

Butt Pain I

Endoscopic Approach to Partial Hamstring Tears


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Overview

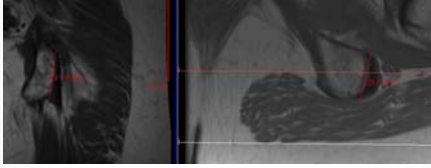
- Anatomy
- Diagnosis
 - History
 - Exam
 - Imaging
- Endoscopic Repair
- Rehab
- Outcomes

Anatomy

- Split ST-B/SM.
 - Semitendinosus and the long head of the biceps femoris have a conjoint origin from the posteromedial (inferior?) aspect of the ischial tuberosity.
 - The semimembranosus arises from a long flat tendon at the posterolateral (proximal?) aspect of the ischial tuberosity, lateral to the conjoint tendon of the biceps femoris and semitendinosus.
- Common origin on lateral border of ischium.
 - Semitendinosus, biceps femoris, semimembranosus form a common tendon 5/6 times.
 - Neuschwander, Benke, Gerhart. Arthroscopy. August 2015



Anatomy



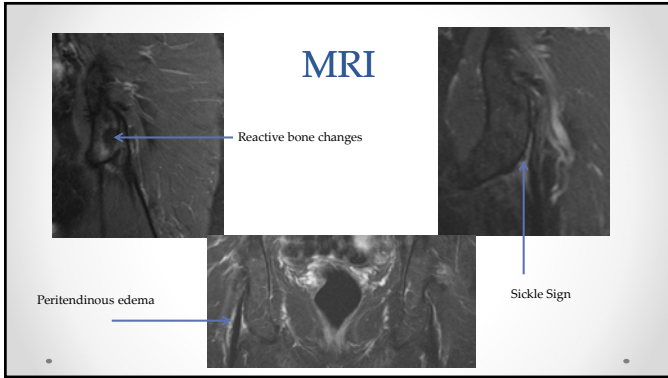
History

- Females > Males
- 40's-70's
- Insidious onset > acute injury.
- Activities: Often former/active runners. Occasional yoga.
- Location of pain.
 - Localized to ischium.
 - Can radiate down hamstring to popliteal fossa, not below knee.
- Pain with:
 - Sitting
 - Walking, especially fast paced.
 - Driving car (right side)

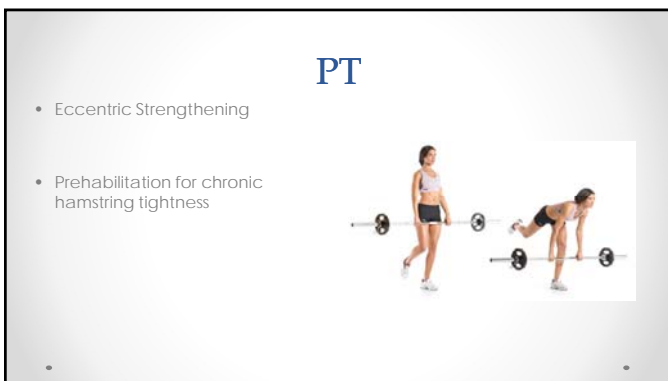
Exam

- Routine hip exam.
 - ROM, FADIR, FABER
- Point tender over ischium and hamstring tendon
 - Have patient point to pain.
- Pain with resisted knee flexion
- Heel drag test










PRP

- Some limited data on efficacy in hamstring.
- Other tendinopathies
 - Lateral epicondylitis
 - Patella tendonitis
 - Rotator cuff



Endoscopic Repair

Endoscopic Transtendinous Repair for Partial-Thickness Proximal Hamstring Tendon Tears

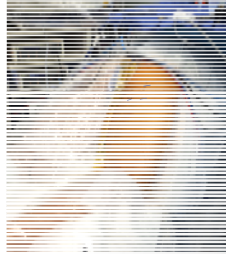
Timothy J. Jackson, M.D., Anthony Trenga, B.A., Dror Lindner, M.D., Youseff El-Bitar, M.D., and Benjamin G. Domb, M.D.

Indications

- Failure of conservative measures with significant pain disrupting daily activities or athletic pursuits
 - 6 months
- Imaging, history and exam consistent
 - Asymptomatic tears

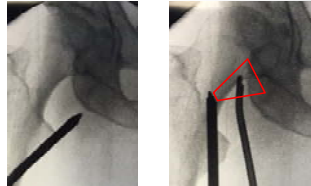
Endoscopic Repair Transtendinous Approach

- Prone position
- Jackson table
 - Hips slightly flexed for instrument maneuverability.
 - Fluoro easily under pelvis.
- Mark gluteal crease prior to prep
 - Optional



Access

- Posterolateral portal first
 - Aimed at ischium, away from sciatic nerve.
- Fluoro guided.
 - Tactile feedback.
- Establish deep gluteal space
 - HS tendon as lighthouse
- 70 degree scope



Transtendinous Approach

- Longitudinal split in tendon.
- Elevation of remaining tendon.
- Burr bone for bony healing bed.
- Suture anchor repair.
- Suture lasso and shuttle relay technique.

Video



Pearls

- Pump pressure 40-50 mm Hg
 - High pump pressures will swell glut max quickly.
- Patience with establishing the deep gluteal space.
 - Early blunt dissection. Ischium/hamstring tendon as lighthouse.
- Fully threaded cannula
 - 9cm. 11 cm too long for scope.
- Identification of sciatic nerve

Rehab

- TTWB for 4 weeks
- PT
 - Start 1st week
 - GT on crutches
 - Isometrics
 - Positions to avoid
 - ST mobilization
- Hip Brace

Outcomes

Am J Sports Med. 2013 Jun;41(6):1363-71. doi: 10.1177/0363546513502717. Epub 2013 Apr 10.
Boorman KF,1, Cohen SB, Stralitz J2

Operative management of partial-thickness tears of the proximal hamstring muscles in athletes.

- 17 pts, 3 male, 14 female
- Open repair
- LEFS
 - Postop 73.3 ± 9.9
- Marx score – 6.5 (0-16)
- No revisions

Anatomic surgical treatment of partial proximal hamstring avulsions can lead to satisfactory functional outcomes, a high rate of return to athletic activity, and low complication rate. This procedure should be reserved for patients who have failed an extended course of nonoperative treatment, and the proximity of the sciatic nerve mandates a careful assessment of the risk-benefit ratio before surgery is undertaken.

Outcomes Endoscopic

- N = 7, primary endoscopic partial tendon tear
 - Excluding tendinosis, revision surgery, complete tears.
 - 18 month period, 3 done within 3 months of this data.
 - Average Age – 61 (49-71), 3 males, 4 females
 - 4 included in this analysis
- Preop - mHHS 52, NAHS 57, HOS ADL 64, HOS SSS 38
- 3 m post - mHHS 73, NAHS 60, HOS ADL 68, HOS SSS 58
- 1 year post - mHHS 87*, NAHS 83*, HOS ADL 92**, HOS SSS 85**

- Satisfaction – 8/10 @ 3 months and 1 year.
- VAS decreased from 8.7 to 3.3*
- No complications, no revisions

* 3 patients, **2 patients

Conclusion

- Endoscopic repair is a safe, viable surgical treatment for chronic, partial hamstring tendon tears.
- Additional follow-up needed to confirm endoscopic results.
- Careful operative technique is crucial to prevent injury to nerves and vascular structures.
- Chronic partial tears are very different than acute, complete tears with regard to objectives and outcomes.
 - Future research should reflect this difference.
