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Letter to the Editor

Charcot foot associated with chronic alcoholism in a non-diabetic patient: An unusual association☆

Pie de Charcot asociado con alcoholismo crónico en un paciente no diabético: una asociación inusual

Dear Editor,

Charcot osteoneuropathy is a potentially destructive entity associated with loss of sensitivity in the feet, peripheral neuropathy secondary to diabetes mellitus is the most common cause, with an incidence of between 0.1 and 5%.[1,2] However other pathological conditions can cause Charcot foot, such as neurosyphilis, multiple sclerosis, poliomyelitis, folic and vitamin B_{12} deficiency, HIV infection and chronic alcohol abuse, among others.[1,2] The published data on the prevalence and incidence of the disease indicate that it is often not diagnosed in alcohol dependents, with figures from 0.4% to 13%, similar data to that of diabetic patients.[1,2] The "rocker-bottom foot" deformity is its last and most serious manifestation.[1,2] We present the case of a male patient in the fifth decade of live, non-diabetic and chronic consumer of 350 g alcohol/week. He was admitted to our centre due to ulcers on both feet. When his medical history was taken, he explained symptoms over 12 months of the onset of oedema, ulcers, burning sensation in the legs, and progressive swelling of the right foot, with no previous trauma. Physical examination revealed suppurating ulcers and flat, convex deformed foot with erythema and plantar ulceration (rocker-bottom foot) CT scan (Fig. 1) showed diffuse involvement with destructuration and bone remodelling of the tarsometatarsal and scaphoid-cuneiform midfoot (straight white arrow), and radiolucent areas compatible with disuse osteopenia (dotted white arrow). Electromyography revealed sensory peripheral neuropathy. Charcot osteoneuropathy was diagnosed from the clinical and epidemiological, radiological and neurological findings. Alcohol-dependence syndrome is a chronic social disease, its most frequent neurological complication being peripheral polyneuropathy, and it is associated with nutritional deficiencies (thiamine – vitamin B_1 – malabsorption), and direct neurotoxicity of ethanol as presumed risk factors for Charcot foot. The triggers for and pathogenesis of Charcot foot are not clear, but it is probably associated with mechanical and vascular factors secondary to sensory and autonomous peripheral neuropathy. In the acute phase differential diagnosis with cellulitis, osteomyelitis or deep vein thrombosis is essential. The prognosis depends on early detection, and response to treatment depends on its stage at the time of diagnosis. The initial treatment, as in the case we present, in addition to a course of antibiotics – in the event of associated infection – and nursing care, comprises immobilisation and no weight bearing on the foot by means of a full plaster, to minimise oedema and halt progression of the disease. In a second stage we used made-to-measure footwear.[3,4] If this fails, for severely deformed feet, surgery is possible – to achieve a plantigrade foot and prevent bone spur causing pressure to the skin, and therefore ulcers, tendon surgery to restore muscle balance or elective reconstruction to leave the patient with a functional foot and avoid amputation[3,4] which in our case, the patient refused.

Fig. 1. CT scan of right foot: straight white arrow: diffuse involvement with destructuration and bone remodelling of the tarsometatarsal and scaphoid-cuneiform midfoot. Dotted white arrow: radiolucent areas compatible with disuse osteopenia.

Conflict of interests

The authors have no conflict of interests to declare.

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Distal intersection syndrome: An unusual cause of forearm pain☆

Síndrome de la intersección distal. Una causa poco frecuente de dolor en el antebrazo

Dear Editor,

Pain in the carpus and forearm is a frequent reason for rheumatology consultation. Overuse tendonitis and repeated microtrauma are among the most frequent mechanical causes. De Quervain's tendonitis is one of the most common conditions, although there are also other less common disorders with a similar clinical presentation.

We present the case of a 28-year-old woman, with no clinical history of interest, who consulted due to the sudden onset of pain and swelling on the dorsal surface of the distal third of her right forearm with marked functional limitation on extension of the carpus and first finger. The patient is an administrative worker, whose only recent history of note was having rowed during her recent holidays. Examination revealed local heat and swelling on the dorsolateral region of the forearm around 5 cm proximal to the radiocarpal joint. On resisted extension of the first finger, the patient's pain increased, and there was marked crepitus at this level. Finkelstein's manoeuvre was positive, painful at around 5 cm proximal to the radiocarpal joint. Sensory examination was normal. The patient had no synovitis or pain in other areas.

An ultrasound was performed (Image 1) showing tenosynovitis of the 2 tendons of the I extensor compartment (short extensor and long abductor of the thumb) at the level of the distal third of the forearm as it crosses the tendons of the II dorsal compartment, with no power Doppler signal. Joint measurements of the AL + ECRL, and EB + extensor tendons were taken, .38 and .41 cm^2 respectively, which are above the measurements usually described.[1] There was no tendon involvement at the level of the radial styloid. Ultrasound of the carpus and forearm of the healthy side was normal. Distal intersection syndrome caused by rowing was diagnosed. The patient was treated with rest and immobilisation for a week, and ultrasound-guided injection of 40 mg of triamcinolone acetonide. After 2 weeks she showed full clinical and ultrasound improvement.

Distal intersection syndrome is caused by mechanical rubbing between the long abductor and short extensor tendons of the thumb and the tendons of the radial carpal extensors (short and long) that are beneath the 2 former.[2] The 4 tendons intersect forming a 30° angle at about 4–5 cm from the radiocarpal joint (Image 2). The main cause of inflammation at this level is rubbing due to overuse through work (typing or carpentry) or sport (golf, rowing and racquet sports) due to repeated flexion and extension of the wrist.[3,4]

Diagnosis is usually clinical, depending on the site of the pain and crepitus, and ultrasound can be used to confirm findings of tenosinovitis.[5,6] Differential diagnosis must be established with De Quervain's tenosynovitis, Wartenberg syndrome (compressive neuropathy of the superficial sensory branch of the radial nerve) and common extensor tendonitis.[7] Finkelstein's manoeuvre can be positive, but the determining finding for diagnosis is the painful area being located at around 5 cm from the radiocarpal joint (Image 2).

Treatment is based on the local application of cold, rest with anti-inflammatory drugs, and local injections are often very useful for severe or recurring cases. Surgical treatment to release the II extensor compartment might be necessary for cases that are limiting associated with sports activities.

In sum, distal intersection syndrome should be considered in the differential diagnosis of De Quervain's tenosynovitis of atypical presentation, the location of the most medial and proximal pain, and the presence of crepitus are the key to diagnosis.

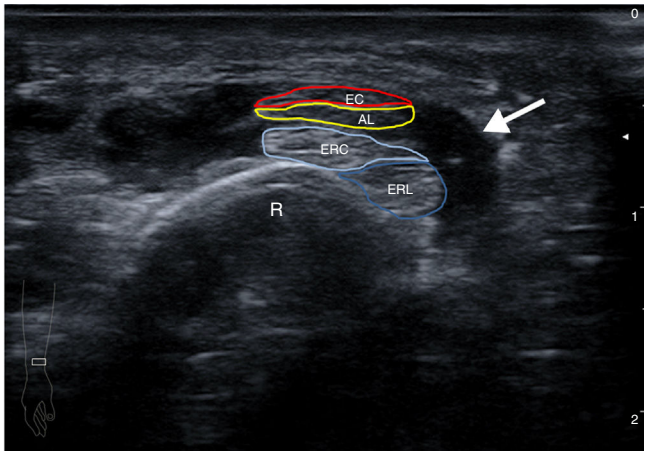

Image 1. Transverse ultrasound image of the distal region of the right forearm. Showing tenosynovitis (arrow) of the tendons of the I and II extensor compartment as they cross. AL: abductor longus of the first finger; EB: extensor brevis of the first finger; ECRB: extensor carpi radialis brevis; ECRL: extensor carpi radialis longus; R: radius.

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