

Hip Arthroscopy for Patients with Persistent Pain Following Periacetabular Osteotomy: No Significant Changes in Pre- and Postoperative Patient Reported Outcomes

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Introduction: Periacetabular osteotomy (PAO) remains the gold standard procedure for joint preservation in symptomatic developmental dysplasia of the hip. To date, the role for hip arthroscopy (HA) to address intra-articular pathology for patients with unsatisfactory outcomes following PAO remains controversial, with little data available to guide clinicians. The purpose of this study was to harness the Academic Network of Conservational Hip Outcomes Research (ANCHOR) database to provide guidance regarding outcomes for patients undergoing HA for persistent pain following PAO.

Methods: The ANCHOR database was reviewed for all PAOs performed 2008-2018 undergoing subsequent HA. Patient demographics, patient reported outcome scores, and total hip arthroplasty rates were determined to evaluate the utility of arthroscopy following PAO.

Results: 29 patients (5 males, 24 females, age: 23.4 ± 8.4 years) undergoing 32 PAOs (21 right, 11 left) with subsequent arthroscopy at 7 high-volume centers were evaluated. Mean preoperative lateral center edge angle (LCEA) was $17.5 \pm 9.3^\circ$ which was corrected to $32.0 \pm 4.7^\circ$ at the time of PAO. Patients were followed for a mean of 3.9 ± 2.0 years after PAO and underwent HA at a mean of 1.5 ± 1.1 years, with 23 (72%) undergoing concurrent hardware removal. Following arthroscopy, no patient reported outcome measure demonstrated a statistically significant postoperative difference. HOOS changed from 56.5 ± 18.5 preoperatively to 58.1 ± 20.5 postoperatively ($p=0.74$), WOMAC changed from 73.7 ± 18.5 to 69.7 ± 20.7 ($p=0.63$), UCLA score from 6.6 ± 2.8 to 6.0 ± 2.7 ($p=0.64$), and HHS from 63.6 ± 17.0 to 65.0 ± 19.8 ($p=0.91$). At final follow-up, one hip (3%) had converted to THA at 4.1 years following PAO and 3.0 years following HA.

Conclusions: In the largest available cohort of its kind, patients undergoing HA following PAO demonstrated no statistically significant postoperative change in four different scores. Given these findings, patients and surgeons alike should expect a guarded prognosis for persistent pain following PAO undergoing evaluation for revision arthroscopic management.