SURGICAL RELEASE OF THE ‘SNAPPING ILIOPSOAS TENDON’

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We report 22 patients (19 women and three men) of mean age 20.8 years who had painful snapping sensations in the groin. Most were able to reproduce the click by extending the affected hip from a flexed, abducted and externally rotated position and most were tender in the adductor triangle. Plain radiographs and an arthrogram were normal. A clinical diagnosis of subluxation of the iliopectineal bursa, which is a separate condition (Meaney et al 1992).

The existence and surgical treatment of this syndrome are not widely known (Jacobson and Allen 1990), but some cases do not resolve with conservative treatment and may require operation. Schaberg et al (1984) and Jacobson and Allen (1990) described treatment by surgical lengthening of the tendon, usually through an ilioinguinal approach.

We report 22 patients with a snapping psoas, 14 of whom were successfully treated by iliopectineal bursal release through a cosmetically acceptable medial approach.

PATIENTS AND METHODS

Patients referred with painful clicking hips were assessed clinically and radiologically to define those with the symptoms and signs of a ‘snapping psoas’. Radiographs were measured for evidence of acetabular dysplasia using the centre-edge angle of Wiberg (1933), the acetabular index and the femoral neck-shaft angle. Those with the more common ‘greater trochanteric pain syndrome’ (Karpinski and Piggott 1985), characterised by tenderness and snapping of the free edge of the fascia lata where it crosses the greater trochanter, were excluded.

There were 22 patients (19 women and three men) who were able to reproduce their symptoms by extension of the flexed, abducted and externally rotated hip. Their mean age was 20.8 years (13 to 41). The average duration of symptoms before referral was 27.3 months (4 to 240). Eight had snapping on both sides but only two had significant pain in both hips; in these latter patients the diagnosis was confirmed by the ‘extension test’ described above.

In all the patients the click was felt deep in the groin and was followed by a dull ache, commonly radiating into the thigh and lasting from minutes to hours. In eight the symptoms were bilateral; one side was always more painful than the other in all but two patients.

In 15 patients, the click was troublesome in activities as simple as rising from a seated position or turning while walking. The remaining seven complained of the pain during sport or dancing. None reported a specific incident which had initiated their symptoms.

In all 22 patients dynamic arthrography was performed by the senior author (NMPC) to assess stability and to exclude intra-articular pathology such as loose bodies and torn labra. Under general anaesthesia, a 23-gauge spinal
needle was introduced into the joint by an anterolateral approach and 5 to 10 ml of Omnipaque 180 injected under image intensification. The hip was manipulated while being screened and appropriate images were recorded on hard copy. Two patients were given steroid injections into the region of the iliopsoas tendon at the time of arthrogram.

Patients whose symptoms were provoked by recreational activities were advised to avoid them for at least six weeks and were treated by physiotherapy, which included assisted extension and ultrasound. At review 14 patients (16 hips) still had symptoms which warranted release of the iliopsoas tendon. The remainder had either improved or their disability was not severe enough to require surgery.

The tendon release was performed through a 5 cm horizontal incision approximately 2.5 cm below the inguinal skin crease and centred over the palpable border of the adductors (Fig. 1). A bloodless plane was developed between pectineus and adductor brevis medial to the femoral artery. The iliopsoas tendon was identified and the true tendinous portion divided under direct vision leaving associated muscle fibres intact (Fig. 2). After operation the patients were mobilised partially weight-bearing until the wound had healed and then allowed to mobilise independently. All were reviewed until recovery was complete.

RESULTS

The mean period of follow-up after operation was 17.1 months (5 to 39) but the mean time for recovery as recorded in their case notes was 2.9 months (2 to 6).

The operation was generally successful in relieving the ache. It always modified the ‘psoas snap’, usually rendering it painless, but did not necessarily abolish it (Table 1).

There were no early complications. Two patients had persisting weakness of flexion of the hip above 90°, most noticeable when standing. Both regarded this to be a minor inconvenience worth the relief of their symptoms. Two patients requested the procedure for the opposite side after recovery from the first operation, and these results have been included.

DISCUSSION

A painful ‘snapping psoas’ may produce significantly disabling symptoms in a small number of patients. If conservative measures fail it may be treated successfully by release of the iliopsoas tendon, with improvement in resolution of the pain. The click was abolished in ten hips, reduced in five and was unchanged in one. In the last patient the diagnosis may have been incorrect. It is not known why the click was reduced in frequency and severity, but not abolished, in five hips. This has been noted in other series treated by a different method (Jacobson and Allen 1990).

Nunziata and Blumenfeld (1952) and later Schaberg et al (1984) described operations for this condition, but our method is cosmetically more acceptable, using a tendon release through a limited medial approach rather than a more extensive iliinguinal exposure. This avoids poor cosmesis and possible damage to the lateral cutaneous nerve of the thigh (Jacobson and Allen 1990).

The diagnosis can be made on clinical grounds using the ‘extension test’ as described, which is similar to the examination described by Schaberg et al (1984). Arthrography was performed at the time of tendon release in all but the
early cases to exclude intra-articular pathology, particularly labral tears, which may give rise to similar symptoms of 'clunking' and pain (Dorrell and Catterall 1986; Ikeda et al. 1988). It provides a dynamic image which can reveal instability, another established cause of painful clunking in the hip (Klaue, Durnin and Ganz 1991; Stuart and Epstein 1991).

Schaberg et al (1984) initially used iliopsoas burso- graphy under local anaesthe sia to diagnose the condition, visualising the sudden snap of the tendon. Jacobson and Allen (1990) continued to study that series of patients and are now able to make the diagnosis on clinical grounds. It is necessary, however, to exclude intra-articular pathology. MRI was used in three patients in our series, as well as arthrography, but showed no change in signal in the ilio- psoas tendon and surrounding tissues. Arthrography therefore remains a useful investigation.

Two patients experienced subjective weakness of hip flexion, but did not consider this to outweigh the benefit of operation. Three of Jacobson and Allen’s 18 patients experienced the same complication, despite lengthening rather than division of the tendon. They also had two failures which required another operation; we have not encountered this with tendon division in which only the tight, inelastic portion was cut.

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REFERENCES


