

Oral Corticosteroid Use for Loss of Flexion After Primary Anterior Cruciate Ligament Reconstruction

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Purpose: Postoperative loss of motion after anterior cruciate ligament (ACL) reconstruction can lead to suboptimal outcomes. Short-term low-dose oral corticosteroids are an option for nonsurgical management of this condition. The purpose of this study is to retrospectively review a series of patients treated with a single Medrol Dosepak (MDP) (Pfizer, New York, NY) in the early postoperative period for the treatment of loss of flexion, focusing on range of motion, objective instrumented stability measurements, and complications. **Methods:** From September 1, 2003, through January 1, 2007, 28 (11%) of 252 patients who underwent primary ACL reconstruction were treated with an MDP at a mean of 6.1 weeks postoperatively (range, 4 to 12 weeks; SD, 1.4 weeks) for early postoperative loss of motion. Of these 28 patients, 4 were not included because of unavailable clinical records. One patient who underwent combined ACL and posterior cruciate ligament reconstruction with medial collateral ligament repair was excluded from the analysis. Range-of-motion and KT-1000 (MEDmetric, San Diego, CA) measurements were independently recorded by a single examiner preoperatively, at 6 weeks postoperatively, and again at final follow-up evaluation at a mean of 10.4 months (range, 4 to 24 months; SD, 4.3 months). **Results:** The mean flexion deficit compared with the normal, contralateral knee at the time of treatment with an MDP was 31.3° (range, -2° to 55°; SD, 14.8°). Patients treated with an MDP showed a significant improvement in flexion deficit (mean, 29.2°; range, 0° to 60°; SD, 17.1°) after MDP treatment ($P < .001$). KT-1000 side-to-side differences at final examination were 2 mm or less in 22 of 23 patients (mean, 1 mm; range, 0 to 4 mm; SD, 1 mm). Of the 23 patients treated with an MDP, 5 (22%) were considered failures because they required surgical intervention for persistent loss of motion, resulting in a reoperation rate for loss of motion after primary ACL reconstruction of 2.0% (5/252). There were no documented complications of MDP treatment. Specifically, no patients treated with an MDP had a postoperative infection develop. **Conclusions:** The use of oral corticosteroids, in the form of an MDP, was associated with a successful return of normal range of motion in 78% of patients with early postsurgical loss of flexion and near-normal extension after primary ACL reconstruction without any associated complications or decrease in objective instrumented stability measurements. **Level of Evidence:** Level IV, therapeutic case series. **Key Words:** Anterior cruciate ligament—Reconstruction—Loss of motion—Oral corticosteroid—Range of motion—KT-1000.

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After anterior cruciate ligament (ACL) reconstruction, regaining adequate knee range of motion (ROM) is critical to subjective and objective patient outcomes. Loss of motion after ACL reconstruction is a well-recognized complication, with a reported incidence ranging from 2% to as high as 59%.¹⁻³ A commonly encountered situation is a loss of full extension resulting from mechanical impingement of structures anterior to the graft. It has been suggested that when the postoperative knee has not been fully extended for a period of time, fibroproliferative nodules of granulation tissue may form and block terminal extension.^{4,5} Loss of flexion is associated with a diffuse scarring of the patellar tendon to the fat pad, formation of adhesions in the gutters, and capsular contractures likely due to postoperative capsulitis.⁶

