

## **Sulcus-Deepening Trochleoplasty and Medial Patellofemoral Ligament Reconstruction Provide Good Clinical Outcomes in Addressing Patellar Instability at Mid-Term Follow-Up**

Thomas E. Moran MD, Adam J. Tagliero MD, Elizabeth K. Driskill BS, David R. Diduch MD

### **Abstract**

**Purpose:** To update previously published clinical and radiographic outcomes of DeJour sulcus-deepening trochleoplasty and medial patellofemoral ligament reconstruction (MPFL-R), at mid-term follow-up, and monitor trends in patient reported outcome scores and satisfaction.

### **Methods:**

Interval follow-up was performed on a total of 67 patients (76 knees) with severe trochlear dysplasia and recurrent patellar instability who were prospectively enrolled and underwent DeJour sulcus-deepening trochleoplasty and MPFL-R combined with other patellar-stabilization procedures. Patients with less than 2-year follow-up were excluded. Evaluation of included patients involved radiographic analysis, physical examination, clinical follow-up, and collection of patient-reported outcome scores.

### **Results:**

37 patients (45 knees) were included in the current study, with mean final follow-up of 6.1 years postoperatively. Two interval re-operations were performed (arthroscopic lysis of adhesions; hardware removal and arthroscopic shaving chondroplasty). There remained no occurrences of re-operation for recurrent patellar instability. Compared to the prior follow up at minimum 2 years postoperatively (mean 3.6 years), the mean IKDC score improved from 79.1 to 82.0, the mean Kujala score improved from 86.5 to 89.3, and the mean VAS pain score improved from 2.5 to 1.9. Mean patient satisfaction rating changed from 9.1 to 9.3. Mean Kellgren–Lawrence grading of patellofemoral arthritis changed from 0.56 to 0.52 on sunrise radiographs at the most recent follow-up.

### **Conclusions:**

At mid-term follow-up, DeJour sulcus-deepening trochleoplasty and MPFL-R, combined with other patellar stabilization procedures, achieves durable resolution of patellar instability with maintained patient-reported outcome scores and satisfaction rates, and is without interval evidence of clinical or radiographic progression of patellofemoral arthritis.