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BILATERAL HALLUX SALTANS

Report of a Case

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A case of bilateral hallux saltans in a 13-year-old girl is reported. The signs and symptoms were a tender nodule behind the medial malleolus and a "trigger toe" as well as pain radiating up the lower leg. Operation revealed thickening of the flexor retinaculum superficially to the flexor hallucis longus tendon which showed compression and proximal thickening. Resection of the retinaculum afforded a satisfactory result.

Key words: hallux; tendons; tenosynovitis

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Digitus saltans is a well-known condition of the fingers with a tender nodule and "trigger finger" (Fogh-Andersen 1947, Fahey & Bollinger 1954, Weilby 1970). This disorder affects only the flexor tendons (Crawford Adams 1971). The pathogenesis is thickening of the entrance to the tendon sheath and local compression of the tendon with spindle-shaped thickening of the tendon proximally (Kolind-Sørensen 1970, Weilby 1970, Crawford Adams 1971). The disease most often affects the thumb (Weilby 1970, Hueston et al. 1973). A related condition is de Quervain's tendovaginitis (Crawford Adams 1971, Faithfull & Lamb 1971). In this disorder "trigger finger" is very rare (Liavaag 1945).

To our knowledge only a single case of *unilateral* digitus saltans on the feet has previously been reported (Lewin 1941).

We have observed a case of *bilateral* digitus saltans of the big toe. The present paper deals with this case.

CASE REPORT

For 2 years a 13-year-old, healthy girl had been suffering from pain localized to the flexor aspect of the left great toe and the first metatarsal bone, radiating up along the posteromedial part of the lower leg, most severe after walking for a long period. The patient reported a clicking sound on bending the great toe upwards, and at the same time it would suddenly snap up. Physical examination showed a typical snap in the left great toe on hyperextension and a tender nodule behind the medial malleolus, approximately where the click could be located. No other abnormalities were found, in particular no sign of hallux saltans on the right foot. Eight months previously the patient had been treated, ineffectively, with Brufen® (ibuprofen) and ultrasound.

Operation revealed thickening of the flexor retinaculum behind the medial malleolus over the left flexor hallucis tendon (Figure 1). Proximally to the retinaculum the tendon showed spindle-shaped thickening extending for $1\frac{1}{2}$–2 cm. The retinaculum was divided in its proximal 3 cm, and in this area there was narrowing of the tendon indicating compression. Before the retinaculum was divided there was definite difficulty in tendon movement which after its division was normal.

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When seen 7 months postoperatively the patient had no remaining signs of hallux saltans, nodule, or tenderness, and the mobility of the great toe was normal.

On the right foot, however, there was now a recently developed, tender nodule behind the medial malleolus and an audible click on movement of the right great toe. There was a slight snap in the toe on hyperextension during simultaneous plantar flexion of the ankle joint, but no pain. The complaints were so mild that it was decided to adopt an expectant attitude.

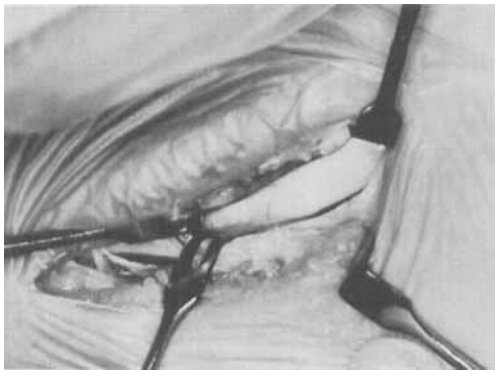

Figure 1. The flexor hallucis longus tendon with its compressed part corresponding to the flexor retinaculum.

DISCUSSION

Bilateral hallux saltans has not been described previously; however a single case of unilateral digitus saltans of the big toe caused by tenosynovitis of the flexor hallucis longus tendon has been reported in the literature (Lewin 1941). In our present case there was no history of trauma (Burman 1953, Weilby 1970). The patient had been riding once weekly for several years, but had not been exposed to any unusual strain (Lewin 1941, Martens et al. 1968, Weilby 1970). No similar conditions were observed in her two elder siblings or in her parents, and the family history was negative for rheumatoid arthritis and diabetes mellitus, conditions that may predispose to trigger fingers, de Quervain's disease and trigger wrists (Liavaag 1945, Weilby 1970, Davalbhakta et al. 1972).

The pathogenesis appears to be, in analogy to de Quervain's disease, thickening of the retinaculum. The changes of the tendon must be secondary to those of the retinaculum.

At follow-up incipient hallux saltans was observed on the right side. The fact that the disease was bilateral and that no traumatic or systemic aetiology could be found may indicate that the disease was caused by a congenital retinacular anomaly. In this connection it should be mentioned that the patient did not exhibit signs of retinacular disease in other locations.

The treatment, in cases causing severe symptoms, is resection of the retinaculum.

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