

Title of Presentation:

Revision Total Knee Arthroplasty of a Well-Fixed Component with Poor Range of Motion

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ABSTRACT:

Stiffness after primary total knee arthroplasty may be very difficult to treat. When the components are well fixed, some reports have described modest improvements in pain, function, and arc of motion. Between 2001 and 2004, 12 well-fixed, aseptic primary knee patients were revised for poor range of motion after index procedure. All of the knees flexed less than 70 degrees (average 52). The primary tka was performed on average 18 months prior to revision. All patients were evaluated prior to revision and no sign of infection was present. Surgical technique included complete revision tka with smaller components; offset stems to maximize flexion and extension gaps, and a near complete synovectomy with removal of scar tissue. A steroid was also injected into the tissues in an attempt to limit scar tissue formation. Patients were followed for a mean of 44 months (range, 33 to 60). Of the 12 patients, 10 were satisfied with the results of the procedure. The mean Knee Society pain score improved from 30 to 75 points, and the mean functional score improved from 40 to 80. The average flexion at one year after revision was 108 degrees, and 95 degrees at two years ($p < 0.05$). A manipulation was performed in two patients for recurrent stiffness. No patients required repeat surgery. Functional results after revision of well-fixed components for stiffness after primary total knee arthroplasty remains a challenge. The authors are encouraged by the results of the techniques utilized in the cohort of patients. Aggressive physical therapy may need to be performed for up to two years after revision, as this group of patients lost motion between the first and second year.

