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Purpose: Symptomatic femoroacetabular impingement can be successfully treated by open osteoplasty (Ganz et al). The morbidity of the open surgical dislocation includes extensive surgical dissection, heterotopic ossification, and trochanteric nonunion; however, they report a zero AVN rate. Recently, arthroscopic osteoplasty has grown in popularity in order to minimize the morbidity of the open procedure. No studies to date have critically evaluated the safety of this procedure looking specifically at the risk of vascular injury to the blood supply to the femoral head. The goal of this study was to evaluate the risk of vascular injury with arthroscopic osteoplasty of the femoral neck in a cadaveric model.

Methods: 8 fresh frozen cadaveric pelvi were utilized for arthroscopic osteoplasty of a predetermined 150° arc of resection along the anterior femoral head-neck junction. Postoperatively, the deep femoral arteries were cannulated, injected with black labeled PMC 780 rubber compound (Smooth-On, Inc., PA), and dissection was carried out. Local extravasation of neoprene-latex into the surrounding soft tissue prior to polymerization was defined as reproducible indicator to identify injury to the vascularity prior to injection.

Results: No vascular injury to the main blood supply of the femoral head was noted in all eight specimens. In 6 out of 8 specimens, we clearly visualized filling of the superior retinacula branches. In the remaining two specimens, there was still no evidence of any extravasation or injury. In one specimen, we could not identify the superior retinacula branches, which was consistent in that specimen on both the operated and non-operated side. In the other specimen, the terminal branches were identified, however there was incomplete filling of the vessels. In addition, filling of the inferior retinacula vessels was identified in all specimens. No injury to the main extracapsular branches of the medial or lateral femoral circumflex vessels was noted in any of the specimens.

Conclusion: These findings demonstrate that arthroscopic osteoplasty can be performed without disrupting the vascular supply to the femoral head. We feel that arthroscopic osteoplasty of the femoral neck is a viable and safe technique for the treatment of this entity.

Femoroacetabular Impingement: Early Results of Arthroscopic Management (SS-57). Carlos A. Guanche, MD

Purpose: The treatment of Femoroacetabular impingement (FAI) has thus far been documented extensively only with an extensile open approach. In the last

few years, the treatment has been expanded to include arthroscopic management in selected cases. In this study, a series of 24 patients with a diagnosis of FAI were treated arthroscopically and reviewed retrospectively.

Materials: Patients were identified retrospectively after having completed a non-arthritic hip score (NAHS) and a WOMAC scale prospectively. The average age of the 24 patients was 36 years (range 21-54). There were 18 men and 6 women in the study. The average follow-up was 16 months (range 8- 22). Radiographs were assessed for evidence of femoral or acetabular impingement as well as degenerative changes via the Tönnis classification.

Results: The average preoperative WOMAC and NAHS were 63 and 75, respectively. At six months follow-up the average scores were 97 and 95, respectively. 19 patients with evidence of FAI and Tönnis grade I degenerative disease did substantially better than the 5 who had more advanced grades. In 17 patients there anterosuperior acetabular cartilage delamination lesions. There were no surgical complications noted in the group and no development of avascular necrosis.

Conclusions: It appears that the arthroscopic management of patients with clinically evident FAI is certainly reasonable and provides good early results. Whether the outcomes will delay the onset of osteoarthritic changes or provide long-lasting relief of symptoms is the subject of further study.

Second-Look Arthroscopy of Chondral Lesions of the Acetabulum Treated with Arthroscopic Microfracture (SS-58). Marc J. Philippon, MD, Mara Schenker, BS, and Karen Briggs, MPH

Introduction: Microfracture has been shown to be an effective method to resurface full-thickness chondral lesions in the knee, however, limited studies have been reported in the hip. The purpose of this study was to determine the effectiveness of microfracture in covering chondral lesions of the acetabulum.

Methods: The microfracture procedure was performed arthroscopically in hips with grade 4 chondral lesions of the acetabulum. The surgeons estimated the size of the defects on the acetabulum at the time of the index procedure. Four hips had a subsequent arthroscopy. There were 4 males with an average age at the microfracture of 34 years. All four patients were professional athletes. At second look arthroscopy, percent fill of the defect was documented.

Results: At the time of the index procedure, the average size of the lesion was 200 mm² (range 160 to 240). The lesions were most commonly located in the