

## **Periportal Capsulotomy Demonstrates Improved Short-Term Patient-Reported Outcomes Compared to Interportal Capsulotomy in the Treatment of Female Femoroacetabular Impingement Syndrome Patients**

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### **INTRODUCTION:**

The periportal capsulotomy for hip arthroscopy minimizes iliofemoral ligament violation compared to T-cut and interportal capsulotomies, which may of particular importance in patients with hypermobility. The purpose of our study was to compare patient reported outcomes (PROs) and revision rates between females who underwent an interportal capsulotomy approach versus a periportal capsulotomy approach for the arthroscopic treatment of femoroacetabular impingement syndrome (FAIS).

### **METHODS:**

Consecutive female patients who underwent primary hip arthroscopy with complete capsular closure by a single surgeon for the treatment of FAIS between February 2020 and February of 2023, were included. An interportal capsulotomy was utilized in all patients prior to June of 2021, and periportal capsulotomies were utilized thereafter. PROs were collected preoperatively and at two-year minimum follow-up including pain at rest from 0-10, pain with activities of daily living (ADL) from 0-10, single assessment numeric evaluation (SANE) scores (range 0-100), and Patient-Reported Outcomes Measurement Information System – Physical Function (PROMIS-PF) scores in addition to if they required a revision surgery  $\leq 2$  years out from surgery. Continuous variables were first assessed for normality using the Shapiro-Wilk, then compared using two tailed independent T-tests. Categorical comparisons were made via chi-square test.

### **RESULTS:**

In total, 162 patients were included, 72 interportal and 90 periportal (83% PRO collection rate). Time to PRO collection date from surgery was longer in interportal ( $3.83 \pm 0.65$  years) vs periportal patients ( $2.65 \pm 0.55$  years) ( $p < 0.001$ ), but no other significant differences with regards to age, lateral center edge angle, or alpha angle were appreciated. Revision rate at  $< 2$  years was significantly higher in the interportal group (12/72; 16.7%) compared to the periportal group (6/90; 6.7%) ( $p = 0.044$ ). In those who did not require revisions, periportal patients had greater mean improvements in both SANE ( $30.9 \pm 21.0$  vs  $17.9 \pm 19.7$ ;  $p < 0.001$ ) and PROMIS-PF scores ( $14.0 \pm 9.5$  vs  $8.82 \pm 8.87$ ;  $p = 0.002$ ).

### **DISCUSSION AND CONCLUSION:**

In female patients that undergo primary hip arthroscopy for the treatment of FAIS, periportal capsulotomies provide greater improvements in subjective outcomes and a lower revision rate compared to the interportal capsulotomy at two-years postoperatively.