Acute Cartilage Defects of the Knee Treated With Chondral Restoration Procedures and Patellofemoral Stabilisation

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Abstract: Background: The incidence of significant acute chondral injuries with patella dislocation is around 10-15%. It is accepted that chondral procedures should only be performed in the presence of joint stability Methods: Patients were identified from surgeon/hospital logs. Patient demographics, lesion size and location, surgical procedure, patient reported outcome measures, post-operative MR imaging, and complications were recorded. PROMs and patient satisfaction was obtained. Results: 20 knees (18 patients) were included. Mean age was 18.6 years (range; 11-39), and the mean follow-up was 16.6 months (range; 2-70). The defect locations were the lateral femoral condyle (9/20; 45%), patella (9/20; 45%), medial femoral condyle (1/20; 5%) and the trochlea (1/20; 5%). The mean defect size was 2.6cm2. Twelve knees were treated with cartilage fixation, 5 with microfracture, and 3 with OATS. At follow up, the overall mean Lysholm score was 77.4 (\pm 17.1), with no chondral regenerative procedure being statistically superior. There was no difference in Lysholm scores between those patients having acute medial patellofemoral ligament reconstruction versus medial soft tissue plication (p=0.59). Five (25%) knees required re-operation (one arthroscopic arthrolysis; one patella chondroplasty; two removal of loose bodies; one implant adjustment). Overall, 90% responded as being satisfied with surgery. Conclusion: Our aggressive pathway to identify and treat acute cartilage defects with early operative intervention and patella stabilisation has shown high rates of satisfaction and Lysholm scores. The full range of chondral restoration options should be considered by surgeons managing these patients.

Keywords: patella dislocation, chondral restoration, knee, patella stabilisation

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