Periacetabular Osteotomy with or without Arthroscopy: Early results of A Randomized Controlled Trial

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INTRODUCTION: It has been suggested that labral tears may be responsible for residual symptoms of hip dysplasia after periacetabular osteotomy (PAO). However, it is still uncertain whether addressing these pathologies with concomitant hip arthroscopy at the time of PAO will improve patient reported outcomes measures (PROMs).

METHODS: A prospective unblinded multicenter randomized controlled trial was conducted. Patients were included if they were above 16 years old and diagnosed with symptomatic acetabular dysplasia/hip instability to be treated with PAO. 163 Patients were randomized to receive either PAO alone or PAO with hip arthroscopy. The included patients were 87% female and 13% male with an average age of 26.86 and average BMI of 24.89. PROMs (iHot-33 and PROMIS) were collected pre-operatively and at 6 months and 1 year post-operatively. An independent sample t-test was used to test between group differences in outcome scores using a level of significance of p=0.05.

RESULTS: Eighty-four (51.5%) Patients received PAO with a hip arthroscopy while 79 (48.5%) patients received PAO alone. At Baseline, there were no differences between groups (iHOT-33 p=0.19, PROMIS p=0.16). At 6 months, of 106 eligible patients, both groups showed significant improvement in PROMs, but there were no differences between the groups (iHOT-33 p=0.80, PROMIS p=0.09). At 1 year, of 94 eligible patients, both groups again showed improvement from baseline with no differences between groups (iHOT-33 p=0.94, PROMIS p=0.28). Neither group showed significant improvements from 6 months to 1 year.

DISCUSSION AND CONCLUSION: These preliminary results demonstrate no statistical difference in patient reported outcomes at 6 months or 1 year between patients who receive PAO alone compared to patients who receive a PAO with a hip arthroscopy. Patients in both groups report significant improvement in outcomes after 6 months, but further improvements do not appear to be significant at 1 year.