

Does hip arthroscopy improve the clinical outcome of a Periacetabular Osteotomy for the treatment of Hip Dysplasia?

A Multi-Center Randomized Clinical Trial.

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A peri-acetabular osteotomy (PAO) is often sufficient to treat the symptoms and improve quality of life for symptomatic hip dysplasia. However, acetabular cartilage/labral pathologies are very commonly present and there is a lack of evidence examining the benefits of the adjunct arthroscopy to treat these. The goal of this study is to compare the clinical outcome of patients undergoing PAO with and without arthroscopy with primary end-point being the International Hip Outcome Tool-33 (iHOT-33) at one year.

In a multi-center study, two hundred and three patients with symptomatic hip dysplasia were randomized: 99 patients undergoing an isolated PAO (mean age 27 years (16-44); mean BMI of 25.1 (18.3-37.2); 83% females) and 104 patients undergoing PAO with an arthroscopy [mean age 27 years (16-49); Mean BMI of 25.1 (17.5-25.1); 88% females].

At a mean followup of 2.3 years (range 1-5 years), all patients exhibited significant improvements in their functional score with no significant differences between PAO plus arthroscopy versus PAO alone at 12 months post-surgery on all scores: pre-op iHot-33 score 31.2 (SD 16.0) vs. 36.4 (SD 15.9) and 12 months post-operative was 78.5 (SD 22.7) vs. 77.1 (SD 20.9)]. Pre-operative HOOS score was [49.9 (SD 16.9) vs. 54.2 (SD 16.9)] and 24 months post-operative was [86.8 (SD 14.1) vs. 83.3 (SD 16.0)]. Mean Pre-operative PROMIS score was [32.3 (SD 7.1) vs. 34.1(SD 5.8)] and 24 months post-operative was [38.7 (SD 6.3) vs. 38.5 (SD 7.0)]. Four patients having PAO without arthroscopy necessitated an arthroscopy later to resolve persistent symptoms and 1 patient from the PAO plus arthroscopy necessitated an additional arthroscopy.

This RCT has failed to show any significant clinical benefit in performing hip arthroscopy at the time of the PAO at one-year followup. Longer followup will be required to determine if hip arthroscopy provides added value to a PAO for symptomatic hip dysplasia.