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# IOP - Images

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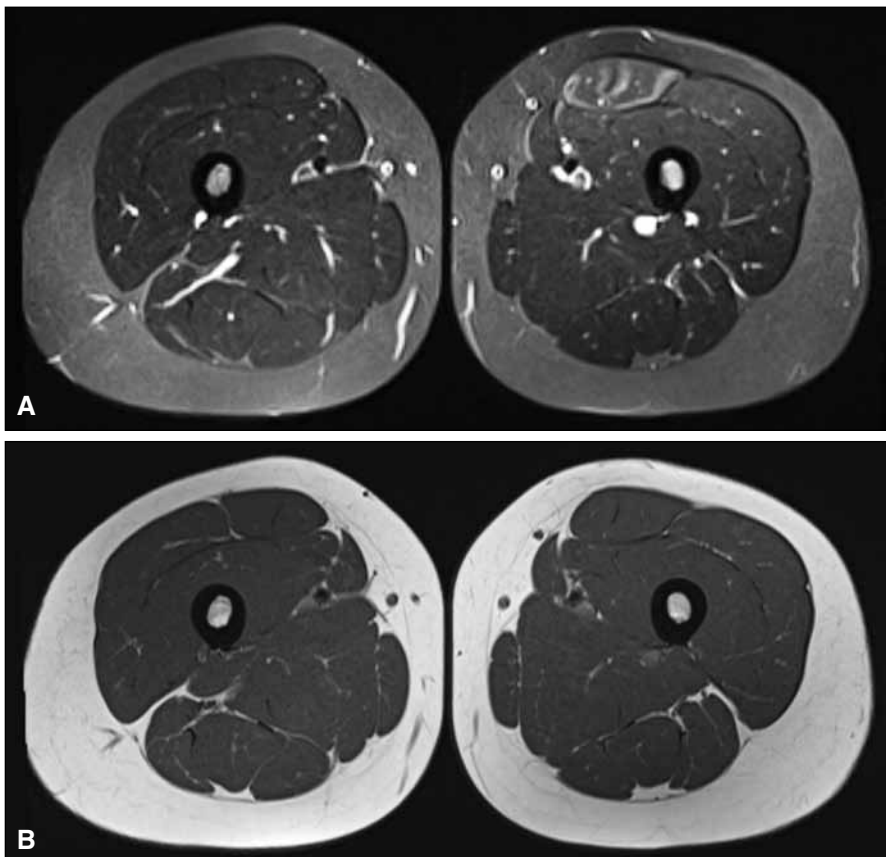
## Case

A female seventy-year old hockey player feels acute pain on the anterior aspect of her left thigh upon bullying off. At physical examination doctors detect a segmental, vague pain area on the third middle of the thigh which topographically coincides with the rectus femoris muscle.

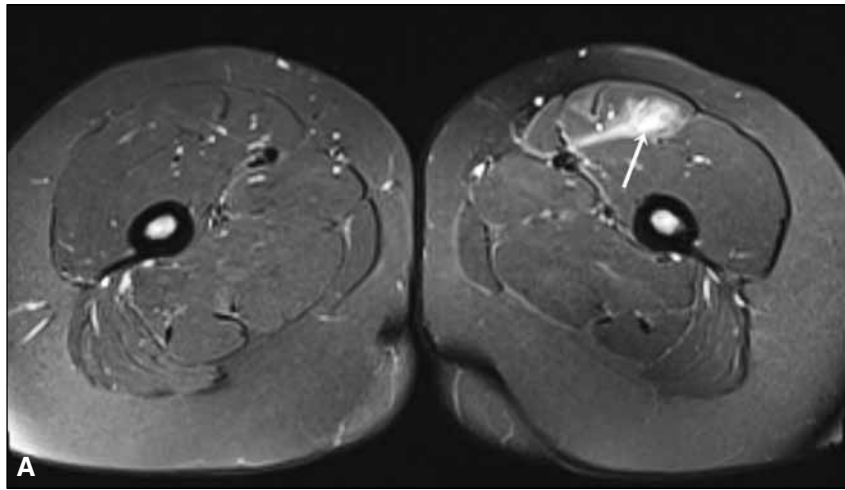
## Findings and interpretation of the imaging studies

MRI images show signal abnormalities in the left rectus femoris muscle in two places. In the injury of the middle third on the MRI transverse section it is possible to delineate the medial and lateral portions of the muscle due to a fluid band between them (hyperintense signal in fluid-sensitive sequences). The medial portion represents the indirect belly, whereas the lateral portion represents the direct belly of the rectus femoris muscle. Moreover, it is possible to identify edema in muscle fibers in both bellies (Figure 1). On the other hand, the patient had another injury in the proximal third of the muscle in its posterior miofascial topography (Figure2).

*Resolution of the case on page 147.*



**Figure 1.** MRI comparing both thighs. **A.** STIR transverse section. The injury is in the left rectus femoris muscle and the image shows two hyperintense lineal bands that delineate the muscle bellies of the muscle. The direct head represents the superficial, peripheral one, whereas the indirect head is central and deep and it is associated with its “comma”-shaped tendon. Comparisons can be made with the normal contralateral rectus femoris muscle. **B.** T1 transverse section (600/9.4). In this sequence the injury is virtually absent—there is only minimal thickening in the left intramuscular wall.



**Figure 2.** MRI comparing both thighs.  
**A.** STIR transverse section (3220/46/150). The patient had another injury in the proximal rectus femoris muscle (upper 1/3) with posterior miofascial disposition. Here she did not report pain. **B.** STIR coronal section (3220/46/150). The injuries in both the upper and the middle thirds are shown in the same MRI section.

