



Available online at
SciVerse ScienceDirect
www.sciencedirect.com

Elsevier Masson France
EM|consulte
www.em-consulte.com/en



CASE REPORT

Proximal hamstring avulsion in a professional soccer player

B. Sonnery-Cottet^{a,*}, P. Archbold^a, M. Thauinat^a, J.-M. Fayard^a,
S.M.G. Canuto^b, T. Cucurulo^c

^a *Santy Orthopaedic Surgical Center, 24, avenue Paul-Santy, 69008 Lyon, France*

^b *Ortoclinica, Rua Olindina Campos Teixeira, 100 Bairro-Jaticua – Maceio, Alagoas, Brazil*

^c *Orthopaedics and Sports Medicine Institute, 118, rue Jean-Mermoz, 13008 Marseille, France*

Accepted: 3 May 2012

KEYWORDS

Elite athlete;
Hamstring avulsion;
Surgical fixation

Summary Acute hamstring strains are a common athletic injury, which may be treated non-operatively with a satisfactory outcome. A complete proximal hamstring avulsion is a rare and potentially career ending injury to an elite athlete. For these high demand patients, surgical reattachment should be immediately undertaken to shorten return to sport and to improve functional outcome. This report describes the occurrence of a complete avulsion of the proximal hamstrings in a professional footballer during an international match. We highlight the clinical presentation, the appropriate diagnostic investigations, the surgical technique and the rehabilitation protocol for this injury. The successful surgical reattachment of the common hamstring tendon was confirmed by magnetic resonance imaging done 5 months after repair and allowed the player a full return to competition at 6 months after surgery. Hamstrings isokinetic peak torque was 80% at 6 months and 106% at 11 months after repair comparing with the uninjured side.

© 2012 Elsevier Masson SAS. All rights reserved.

Introduction

Hamstrings are the most common muscles injured in professional athletes [1]. The majority of acute hamstring injuries are partial thickness tears. Full recovery of the patients can be expected with conservative treatment followed by an

appropriate physical therapy program. In contrast, a complete proximal hamstring avulsion is a rare but serious injury. For these injuries, poor outcomes following non-operative management have been reported [2–4]. Due to the scarcity of these lesions, there is a lack of studies comparing the results between conservative and surgical treatment. Nevertheless, recent literature suggests that early surgical reattachment gives an athlete a greater chance of returning to their pre-injury level of sport and achieve a better functional outcome [5]. For an elite athlete, surgical repair of a complete hamstring tear may be indicated. We describe its occurrence in a professional international soccer player

* Corresponding author. Tel.: +33 4 37 53 00 22;
fax: +33 4 37 53 00 23.

E-mail address: sonnerycottet@aol.com (B. Sonnery-Cottet).

and highlight the need for early surgical reattachment of this uncommon and potentially career ending injury.

Case presentation

A 24-year-old professional soccer player injured his left leg during an international match. The injury occurred while attempting to cross the football towards goal. Just prior to striking the football, with his left knee extended and the hip flexed, he felt a sudden painful sensation in his thigh. He immediately collapsed clutching the posterior aspect of his left thigh. On examination there was significant swelling and localised tenderness of the left posterior thigh. Comparison to the right revealed asymmetry of the left posterior thigh with a visible distal bulge and a palpable defect just distal to the ischial tuberosity. Weakness with active and active-resisted knee flexion was found on muscle testing. He had no previous history of hamstring injury.

Magnetic resonance imaging (MRI) of the pelvis and thigh showed complete avulsion of the common hamstring tendon from its ischial insertion (Fig. 1A and B).

In accordance with the player, the decision was made to perform an early surgical repair. The choice of this treatment option was based on the poor outcome and low rate of

return to sports associated with non-operative management and the higher risk of complication associated with chronic surgical repair [2].

Surgery was performed in the prone position with the knee flexed to 60° to take the tension off the hamstrings. A longitudinal incision was made from the inferior gluteal crease to 8 cm distally (Supplementary data, Movie 1). The posterior cutaneous nerve of the thigh is identified and protected. The posterior fascia was divided and the gluteus maximus was retracted superiorly. The sciatic nerve, located deep and lateral to the proximal hamstring origin is identified and protected. The hamstring tendon was readily identified and mobilised (Fig. 1C) (Supplementary data, Movie 1). The hamstring insertion on the ischial tuberosity was identified and a rongeur was used to denude the bone of soft tissue to enhance healing. Two 6 mm resorbable Mitek suture anchors loaded with #4 Orthocord were placed in the ischium (Supplementary data, Movie 1). One limb of each suture was stitched through the tendon in a locking stitch; the other limb was used to secure the fixation (Fig. 1D). With the anchor acting as a pulley, tension was placed on the simple stitch pulling the tendon to the ischium. The sutures were tied sequentially with the knee at 60° of flexion providing a tension free repair (Supplementary data, Movie 1).

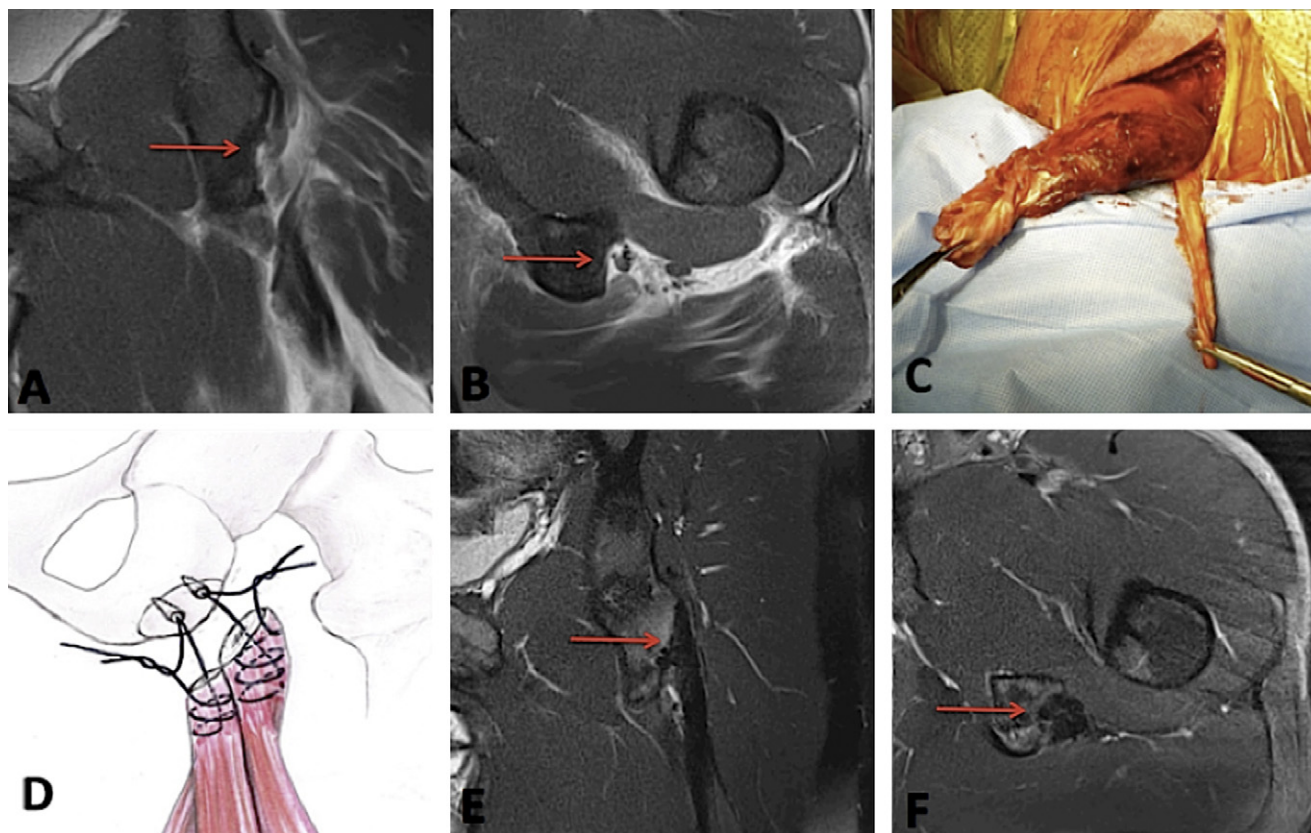


Figure 1 Imaging. A. T2 Coronal shows a complete avulsion of the proximal hamstring (arrow) with retraction of approximately 4 cm surrounded by a large haematoma between the adductor compartment and the hamstrings. B. T1 axial shows a complete avulsion of proximal hamstring tendon from the ischium (arrow). C. Mobilisation of the common hamstring origin at the time of surgery. D. Representation of the surgical technique used to reattach the hamstrings to the ischial tuberosity. E. T1 coronal at 5 months post-surgery shows the reattachment of the common hamstring tendon to the ischial tuberosity (arrow). F. Axial at 5 months post-surgery demonstrating the tendon/bone healing.

Download English Version:

<https://daneshyari.com/en/article/4081958>

Download Persian Version:

<https://daneshyari.com/article/4081958>

[Daneshyari.com](https://daneshyari.com)