

Complication Rates of Combined Hip Arthroscopy and Periacetabular Osteotomy for the Treatment of Acetabular Dysplasia: Review of 142 Consecutive Cases

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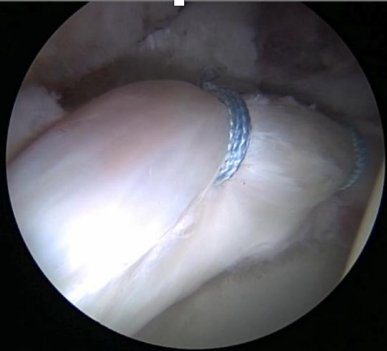
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Background

- Hip arthroscopy is increasingly utilized as an adjunct to periacetabular osteotomy (PAO) in patients with symptomatic acetabular dysplasia.
- Hip arthroscopy allows for precise treatment of intra-articular chondrolabral pathology not easily accessed during PAO.
- However, the addition of hip arthroscopy to the PAO increased surgical time and fluid extravasation into the soft tissues that could increase complication rates.
- Major complication rates of PAO alone have been shown to be 5.9%.

Purpose

- The purpose of our current study was to determine the rates of complication of combined hip arthroscopy and PAO in a cohort of consecutive cases at two institutions.

Methods

- A prospective hip preservation database was reviewed to identify all patients undergoing combined hip arthroscopy and PAO during the seven year study period.
- In all cases, hip arthroscopy was performed for treatment of intra-articular chondrolabral pathology. PAO was then performed in the same setting, including an arthrotomy for performing a proximal femoral osteoplasty in the open exposure.

Methods

- Retrospective review of inpatient and outpatient medical records was performed to identify complications.
- Complications were graded according to the modified Dindo-Clavien complication and Grade 3 or 4 complications (indicating need for associated medical or surgical treatment) considered in the current study.

Results

- 142 hips (134 patients) underwent combined hip arthroscopy and PAO
 - 117 females (87.3%) and 17 males (12.7%)
 - Mean age of 27.6 years.
 - Median duration of surgery was 209 minutes
 - Median estimated blood loss of 350 mL.

Results

- Labral repair was performed in 95 hips (66.9%), while labral debridement was performed in 7 additional hips (4.9%).
- Acetabular chondroplasty was performed in 44 hips (31.0%)
- Debridement of the ligamentum teres was performed in 25 hips (17.6%).

Results

- Grade 3 complications occurred in 2.8% of patients (n=4), while no Grade 4 complications occurred.
- Grade 3 complications included deep infection (n=1), hematoma requiring exploration (n=1), symptomatic heterotopic ossification requiring excision (n=1), and deep venous thrombosis (n=1).

Summary

- Major complication rates of combined hip arthroscopy and PAO are acceptable (2.8%) and similar to previously reported complication rates of PAO alone.
- Further research is needed to better define the role of combined hip arthroscopy and PAO in the outcomes of treatment of acetabular dysplasia.