

Staged Bilateral Combined Hip Arthroscopy and Periacetabular Osteotomy: Index Surgery Patient-Reported Outcome Measures Predict Contralateral Surgery Results

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INTRODUCTION: Hip dysplasia has a high frequency of accompanying intra-articular abnormalities such as labral tears, bony impingement, and cartilage damage. The use of combined hip arthroscopy and periacetabular osteotomy (PAO) addresses both pathologies. The purpose of this investigation is to determine whether patient-reported outcome (PRO) scores after index procedure correlate with PRO scores for the contralateral hip in patients undergoing staged bilateral combined hip arthroscopy and PAO.

METHODS: Patients with symptomatic hip dysplasia who underwent staged bilateral combined hip arthroscopy and PAO were retrospectively reviewed. To determine whether time between surgery had a significant influence on correlations between modified Harris Hip Scores (MHHS), patients were split into 1 of 2 groups by time between surgeries: <12 months (early intervention) and >12 months (delayed intervention). The final MHHS for the index hip were compared to the final MHHS for the contralateral hip using Pearson's correlation coefficient. Independent t-tests were used for continuous variables statistical significance was set to a p-value <0.05.

RESULTS: A total of 59 patients (118 hips) were included in the final analysis. The average time between surgeries was 16.1 months (range, 5.7 to 64.4) and the average follow-up was 17.3 ± 13.8 months. There were 31 patients (62 hips) who had staged procedures less than 12 months apart (average, 8.8 months) and 28 patients (56 hips) who had staged procedures more than 12 months apart (average, 24.0 months). Overall, there was a moderate, positive correlation between final index MHHS and final contralateral MHHS, which was statistically significant ($r=0.413$, $p=0.023$). The strongest correlation between final MHHS of the index and contralateral hips was noted in patients who underwent staged bilateral procedures more than 12 months apart, however, this was not statistically significant ($r=0.506$, $p=0.065$). When comparing final MHHS between groups, there was no significant difference between the early intervention and delayed intervention cohorts, achieving scores of 86.3 ± 12.3 and 90.3 ± 12.4 , respectively ($p=0.15$).

DISCUSSION AND CONCLUSION: Patients who undergo staged bilateral combined hip arthroscopy and PAO experience acceptable MHHS in both hips. Results from the initial procedure can be used to predict outcomes on the contralateral side.