Acute Tibial Compartment Syndrome secondary to psychosomatic disorder

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SUMMARY: A case of a 28 years old Caucasian woman is presented with acute tibial compartment of her left leg secondary to repeated self inflicted soft tissue injuries, together with literature review on Dermatitis Artefacta.

Introduction
Dermatitis artefacta is a psychosomatic disorder characterised by self inflicted skin lesions which the patient denies doing (1). The lesions vary but can include erythema, soft tissue swelling, bruising, lacerations of unusual shapes or bizarre pattern, burns and gangrene.

We report an unusual presentation in the form of recurrent soft tissue injuries to the legs presenting as full blown acute tibial compartment syndrome.

Case History
A 28 year old caucasian woman presented with an acutely swollen painful left leg and progressive paraesthesia across the sole of her left foot. A clinical diagnosis of a left posterior compartment syndrome was confirmed with elevated compartment pressure readings of 47 mmHg on the left and 18 mmHg on the right.

Emergency posterior fasciotomy was carried out and a deep haematoma evacuated. The muscles were markedly swollen but there was no evidence of infarction. Despite intensive postoperative physiotherapy the patient developed a flexion contracture of her left ankle and eventually underwent posterior release, with elongation of the Achilles and flexor pollicis longus tendons.

Three years previously, she had four compartment release operations in her left leg for a similar episode. Eighteen months prior to that, she had the same problem in her right leg which also required four compartment fasciotomies.

She alleged then that her problems had occurred spontaneously, and it was felt then that this could be an idiopathic compartment syndrome. On this occasion, after initial denial, the patient eventually admitted that she could have hit her left leg in anger against the furniture during an argument with her brother following an episode of heavy drinking.

Discussion
A compartment syndrome is a condition in which increased pressure within a closed space compromises neuromuscular function within that space. Tibial compartment syndromes transcend several medical disciplines. They usually follow lower extremity fractures and soft tissue damage, particularly after crush injuries. They can also occur secondary to major vascular trauma, burns, hypothermia and bleeding disorders (2).

In this case, an acute compartment syndrome occurred secondary to repeat soft tissue injury to the legs which were self induced by the patient as an expression of her anger.

There was no obvious psychiatric ailment between these episodes and she led what appeared to be a fairly normal life style with a regular job as an office clerk for the preceding 10 years. This led us to believe initially that compartment syndrome had developed spontaneously. She was interviewed during her last admission by the community psychiatric nurse, but declined to see a psychiatric specialist.

Sneddon in 1975 followed up 43 patients with self inflicted injuries (3). He found that 30% were disabled with other psychiatric disorders more than 12 years after the onset of symptoms.

He also reported that recovery seemed to occur with a change in the patient's life circumstances rather than as a result of treatment.

Sheppard in 1986 reported 35 cases with psychogenic skin disease (4). All but two initially presented for dermatological opinion. Twelve refused psychiatric referral.
His findings were similar to Sneddon's and he felt that this group of patients presents an important cause of psychiatric morbidity.

Lyell in 1976 had reviewed possible reasons for the reluctance of doctors to make a diagnosis of Dermatitis Artefacta (5). They include an inability to believe that patients, especially the respectable and the intelligent ones, might wilfully deceive them. Fear of missing organic disease (coupled with the fact that bizarre lesions suggest rare diseases) led many doctors to continue searching for a physical cause.

REFERENCES