



Clinical Outcomes of Iliopsoas Release and Capsular Plication in Patients with Acetabular Dysplasia: Restoring the Static Stabilizers May Obviate the Need for a Pathologic Dynamic Stabilizer

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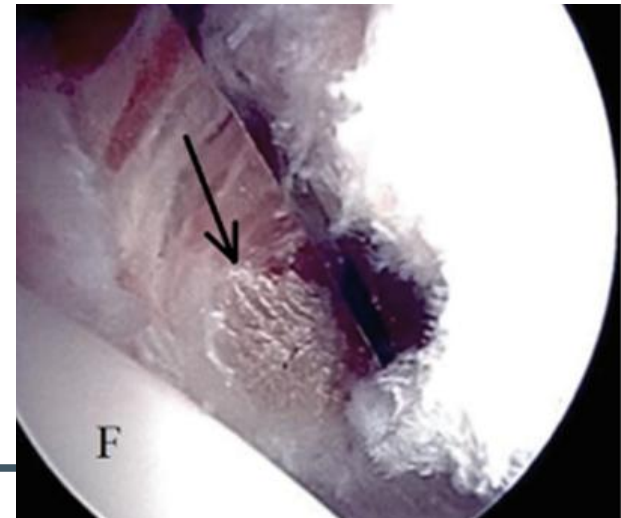
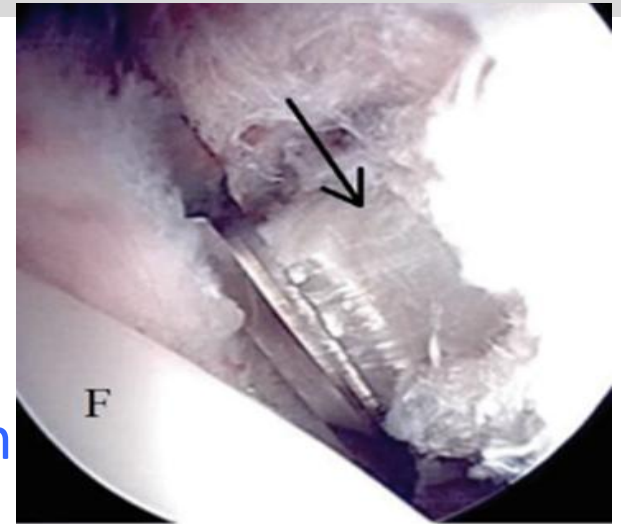
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Disclosures

- American Hip Institute^a, AANA Learning Center Committee^a, Amplitude^c, Arthrex^{b,c,d}, ATI^b, Breg^b, DJO Global^d, Orthomerica^d, Pacira^{b,c}, Stryker^{b,c}
- a – boardmember; b – research support; c – consulting; d – royalty; e - stockholder

Background

- Iliopsoas hypothesized to be a secondary stabilizer of the hip secondary to it's location
- Patients with increased femoral neck anteversion demonstrated not to improve in PROs as much as those with less anteversion
 - Hypothesized to be secondary to it's stabilizing role in the hip with anteverted femurs
- This has led to caution when performing iliopsoas lengthening in patients with decreased LCEA



Purpose

- To investigate if patients with hip snapping and a LCEA <25 can be successfully treated with iliopsoas fractional lengthening labral treatment with concomitant capsular plication as measured by validated patient reported outcomes (PROs) and monitoring progression of Tonnis grade at latest follow-up

Methods

- Data prospectively collected and retrospectively reviewed July 2009-December 2011
- Inclusion:
 - Hip arthroscopy > 2 year f/u eligible
 - Iliopsoas + Capsular plication conducted
 - LCEA of 25 or less
- Exclusion:
 - Inflammatory arthritis
 - Age >50
 - Tönnis 2 or higher
 - Pediatric hip disorder
 - AVN
 - Previous hip surgery

Measures

- Patient reported outcomes
 - mHHS, HOS-ADL, HOS-SSS, NAHS
- Patient satisfaction
 - Measured (1-10)
- Pain
 - VAS (1-10)
- Progression of Tönnis grade

Preoperative

- All patients noted to have painful preoperative hip snapping on exam
- Labral tear/impingement
 - +hip impingement test
 - MRI noted labral tear
- Failed > 3 months of conservative treatment (NSAIDs, activity modification, physical therapy)
- Radiographic measures (Tönnis/LCEA) calculated on Supine AP pelvis

Procedures

- Every patient had central compartment fractional lengthening of the iliopsoas
- Capsular plication

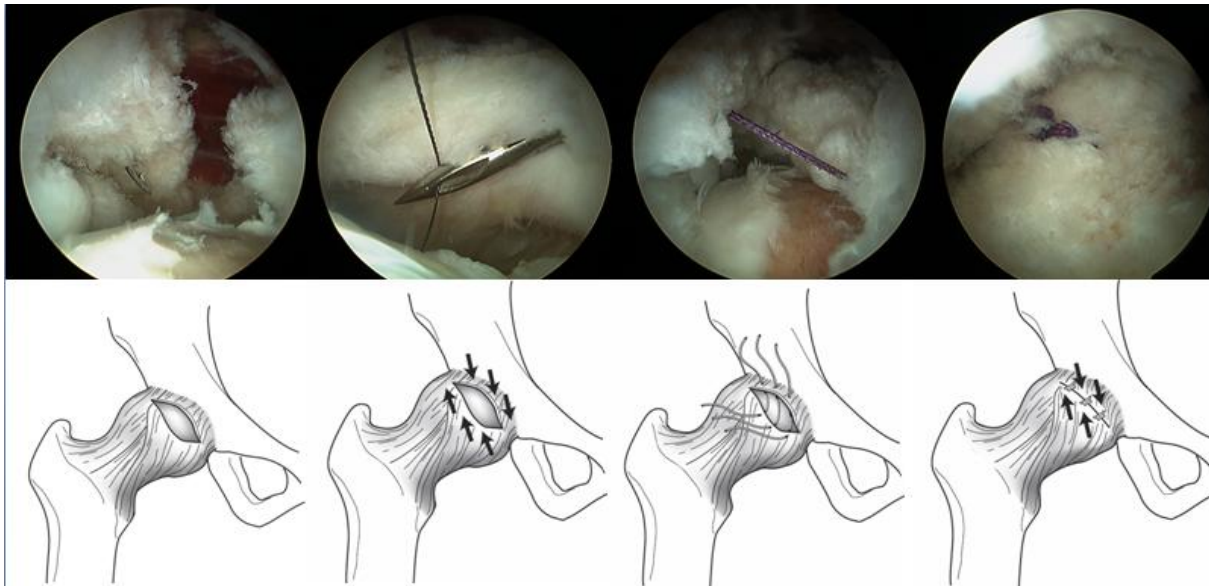
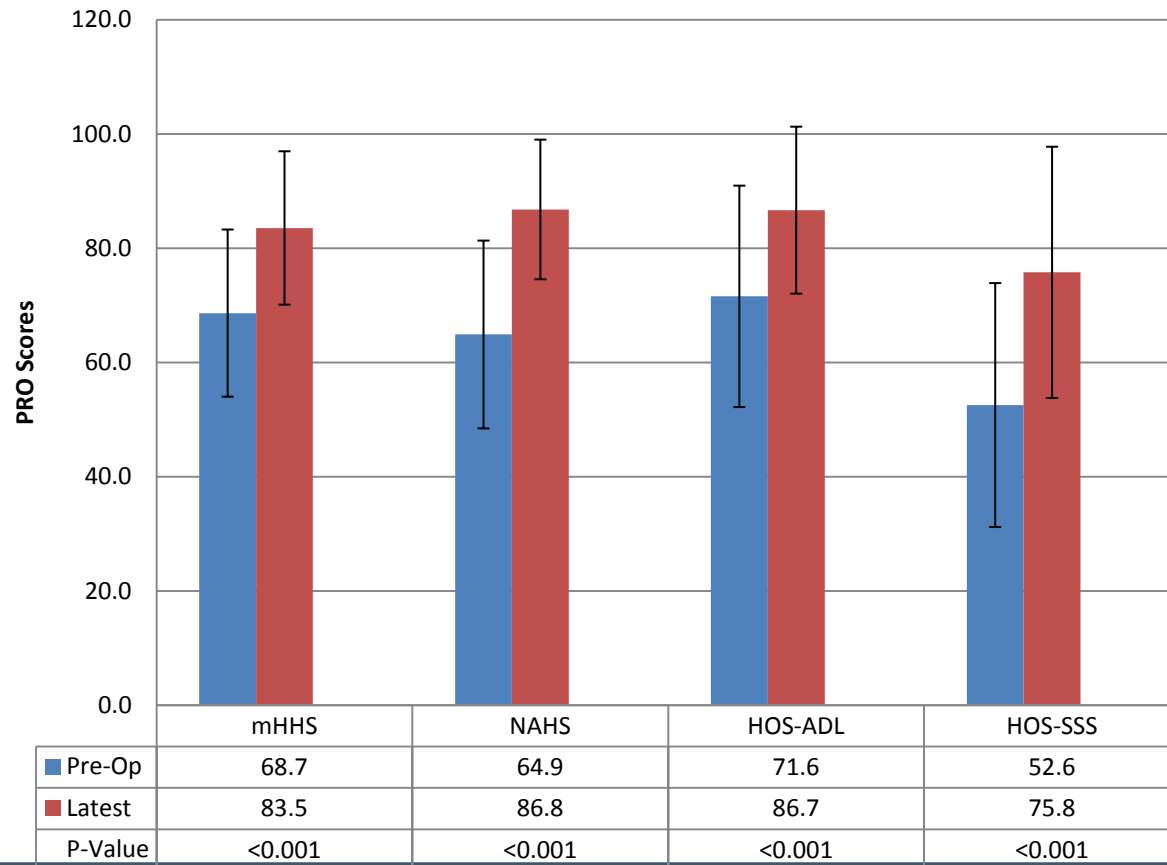


Table 1: Demographics	
Patients	32
Gender	2 M, 30 F
Laterality	18 R, 14 L
Age at surgery (years)	25.3 (14.9 – 42.1)
Follow-up time (months)	38.4 (23.7 – 72.5)
Revisions (percentage)	4 (12.5%)
Average time to revision (years)	17.8 (7.1-28.4)

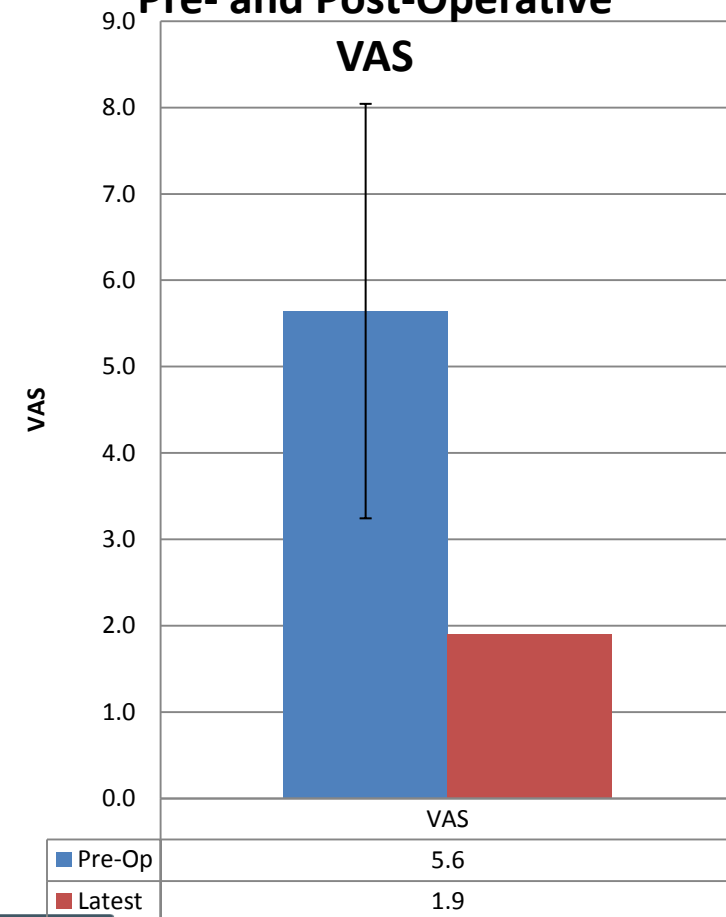
Table 2: Procedures	n	%
Acetabuloplasty	16	50.0%
Femoroplasty	16	50.0%
Microfracture		
Acetabular	2	6.3%
Femoral Head	0	0.0%
Ligamentum Teres		
Debridement	17	53.1%
Labral treatment		
Debridement	7	22%
Repair	23	72%
Capsular Plication	32	100.0%
Iliopsoas Fractional Lengthening	32	100.0%

PROs/VAS

Pre- and Post-Operative PRO Scores



Pre- and Post-Operative VAS



Results

- Patient satisfaction: 8.0
- No patient complained of postoperative snapping
- 4 revision arthroscopies
 - All traumatic re-tears
- Tönnis grade
 - 24 patients had > 2 year radiographic f/u
 - 1/24 advanced one Tönnis grade (0-1)

Limitations

- Only radiographic follow-up of 2 years
 - If micro-instability is occurring may take longer than 2 years to demonstrate radiographic changes.
- Only 24/32 had radiographic f/u at 2 years
- Small number, and single surgeon's experience

Conclusions

- LCEA < 25 degrees, with associated painful iliopsoas snapping, can be successfully treated by addressing intra-articular pathology and performing intra-capsular fractional lengthening of the iliopsoas tendon with concomitant capsular plication
- No significant progression of osteoarthritis noted in the short term