



Acute extensor hallucis longus tenosynovitis caused by gonococcal infection

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We report here an unusual case of acute septic extensor hallucis tendon tenosynovitis caused by *Neisseria gonorrhoeae*, not associated with arthropathy, septic arthritis or other manifestation of disseminated gonococcal infection. To our knowledge there has been no such case reported before.

Case report

A thirty-eight-year-old female was admitted with a swollen, painful, right foot.

She gave a history of gradual deterioration of pain and discomfort in the right foot one week after arrival from a trip to a Pacific Island, eventually becoming unable to bear weight on it. There was no history of trauma, gout or systemic arthritis.

The patient had vaginal and cervical swabs undertaken by her general practitioner for gonorrhoea six months prior to her presentation and these were repeated one week before her presentation; both sets of results came back negative.

Examination findings revealed that she was afebrile with no skin rash and the pertinent findings were restricted to her right foot.

The dorsum of the right foot was red, warm and swollen. The swelling extended to the ankle joint area. The patient experienced marked tenderness along the extensor tendon sheath, particularly the extensor hallucis longus (EHL) tendon. Pain was induced mainly by passive plantar flexion of the big toe. The ankle joint movement was relatively restricted.

Blood tests showed a white blood count of 12.2 E9/l , an ESR of 70 mm/hr and normal serum uric acid.

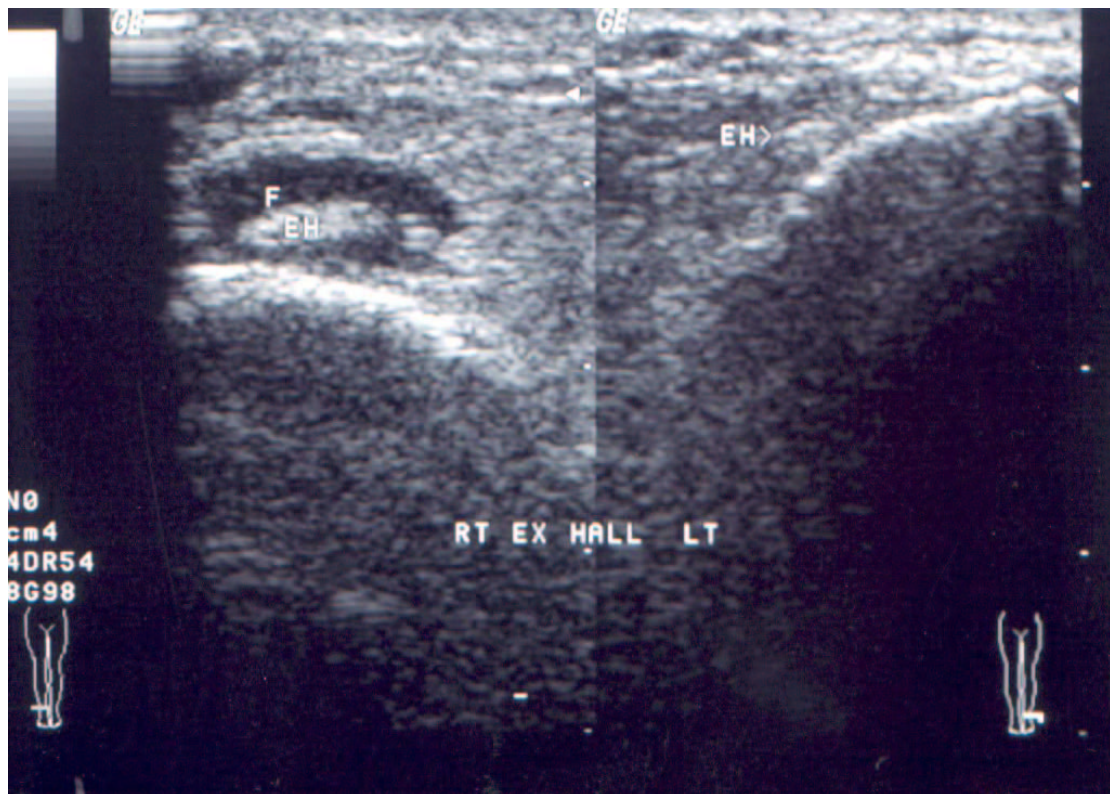
A radiograph of the foot revealed moderate soft-tissue swelling around the ankle and dorsal aspect of the foot. There was no bone or joint involvement.

Ultrasound examination of the right foot demonstrated subcutaneous oedema of the dorsal aspect of the foot and a moderate amount of fluid around the EHL tendon, but the tendon itself appeared normal in size and moved freely. No ankle joint effusion was seen on the scan (Figure 1).

A provisional diagnosis of acute EHL tenosynovitis was made. To confirm the diagnosis and the nature of the tenosynovitis, a needle aspiration was performed under ultrasound guidance. A small amount of fluid was aspirated and sent for culture and sensitivity. This came back with heavy growth of *Neisseria gonorrhoeae* sensitive to ciprofloxacin.

The patient was treated successfully with oral ciprofloxacin then referred to the sexually transmitted diseases clinic for further management.

Figure 1. Coronal section of ultrasound examination of extensor hallucis longus of both sides showing the fluid inside the right tendon sheath



Discussion

Disseminated gonococcal infection can produce an inflammatory reaction in the joints and synovial membranes. It is usually associated with polyarthropathy, affecting the wrist and the knee joints.^{1,2} The ankle, shoulder, elbow and small joints of the fingers and toes can also be involved.³

Keiseler,³ Harris,⁴ and Colin and Weissman⁵ described inflammation of the extensor tendon of the hand, but in all these cases joints were involved.

Schaefer et al reported a case of acute flexor gonococcal tenosynovitis of the middle finger with symptomatic gonococcal pharyngitis in a 15-year-old boy.⁶

Ultrasound is a quick and effective way to differentiate between joint infection and infected tendon in the ankle or wrist areas where fluid accumulation is the clue to the infected site.

Intervention ultrasound yields accurate placement of the needle tip and subsequent aspiration of the tendon sheaths or joint spaces.^{7,8}

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