

ACCESSORY SOLEUS MUSCLE

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An asymptomatic soft tissue mass in the distal calf region was examined with magnetic resonance. The diagnosis of an accessory soleus muscle was made using the tissue and topographical characteristics.

Keywords : muscles ; abnormality ; soleus ; magnetic resonance imaging.

Mots-clés : muscles ; anomalie ; soléaire ; imagerie par résonance magnétique.

INTRODUCTION

The accessory soleus muscle is a rare abnormality already known by anatomists in the last century (11). It is seen as a mass in the Achilles region which should be distinguished from other soft tissue pathology. The image with computed tomography (5, 7, 8, 10) and especially with magnetic resonance (MR) (2, 9) is so specific that it makes diagnosis possible without surgical exploration. Such a case is presented here.

CASE REPORT

A 21-year-old man, whose father was Algerian and mother was of French origin, consulted for a mass in front of the left Achilles tendon which bulged principally on the medial side (fig. 1). He had noted this deformation for many years. It was soft and painless on palpation and caused no symptoms, even though the patient played competitive soccer from the age of 10 years. The function of the ankle and foot was normal. The patient had never been seriously ill.

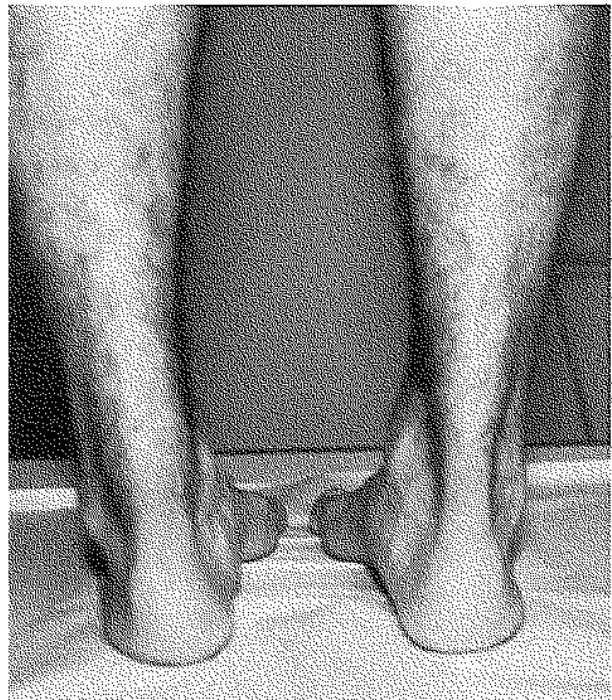


Fig. 1. — Left peri-Achilles mass noted on clinical examination.

Soft tissue radiography showed the inside of Kager's triangle filled by a shadow having a clearly defined outline. The MR-image corresponded to an accessory soleus muscle (fig. 2). No abnormality was observed in the bone.

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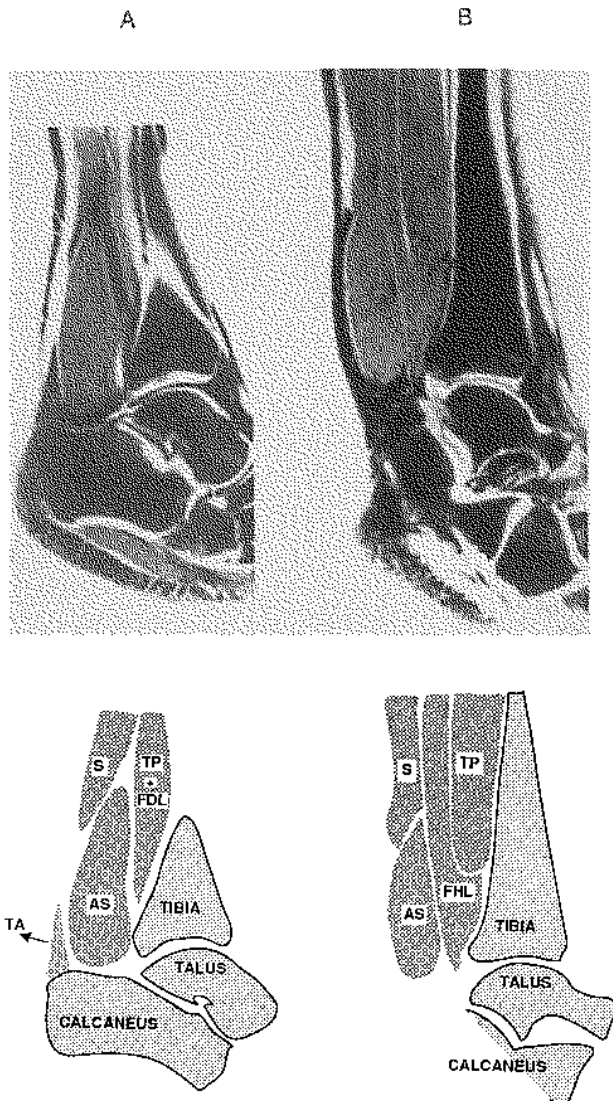


Fig. 2a, b. — Magnetic resonance with explanatory sketches. Two sagittal images of the ankle region showing the topography of the accessory soleus muscle (AS). Its appearance in T1, T2 and proton-density-weighted sequences is the same as that of the surrounding muscles. S : soleus muscle, TP : tibialis posterior, FHL : flexor hallucis longus, FDL : flexor digitorum longus, TA : Achilles tendon.

DISCUSSION

The origin of this supranumerary muscle of the calf is situated in the space between the soleus muscle and the deep layer of the flexors. It

attached to the soleus muscle (1, 3, 5), to the deep crural fascia (3, 8), the posterior border of the tibia (8) and often to the flexor hallucis longus muscle and/or to the flexor digitorum longus (7). It is clearly separated from the Achilles and other flexor tendons by its own fascia (10). During its course, it covers the posterior neurovascular bundle. Insertion in the calcaneus may be tendinous or fleshy. It is localized in front of the Achilles tendon on the medial side, less frequently on the median line or in close proximity to the Achilles tendon (5). Exceptionally, this defect is observed bilaterally (3, 10).

The abnormality presents often, as in our case, as a painless tumor (2, 5, 8, 9, 10). Since Dunn's communication in 1965 (3), it is known that it may also provoke activity-related pain and swelling near the ankle (4, 5, 6, 7, 8, 10). Ger and Seldin (4) suggested that it may cause an ischemic compartment syndrome due to the tightness of its fascial cover. The symptoms often appear in athletes in the second and third decades. Sometimes the only manifestation is local sensitivity (8), disesthesias (1) or discomfort produced by pressure from the back of the shoe (3). Lozach *et al.*'s (6) communication on the tendency to the varus position increased by effort is a unique observation. The treatment consists of excision of the muscle (1, 7, 10) or fasciotomy (10). Lozach *et al.* (6) anastomosed the muscle to the Achilles tendon with good results. Clinical awareness and the appearance on MR may help to avoid a surgical intervention in asymptomatic cases.

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SAMENVATTING

J. VANEK, D. FOURRÉ. Soleus accessorius.

Een asymptotische tumor van de weke delen in de distale kuit werd met nucleaire magnetische resonantie onderzocht. De diagnose werd op soleus accessorius spier gesteld aan de hand van de tissulaire en topografische gegevens.

RÉSUMÉ

J. VANEK, D. FOURRÉ. Muscle soléaire accessoire.

Une tumeur asymptotique des parties molles, située à la région distale du mollet, fut examinée par résonance magnétique nucléaire. Le diagnostic de muscle soléaire accessoire fut posé en tenant compte des caractéristiques tissulaires et topographiques.