

# Periacetabular Osteotomy for the Treatment of Symptomatic Acetabular Dysplasia in Patients with and without Labral Tears

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## **Abstract**

**Background:** Periacetabular osteotomy has been established as an effective treatment for symptomatic acetabular dysplasia. However, dysplasia is frequently associated with intra-articular pathologies such as labral tears. The purpose of the present study was to evaluate the clinical outcomes and radiographic correction of periacetabular osteotomy for acetabular dysplasia in patients with labral tears compared with those in patients without labral tears.

**Methods:** We retrospectively reviewed thirty-six hips in thirty-six patients who had undergone curved periacetabular osteotomy combined with arthroscopy of the hip to assess labral pathologies between January 2011 and January 2012. Twenty-four hips in twenty-four patients who had acetabular dysplasia with labral tears (the labral tear group) were compared with twelve hips in twelve patients who had acetabular dysplasia without labral tears (the non-labral tear group). We compared the two groups based on the Harris hip score, radiographic correction, and reoperations.

**Results:** The mean Harris hip score improved from 76.8 points preoperatively to 90.3 points postoperatively in the labral tear group and from 75.5 points preoperatively to 92.8 points postoperatively in the non-labral tear group. There were no significant differences in the radiographic parameters between the two groups pre- or postoperatively. The Tönnis grades improved in two hips and progressed in two hips in the labral tear group and improved in two hips and progressed in one hip in the non-labral tear group. There were two reoperations for labral tears in the labral tear group, compared with no reoperation in the non-labral tear group.

**Conclusions:** Periacetabular osteotomy for the treatment of symptomatic acetabular dysplasia with or without labral tear provides equivalent short-term pain relief and functional outcomes. Additionally, we did not demonstrate a statistically increased risk of progression of osteoarthritis and reoperations in association with labral tears.

**Key words:** Acetabular dysplasia, Periacetabular osteotomy, Arthroscopy, Labral tear