

Case Report

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Endoscopic Hip Surgery in the Treatment of External Snapping Hip for A 22 Years Old Women

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Abstract

The snapping hip is a painful and disabling condition, related to a conflict between the greater trochanter and the soft tissue surrounding it. It is characterized by an audible click and sometimes visible on the thigh lateral region during the movements. The classical treatment is with opened surgery, but only few cases are reported.

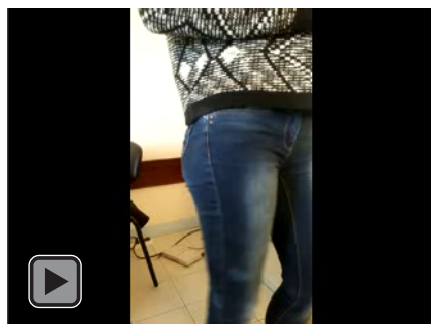
We present the case of a young 22 years old Caucasian female with external snapping hip and associated with tendinitis of the medium and maximus gluteus. The diagnosis was done clinically and radiologically with a nuclear magnetic resonance. The treatment was performed by a hip endoscopy after failure of medical treatment and physiotherapy. The bursectomy and the adhesions's release gave very good results for our patient.

Peritrochanteric endoscopy seems to have a place in the treatment of external snapping hip, allowing good visualization of lesions and optimal therapeutic management by first mini invasive routes. It might be a way for a better recover.

Keywords: Snapping hip; Caucasian female; Fluoroscopy; Fascia lata; Gluteus maximus

Case Report

A young 22 years old Caucasian female has a visible and audible snap of her right hip associated with pain during external rotation, flexion, and abduction (Video 1). A partial functional disability which handicaps her for 18 months. Running the upstairs and kneeling were very difficult, it is a common symptom [1-3]. Her story did not find traumatic history, dysplasia, or other medical problem. Radiographs were normal outside a bilateral coxa vara with High Offset. The horizontal femoral offset is measured 47.2 mm which is a high value (according to Dimitriou: N = 37.0 mm 95% CI (0.5, 2.0) p <0.01) [4] between the center of the femoral head and the perpendicular with the femoral shaft (Figure 1). Diaphyseal cervical angle measured at 130° (Coxa Vara) [4]. MRI shows a gluteus maximus atrophy with a sickle-shaped myotendinous junction (Figure 2) right next to its insertion on the greater trochanter. A hypo signal T1 and T2 signal in the tendinitis area enhanced by the contrast agent (Figure 3) [5]. Other structures muscle tendon (especially the hamstring), and bone present no anomaly or post traumatic reshuffle. The diagnosis of external snapping hip is done. It results on friction of the fibers of iliotibial tractus and gluteus maximus over the greater trochanter during the hip flexion-extension [5,6].



Video 1: Video showing the clinical snap when passing the fascia lata over the greater trochanter.

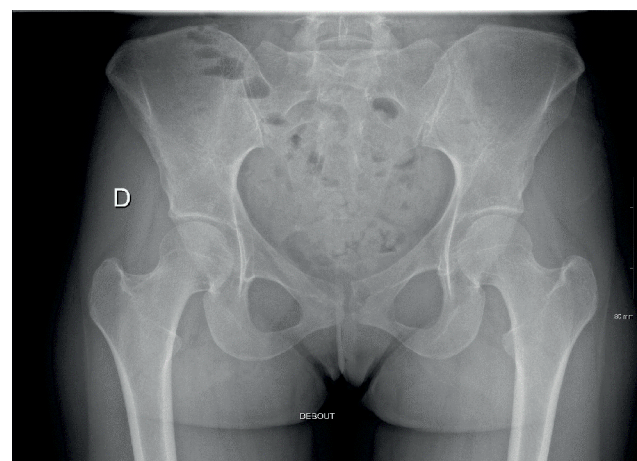


Figure 1: 22 years old Female with external snapping hip, standard radiograph Face basin.

Medical treatment has initially been implemented for several months without success (rest, infiltration, analgesics tier 1 and 2, and kinesiology according to Stanish's method) [7,8].

Surgical technique

Endoscopic surgical treatment has therefore been proposed [9]:

Installation: in left lateral decubitus position, under general

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Figure 2: 22 years old Female with external snapping hip, MRI sequence T1 STIR axial section through the trochanteric. Viewing atrophy Gluteus Maximus (GM) sickle-shaped (arrow) against its posterior insertion on the Greater Trochanter (GT).



Figure 3: 22 years old female with external snapping hip, MRI sequence T1 STIR in sagittal section through the right femoral head. Viewing a hyper signal next to the insertion point of the gluteus maximus over the greater trochanter.



Figure 4: 22 years old female with external snapping hip, endoscopic surgical view before bursectomy and release of adhesions.

anesthesia, left leg at 20 ° of abduction, with fluoroscopy.

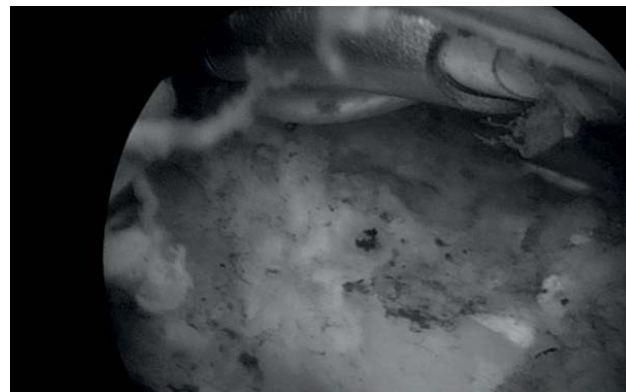


Figure 5: 22 years old female with external snapping hip, endoscopic surgical view after bursectomy and adhesions's release.

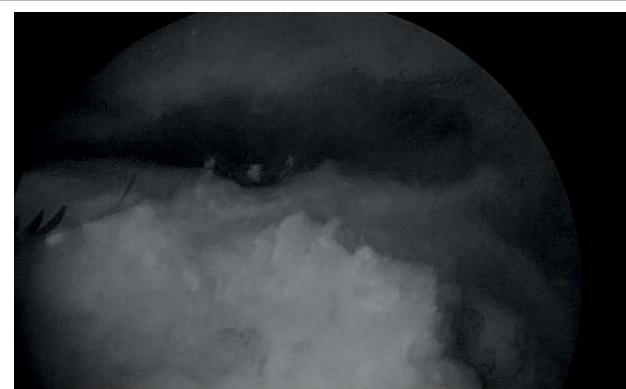


Figure 6: 22years old Woman with external snapping hip, endoscopic final view after bursectomy and adhesions's release. Disappearance of the snap to the mobilization.

The click was clearly visible and audible during all operative team.

A first surgical approach was subtrochanteric femoral next Metaphysis, a second one was a posterior and lateral approach near the greater trochanter [10]. The optical 70 ° is placed in the space under fascia between the greater trochanter and the trochanteric bursa. The zone is very inflammatory (Figure 4), and there are many adhesions.

We used a radiofrequency system by superior way to achieve a progressive bursectomy and release of fascial adhesions (Figure 5). A gradual release of the fascia lata was performed, and a release of the posterior low insertion of the gluteus maximus (Figure 6). This release completely eliminated the mechanical click.

Then an hip arthroscopy was done to exclude an intra-articular click, it showed a normal labral bead without osteoarthritic hip injury, then back to the endoscopy of the trochanteric area we released the latest adhesions under fascial respecting the noble parts (femoro nerve cutaneous, sciatic nerve, and femoral vessels).

We achieved hemostasis with radiofrequency and tested the strictly free hip without snap, we finally did a corticosteroid injection of 40mg in the trochanteric bursitis area. We closed with absorbable suture, with a simple elastic bandage.

The postoperative course was uneventful, with a full weight walking, an outlet of hospital was allowed the next day with a prescription for simple analgesics, sitting immediately possible, the painful symptoms

had disappeared a week of surgery, a walk 3 Km to 10 days post-surgery without pain, and the possibility of crossing the legs without pain to 3 weeks. Only a slight pain persisted the gluteus maximus to 5 weeks postoperatively. Six weeks later, irradiating low back pain in the right lower limb motivated a new prescription consultation with a lumbar MRI finding a pathological contrast enhancement of inter laminar ligament L4-L5 plumb its insertion on the right L5 blade. It is not related with our treatment. When we interrogated the patient, these symptoms were not found before surgery. These symptoms disappeared after medical treatment and now the patient works all day standing without pain.

Discussion

The external snapping hip is a condition described in 1859 by Perrin and Morel Lavalee found in 5 to 10% of the population, mostly affecting women (sex ratio 3/1), with an average age of 29 years.

The differential diagnoses are the anterior snapping hip (tendon of the iliopsoas muscle responsible of a deep slamming felt by the patient during active mobilization of hip in flexion extension, not visible or palpable, and rarely painful) and intra articular snap hip related to a labral tongue, a chondral valve, a lesion of the round ligament, or the presence of a foreign body [11].

This is mostly an unpleasant but not painful sensation slam by walking, running, rising from a chair, bound to the friction of the strip Ilio Tibial (Fascia Lata) over the greater trochanter. The projection is often audible, palpable and visible during active mobilization of lower limb, but rarely found in liabilities movements. Only complications of this syndrome can have painful symptoms (trochanteric bursitis, tendinitis and medium gluteus maximus). The presence of these complications may lead to establish a treatment: medical first (Infiltration, Physiotherapy stretching the fascia lata and deep transverse massage), then surgery: Relaxation (or extension) of the iliotibial band by endoscopic or not with a trochanteric bursectomy and tendon release.

This method gave good results for our patient, compared with classical opened surgery. Kim [12] had only one patient on three who was able to return to full activities with opened surgery. Fery [13] found 30% of successful results but he reviewed patient at late delay.

Conclusion

Peritrochanteric endoscopy seems to have a place in the treatment of external snapping hip, allowing good visualization of lesions so that optimal therapeutic management by first mini invasive routes. Post-operative pain and care seem to be shorter than in a direct approach. Normal activity recovery and disappearance of pain relief is almost immediate

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