Cystic Degeneration of the Peroneus Brevis Tendon: Ultrasound Diagnosis

Degeneração Quística do Tendão Fibular Curto: Diagnóstico Ecográfico

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A 62-year-old female patient presented with complaints of bulging and pain in the lateral region of her foot for the past three months. She reported progressive bulging but noted no foot movement or shoe-wearing limitations. Upon physical examination, bulging was observed in the region of the base of the fifth metatarsal, extending to the hindfoot, without evidence of local hematomas or alterations in mobility. Palpation revealed that the bulging was mobile and hardened. Ultrasound examination revealed extensive septated cystic formations in the peroneus brevis tendon, suggesting cystic degeneration (Fig. 1). The patient underwent conservative treatment with rest and lifestyle changes in the subsequent weeks, resulting in an improvement in pain.

Ganglion or synovial cysts are benign tumours that can affect any area of the connective tissue of bones, muscles, and tendons. They are more common in women aged 15 to 40 years. Although ganglion cysts are recurrent, cysts originating from tendons, known as intratendinous ganglion cysts, are rare, especially when affecting the peroneal tendon.[1] Peroneal or fibular tendons serve as lateral stabilizers of the ankle and can present various anatomical variations, making them prone to injuries. However, injuries to the peroneal tendons are often overlooked when patients complain of lateral ankle pain. Recognising the origin of this pain is essential to prevent future ankle dysfunctions and ensure a safe return to the patient's daily activities.[2]

For the evaluation of peroneal tendons, magnetic resonance imaging (MRI) is considered the gold standard examination, as it allows for better visualization of soft tissues in different planes, such as axial, sagittal, and coronal. Other imaging modalities, such as ultrasound, may be used for complementary purposes or in cases where MRI is contraindicated. In intratendinous ganglion cysts, MRI typically reveals a well-defined cystic lesion within the tendon, exhibiting high signal intensity on T2-weighted images and peripheral enhancement with contrast. MRI can help determine the extent of the lesion and

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assist in surgical planning.[2] Ultrasound, as demonstrated in this case, can also be used to diagnose intratendinous cysts, offering advantages in terms of speed and cost compared to MRI.

Once the diagnosis is confirmed, treatment depends on two factors: the duration of signs and symptoms (acute or chronic) and whether ankle eversion is compromised. In simpler cases, conservative measures such as immobilization of the involved joint, rest, and lifestyle changes are often sufficient.[1,2] Puncture of the cyst or the use of injectable anti-inflammatory agents may be considered as an alternative treatment option. Surgical intervention is indicated for unstable and symptomatic ganglion cysts with severe and chronic characteristics.[1,2] Surgical treatment involves not only excision of the cyst but also thorough examination and potential correction of underlying anatomical anomalies and fractures, as well as tendon debridement, tubularization, tenodesis, or autograft.[1]

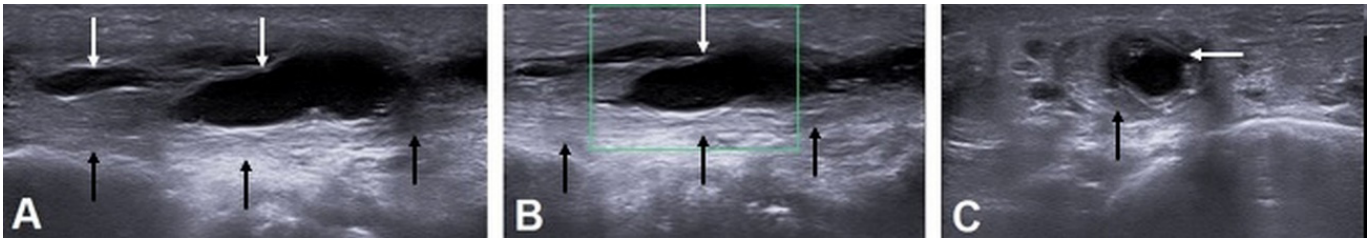

Figure 1. Ultrasound in longitudinal section (A), with Doppler (B) and in the axial section (C) demonstrating peroneus brevis tendon (black arrows) cystic degeneration (white arrows).

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