Isolated partial rupture of the medial head of the gastrocnemius muscle (tennis leg)

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DESCRIPTION

A 31-year-old man presented to our emergency room with a sudden pain in the right calf. The patient was a soldier and had a history of a severe pain in the upper part of his right calf after a sport activity with difficulty in walking. During the physical examination, there was tenderness in the proximal part of the calf with palpation. No ecchymosis or swelling was observed. Calf pain was increasing during dorsiflexion and knee extension. Laboratory findings were normal. Ultrasonography (US) and Doppler ultrasonography procedures were utilised to rule out deep vein thrombosis. US revealed a 13–14 mm long partial hypoechoic track line-shaped rupture of the medial head of gastrocnemius muscle, which extended from adjacent fascia into the muscle (figure 1). MRI demonstrated a partial rupture in proximal part of the medial head of the right gastrocnemius muscle associated with a minimal fluid along the adjacent fascia (figure 2). The patient was treated with the conservative methods of resting, elevation of the leg, ice compression and use of analgesics.

Tennis leg is a relatively common clinical condition which is attributed to a rupture of the plantaris tendon. More recently, most investigators have implicated a rupture of the medial head of the gastrocnemius muscle at the musculotendinous junction in the pathogenesis of this entity.¹ The classic clinical symptom is in a middle-aged person who complains of sport-related acute pain in the middle portion of the calf. Tenderness is present in calf during physical examination. Calf pain increases with the ankle dorsiflexion and knee extension.^{1 2} MRI and US have been used as the primary imaging techniques for evaluation of

Figure 2 Coronal (A) fat-saturated and axial (B) T2 weighted MRI show the partial rupture (arrows) in the proximal part of the medial head of the right gastrocnemius muscle (asterix). Coronal fat-saturated T2-weighted MRI (C) shows minimal fluid (arrow heads) extending along the adjacent fascia.

patients with this clinical diagnosis.¹ Doppler US helps to rule out differential symptoms, such as deep vein thrombosis.^{1 3} The treatment of this condition is usually conservative with elevation of the lower extremity, application of ice and use of supportive elastic dressings.³

Learning points

- ▶ Rupture of the medial head of the gastrocnemius muscle, known as tennis leg (TL), is seen regularly in practice and is an important traumatic injury of the calf that may be mixed with the deep vein thrombosis.
- ▶ Ultrasonography and MRI have been used as the primary imaging techniques for evaluation of patients with this clinical diagnosis.

Contributors All authors have contributed equally in preparing the manuscript research, review, writing and all of them have approved the final draft of the article.

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Figure 1 Ultrasound image shows a 13–14 mm long partial rupture (arrows) which extends from adjacent fascia into the muscle in the medial part of the medial head of the right gastrocnemius muscle (asterix).

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