Paper #50

Do Focal Chondral Defects Lead to Worse Outcomes after Periacetabular Osteotomy?

Michael D. Hellman, MD, Jeffrey J. Nepple, MD, Rafael J. Sierra, MD, Cecilia Pascual Garrido, MD, Anchor Group, John C. Clohisy, MD

Notes

Introduction: Periacetabular osteotomy (PAO) is a common surgery to treat pre-arthritic acetabular dysplasia in the young adult. Tönnis grade has been linked to inferior outcomes after PAO. Hip arthroscopy (HA) at the time of PAO is becoming more common, allowing for a minimally invasive approach to address intra-articular pathology. With HA, we are finding and treating more focal chondral defects in hips with otherwise normal Tönnis grades, yet the impact of these lesions on clinical outcomes is unknown. Our objective was to assess the outcomes of patients who underwent HA/PAO with focal chondral defects and compare these outcomes with those of a control group who underwent HA/PAO and did not have focal chondral defect.

Methods: We performed a retrospective review of a multicenter prospectively collected database looking at patients that underwent HA/PAO. We included all hips with minimum 2-year follow-up, Tönnis grade<2 and a Beck chondromalacia stage 4-5. Twenty-eight hips met inclusion criteria. This group was age, sex, and BMI matched 1:1 with a control group with Tönnis grade<2 and Beck stage 0-2. Repeated-measures ANOVA test, included duration of follow-up as a covariate, was used to compare PROs. Cox-regression survival analysis was performed investing risk factors for failure.

Results: Average chondral defect size was 85.2mm2±SD38.7. Fifteen chondroplasties and 6 microfractures were performed. Post-operative center-edge angle was similar between groups (p=0.233). mHHS and HOOS were similar between groups (p=0.967, p=0.774). Tönnis grade did not significantly worsen and was similar between groups (p=0.773). Adjusting for age, labral damage, postoperative a-angle>55, and sex, showed that risk for failure was not higher with defect (HR-1.46 [95%CI, 0.303-7.05], p=.637).

Conclusions: We found that patients with a focal chondral defect did similar to a control group after HA/PAO. We believe that unloading the cartilage through reorientation of the pelvis helps protect these areas from failure.

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