CASE REPORT

A pseudotumour of the thigh: tensor fasciae latae muscle hypertrophy due to an underlying abductor tendon tear

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SUMMARY

We present a patient with an asymptomatic unilateral swelling of the anterolateral thigh. MRI showed hypertrophy of the tensor fasciae latae muscle due to an underlying gluteus minimus tendon tear.
Abductor tendon tears can present with swelling of the thigh due to secondary tensor fasciae latae muscle hypertrophy.

BACKGROUND

In this case, we report our experience with an uncommon cause of swelling of the upper thigh: hypertrophy of the tensor fasciae latae muscle secondary to a small abductor tear. To our knowledge, this has never been described in previous reports.

CASE PRESENTATION

A 68-year-old man with no relevant medical history (eg, no lower limb surgery or trauma) was referred to our outpatient clinic because of a gradually growing swelling on the right anterolateral thigh. He noticed the swelling a year before and was worried about the possible underlying cause. He reported no trauma related to this complaint. He had no pain and an unlimited range of motion of his hip and knee.

Physical examination showed a diffuse not mobile swelling, localised over the tensor fasciae latae muscle, and the overlying skin showed no abnormalities.

INVESTIGATIONS

An X-ray showed a normal aspect of the femur. An additional MRI (figure 1) showed unilateral hypertrophy of the right tensor fasciae latae muscle. The only other abnormality was an incomplete tear of the right gluteus minimus tendon (figure 2).

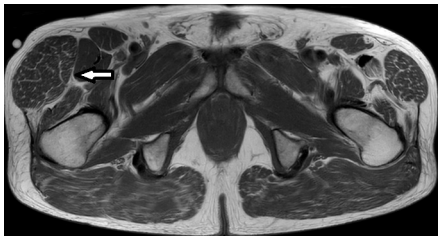

Figure 1 T1-weighted transverse MRI of the pelvic area. At the location of the fiducial, which was placed on the swelling, a hypertrophic right tensior fasciae latae muscle was identified.

DIFFERENTIAL DIAGNOSIS

A wide scale of diagnoses can cause a soft tissue mass in the upper leg. This includes different benign and malignant tumours and neoplasm mimicking diseases.[1]

TREATMENT

Because of the absence of pain, limping or impaired range of motion only regular abductor training was started.

OUTCOME AND FOLLOW-UP

At follow-up examination 2 and 6 months after diagnosis, the patient was still without limitations regarding the right hip and the tensor fasciae latae hypertrophy remained visible.

DISCUSSION

In this case, it was presumed that a small tear of the gluteus minimus tendon was the underlying cause of the hypertrophic tensor fasciae latae muscle. The tensor fasciae latae muscle appears to compensate the partial loss of abduction in the hip.

To our knowledge, this is the first case report of a patient solely presenting with an asymptomatic swelling of the musculus tensor fasciae latae due to a small hip abductor tendon tear. A recent retrospective study of MRI imaging for hip abductor tendon tears also showed hypertrophy of the tensor fasciae latae muscle in comparison to the contralateral hip. However, contrary to our case, all patients were symptomatic (pain or muscle weakness).[2]

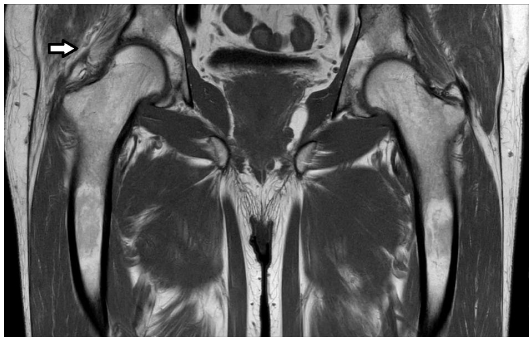

Figure 2 T1-weighted coronal MRI of the pelvic area showing an incomplete tear of the right gluteus minimus tendon.

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Another study that retrospectively reviewed eight patients with a proximal anterior thigh mass showed eight cases of musculus tensor fasciae latae hypertrophy. In six cases, they found a cause; prior surgery with altered weight bearing mechanics, biopsy confirmed myopathy and diabetic peripheral neuropathy and radiculopathy. In none of these cases abductor tendon tears were reported.[3]

Our study emphasises on one of the multiple compensatory mechanisms in the human body. To exclude serious illness, we suggest further analysis with MRI in patients presenting with soft tissue swelling of the anterolateral upper thigh. In this case, the patient remained asymptomatic, possibly because of regular abductor training.

Learning points

- Abductor tendon tears can present with a tensor fasciae latae hypertrophy.
- Tensor fasciae latae hypertrophy can, apart from swelling, be symptomless.
- This case seems a good example of a compensatory mechanism in the human body.

Contributors RPJM: head author and wrote the text. JJ: helped in designing and writing the article. BS: research supervisor and assisted the head author. JJ: treating doctor of the patient in this case report and the final reviewer before submission.

Competing interests None declared.

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