Weight Bearing after Hip Arthroscopy for FAI

Ira Bachar Avnieli, Matias Vidra, Shai Factor, Ran Atzmon, Yonathan Persitz, Nathan Safran, Ehud Rath, Eyal Amar

Orthopedic Department Barzilai Medical Center
Minimally invasive surgery, Orthopedic division
Tel Aviv Souraski medical center
Disclosures

I, Prof. Ehud Rath, *DO NOT* have a financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of
Survey of hip arthroscopy specialists – most allow partial weight bearing (max. 20 lbs.) for labral repair/reconstruction


No consensus – several utilize immediate WBAT protocols

- Grzybowski JS, Rehabilitation following hip arthroscopy – a systematic review. 2015
Axial loads transmitted through labrum in non-dysplastic hips – only 1-2% of total loads.

Henak CR, Role of the acetabular labrum in load support across the hip joint. Journal of Biomechanics, 2011

Simulated WB in cadavers with labral suture anchor repair – sutures remained intact

Koh JL, Evaluation of repair of the hip labrum under simulated full weight-bearing. HIP Int. 2017

Anchors indicated for hip arthroscopy showed minimal displacement under cyclic loading

Risk factors for revision

- Risk factors for revision surgery in FAI –
  - Under-correction of bony pathology imposes a risk
  - Type of labral management (repair vs. debridement) – no effect


- Main factor in labral suture failure – residual bony impingement.


Sardana V, Revision Hip Arthroscopy Indications and Outcomes. Arthroscopy. 2015
Study purpose

- Comparing outcomes of immediate WBAT and NWB rehabilitation protocols after arthroscopy for FAI
- 2 year minimal follow-up, January 2011 – June 2016

**Inclusion:**
- > 18 y.o
- Evidence of FAI and/or labral tears
- Cam / pincer / sub-spinal impingement

**Exclusion:**
- Dysplasia
- Femoral head fx.
- Microfracture
- Congenital or developmental hip disease
- Extra-articular pathology
- Concomitant pathologies impeding weight-bearing
- Work compensation claims
Study population

- Until September-2013 – all patients were assigned NWB protocols (N=69)
- From September 2013 until completion – all patients assigned immediate WBAT (N=64)
Surgical Technique

- Single surgeon
- Anterolateral + modified anterior portals
- Capsulotomy between portals
- Suture anchor fixation of labral tears (2.3 mm Osteoraptor, Smith&Nephew)
- Osteoplasty – head-neck junction / acetabular over-coverage / AIIS / combination
WB and Rehabilitation

- **NWB group** – NWB for 3 weeks, gradual return to full WB
- **WBAT group** – Immediate WBAT

Rehabilitation protocols –
  - Phase 1-4
  - Return to full ROM – 2-6 weeks
  - Return to sports (without pivoting) – 9 weeks – 4 months
PROM’s greatly improved following surgery

No significant difference between groups
Subjective Measures

- Satisfaction is high (≈84%)
- No significant difference between groups
Conclusions

- After a 2-year minimum follow-up after hip arthroscopy for FAI:

  PROM’s and satisfactory rates with immediate WB do not differ from strict NWB protocols.

- Revising WB restrictions may allow a more comfortable rehabilitation process.
References


