 10. The patient was discharged home with home physical therapy on the morning of postoperative day 3.

Discussion: There is strong evidence supporting early and accelerated physical therapy following a total knee arthroplasty, but little evidence for post operative physical therapy following a conversion surgery as completed in this case. More evidence is needed on functional outcome measures used with younger adults in an acute setting to better gauge improvement in this population. This patient’s mobility improved to independent and pain remained the same. Improvement could be due to other acute care team treatments, medications, or normal healing. His hospital stay was consistent with patients undergoing only a total knee arthroplasty.