Results: 26 patients (28 knees), mean age 33.7 (21-49) years were identified. 34 Outerbridge grade IV lesions on MFC, LFC, patella and trochlea were treated. Average cross-sectional area was 3.075 cm2; associated procedures included patellar realignment (TTO in 12, VMO advancement in 4), MPFL reconstruction (6/28), lateral release (10/28), ACL reconstruction (7/28) and partial meniscectomy (9/28). There were 11 re-operations, including 5 debridements of hypertrophic repair tissue and 2 microfractures of prior or new lesion. The mean MOCART score was 54.7 (range 20-85). 12/17 had complete fill, 10/17 had full border integration, 5/17 were isointense on T2. Sequential MRIs showed a progressive improvement in MOCART score with increasing time from surgery. Average pre-op Lysholm was 48.73 (29.17-68.76) and post-op 84.73 (70.84-100) at an average of 4.4 years postoperatively. This improvement in Lysholm scores was statistically significant, $p < 0.001$.

Conclusion: This is the first study that confirms good ingrowth and integration on MRI and excellent clinical outcomes following DeNovo NT cartilage transplantation in the knee. These results are maintained at a mid-term follow up of nearly 5 years.

Short and Mid-Term Outcomes of the Subchondroplasty Procedure for the Treatment of Bone Marrow in Patients with Knee Osteoarthritis
SS-73
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Introduction: Bone marrow edema (BME) is a negative prognostic factor for patients with knee osteoarthritis (KOA). BME is strongly associated with pain, decreased function, structural deterioration and rapid progression to total knee arthroplasty (TKA). Subchondroplasty (SCP) (Knee Creations, Zimmer, Warsaw, IN) directly addresses BME in the setting of KOA by injecting calcium phosphate cement into the area of BME.

Methods: A retrospective chart review with follow-up questionnaire was conducted on SCP patients in short-term and mid-term (>2 years). All patients failed conservative measures and were candidates for TKA. The questionnaire addressed symptoms before and after SCP, further interventions, the perception of and willingness to undergo SCP again.

Results: 133 of 143 subchondroplasty patients responded. The average patient was 57 years old (38-84 years) and 47% male. The average follow-up for short-term patients was 14.6 (4-22) months and for mid-term patients was 32.1 (24-43) months. Pain score decreased from 8.3 pre-op to 3.4 post-op in both groups. 35% in the short-term group required injections, increasing to 41% in the mid-term. The short-term group demonstrated satisfaction of 8.3 out

of 10, with 82% willing to undergo SCP again and 89% recommending SCP. In the mid-term group, satisfaction increased to 8.5 with 95% willing to undergo SCP again and 96% recommending the procedure. In all, 32 patients (25%) progressed to TKA (Figure 1) at an average of 17.8 months, with 22 (69%) of these occurring before 2 years.

Conclusion: SCP is an effective and well received treatment for patients with KOA and BME. In patients who failed conservative measures and were considering TKA, excellent results are seen at 2.5 years follow-up with only 25% of patients requiring TKA. Of all patients not requiring TKA, 93% would undergo SCP again and 98% would recommend it.

Not All Patients with Diabetes have the Same Risks: Perioperative Glycemic Control is Associated with Postoperative Infection Following Knee Arthroscopy
SS-74
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Introduction: The purposes of the present study were to evaluate the association of perioperative glycemic control as demonstrated by hemoglobin A1c (HbA1c) in patients with diabetes with the incidence of deep postoperative infection requiring a subsequent procedure following knee arthroscopy, and to calculate a threshold level of HbA1c above which the risk of postoperative infection was significantly increased.

Methods: A national administrative database was queried for patients who underwent knee arthroscopy from 2007-2014. Patients with procedures performed for infection and patients with a prior diagnosis of septic knee arthritis were excluded. Patients who met these criteria with diabetes mellitus and a perioperative HbA1c level checked within 3 months of surgery were identified; these patients were then stratified into six mutually exclusive groups based on their HbA1c. The incidence of deep infection requiring operative intervention within 1 year was identified. A receiver operating characteristic (ROC) analysis was performed to determine an optimal threshold value of the HbA1c above which the risk of postoperative infection was significantly increased.

Results: 11,384 patients were included, with an overall rate of infection of 0.37% (42 of 11,384). The rate of deep infection stratified by HbA1c group is pictured in Figure 1. The rate of infection ranged from a low of 0.24% in patients with HbA1c < 6 mg/dL up to 1.23% for patients with HbA1c > 10 mg/dL (P = < 0.001). The inflection point of the ROC curve corresponded to an HbA1c level between 8.0 and 9.0 mg/dL (P = 0.004, specificity = 73%, sensitivity = 50%).

Conclusion: The risk of postoperative infection requiring surgical intervention following knee arthroscopy in