

Rehabilitation After Hip Arthroscopy for Femoroacetabular Impingement Syndrome : Short-term Outcomes

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Background

Though numerous protocols have been described in the literature, there is no current evidence-based consensus regarding the postoperative management of patients undergoing hip arthroscopy.

Rehabilitation for individuals undergoing hip arthroscopy with labral repair to address femoroacetabular impingement Syndrome (FAIS) should be based on the known healing properties of osseous tissues and any other tissues affected by the surgical procedure.



Objectives

The purpose of this study was to examine the progression of clinical outcomes 3, 6 and 12 months after hip arthroscopy with labral repair for FAIS, to determine the effectiveness of physical therapy which based on functional anatomy.



Methods

39 consecutive patients with FAIS underwent hip arthroscopy for the first time and were eligible for inclusion.

Exclusion criteria

- a) Transferred to another hospital within 2 months (n=17)
- b) Shelf operation was performed (n=8)
- c) Incomplete data (n=5)

From January 2016 to December 2018, 9 patients and 10 hips [5 females (median age 52, range 14-63) and 2 males (median age 47.5, range 21-69)] underwent hip arthroscopy and labral repair, by the same experienced surgeon.



Methods

Function and pain were evaluated using modified Harris Hip Score (mHHS), nonarthritic hip score (NAHS) , hip flexion angle (HFA) and visual analogue scale (VAS) pre-operatively and post-operatively at 3, 6, and 12 months.

Statistical analysis was performed using SPSS version 25. The data were analysed by Freidman's test for mHHS, NAHS, VAS and HFA. The significance level was set at 0.05, and all differences with p values below this level were considered to be statistically significant.



Physical Therapy

The patients were provided with a standardised rehabilitation manual , based upon the rehabilitation progression model described by Stalzer et al. (Clin Sports Med 25(2), 2006)

In addition, the hip peri-muscular muscles were manually treated to encourage individual and repeated contractions, especially during the 4weeks postoperatively.



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Repeated muscle contraction (RMC)



Manual therapy for Rectus Femoris muscle



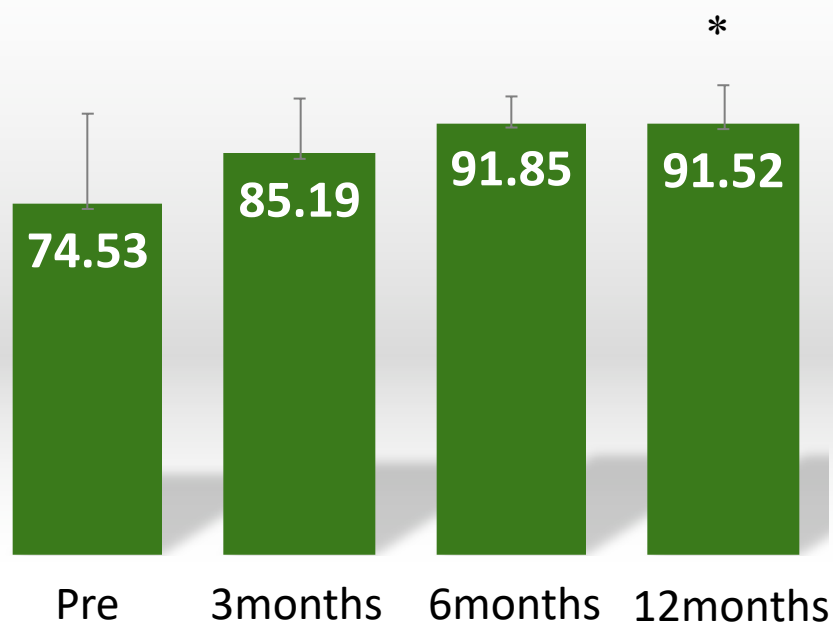
Manual therapy for Obturator Exterus muscle



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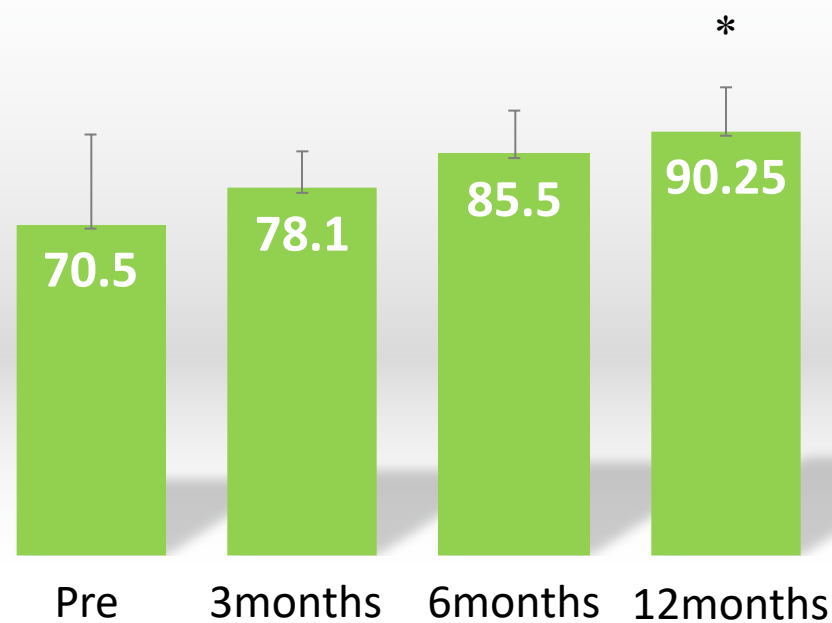
Results

mHHS



Asterisks denotes a statistically difference in mHHS from pre-surgery to this time point

NAHS



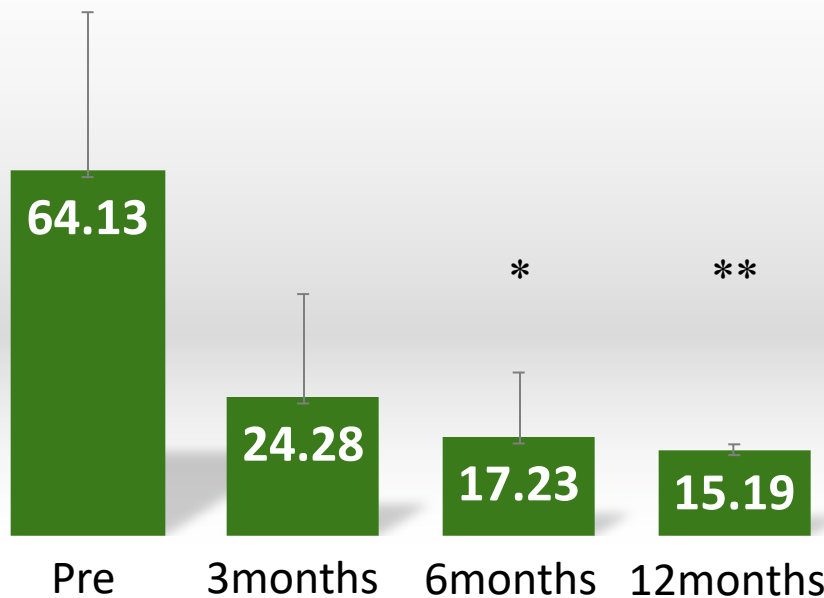
Asterisks denotes a statistically difference in NAHS from pre-surgery to this time point



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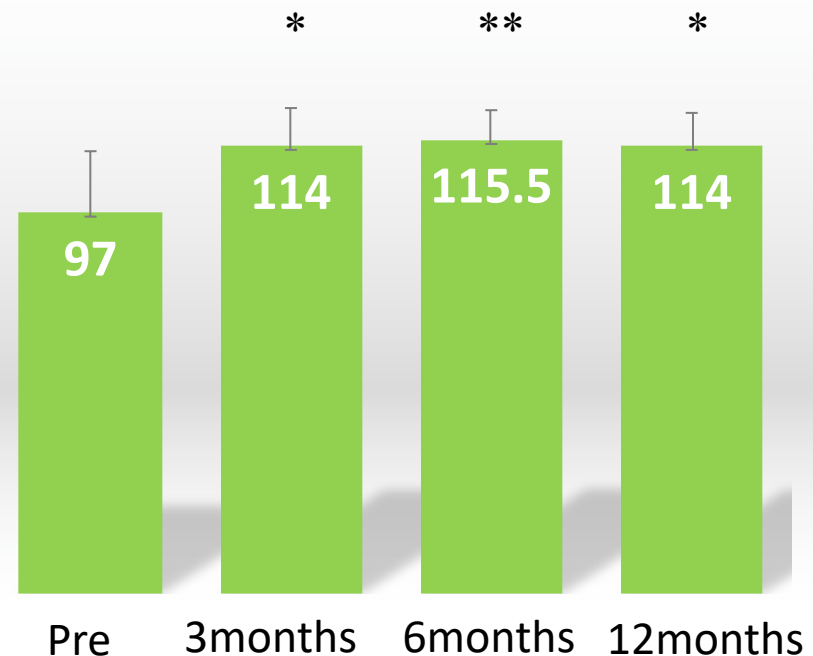
Results

VAS (mm)



Asterisks denotes a statistically difference in VSA from pre-surgery to this time point

HFA (°)



Asterisks denotes a statistically difference in HFA from pre-surgery to this time point



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Conclusions

The present study shows that function and pain improve significantly within the first year after surgery.

Significant improvements from pre-operatively to 3 months and again from 3 to 6 months were seen for both ROM and pain.

By 4 weeks post surgery, RMC of all musculature in the hip joint region should be initiated and progressed as tolerated. The pinching sensation may be decreased with the use of RMC and be improved in pain and function.

