Midterm Outcomes of Concurrent Hip Arthroscopy and Periacetabular Osteotomy for the Treatment of Hip Dysplasia with Associated Intra-Articular Pathology

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INTRODUCTION

- Concurrent HS and PAO (HS/PAO) is increasingly utilized for the treatment of symptomatic acetabular dysplasia with associated intra-articular pathology.
- Yet, the indications and outcomes of combined treatments remain to be better defined

OBJECTIVE

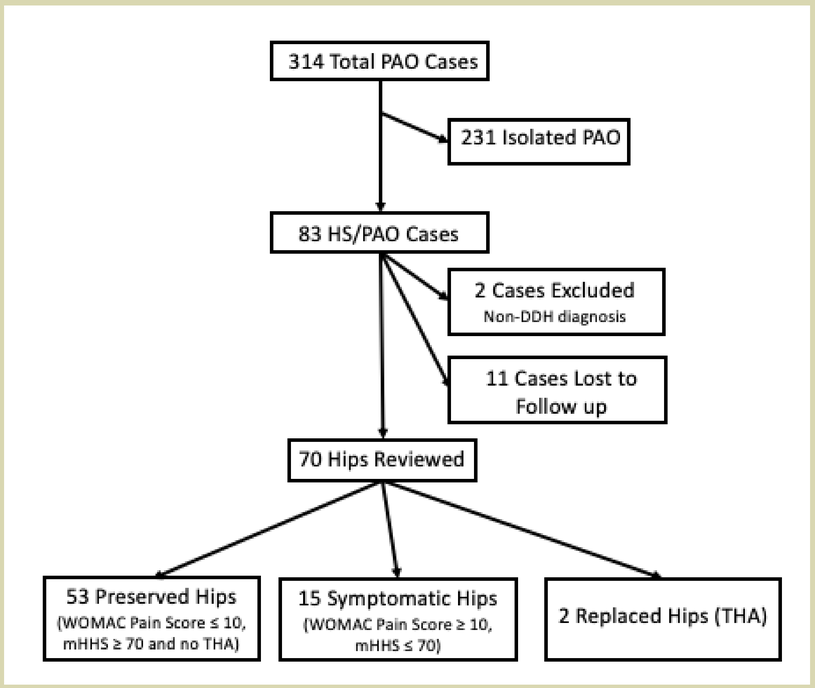
In this study, we assessed midterm outcomes of concurrent HS and PAO (HS/PAO) for the treatment of symptomatic acetabular dysplasia with associated intra-articular pathology.

METHODS

- We performed a retrospective review of the outcomes of concurrent HS/PAO cases at a minimum of 4 years postoperatively in a prospectively collected institutional hip preservation database.
- From November 2005 to December 2012, 83 hips in 79 patients underwent combined HS/PAO for acetabular dysplasia.
- Twelve hips were lost to follow-up, leaving 71 hips (85.5%) for analysis at mean 6.6-year follow-up (range 4 -11 years).
- Hips were classified as failures if they underwent conversion to THA or remained symptomatic (mHHS <70 or WOMAC pain subscore > 10).
- Additionally, revision surgeries were noted.
- Major complications were recorded and graded by the Clavien-Dindo classification.
- Regression analyses were performed to identify the interaction between patient factors, radiographic measures, and surgical details with outcome.

RESULTS

- **A total of 17 hips (20.5%) were classified as failures including two hips (2.4%) had undergone THA and an additional 15 hips (18.1%) were deemed symptomatic.**



Study	Cohort Size	Procedure	Mean Follow Up	Mean Age	Baseline mHHS (mean)	Final mHHS (mean)
Current	70	HS/PAO	6.6 years	29 years	55.1	83.4
Kim et al [21]	43	HS/RAO	6.2 years	40 years	72	94
Domb et al [22]	17	HS/PAO	2.4 years	24 years	64	84
Ricciardi et al [23]	24	HS/PAO	1 year	27 years	58	83
Lerch et al [7]	75	PAO	29 years	29 years	83	85
Dahl et al [51]	52*	PAO	7 years	31 years*	83*	84*
Wells et al [6]	154	PAO	10.3 years	26 years	66	86
Ricciardi et al [23]	58	PAO	1 year	23 years	61	84
Peters et al [52]	83	PAO	3.8 years	28 years	54	87

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RESULTS

- Of the 54 hips (76.1%) not classified as failures, the mean mHHS 92.1 ± 8.8, UCLA activity score 7.8 ± 2.1, and WOMAC pain subscore 1.8 ± 2.4.
- In univariate analysis, no patient factors, pre- or post-operative radiographic metrics, or intra-operative findings or procedures were associated with failure.
- There were 5 (7%) major complications (Clavien-Dindo Grade III or IV) .
- A total of 5 patients underwent repeat surgery for recurrent symptoms (4 hip arthroscopy (4.8%), 1 open psoas release with ramus osteoplasty) during the follow up period with resolution of symptoms following repeat surgery.

CONCLUSIONS

- This study demonstrates that concurrent hip arthroscopy and periacetabular osteotomy is associated with good clinical outcomes and an acceptable complication profile at midterm follow-up.