Case Report

LONG ACCESSORY FLEXOR DIGITORUM LONGUS MUSCLE
(accessory flexor muscle)

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ABSTRACT

A case of an uncommon muscular structure related to the flexor digitorum longus muscle is reported. This muscular structure originated from the medial border of the tibia below the origin of the flexor digitorum longus muscle. It was a small muscle with a long slender tendon which inserted into the common tendon of the flexor digitorum longus muscle on its lateral side. Accessory muscles of the calf region would be of clinical importance in tarsal tunnel syndrome.

Key Words: Tarsal tunnel, Accessory, Flexor digitorum longus muscle

INTRODUCTION

While dissecting the calf region, a long accessory flexor digitorum longus muscle was observed on the right side of a female cadaver. It had a long slender tendon which inserted into the lateral border of the common tendon of the flexor digitorum longus muscle. Accessory muscles of this region can cause some clinical problems. The tarsal tunnel syndrome is the most important one (1, 2). The anomalies of the accessory muscles can be ethiological and the detection by MRI may give clinicians the chance to avoid unnecessary and invasive methods for diagnosis and treatment (3).

CASE REPORT

The calf region of a female cadaver was dissected. The flexor digitorum longus muscle was in its normal position and course (4). In addition to this, there was an anomalous long accessory muscle which originated from the medial border of the tibia just below the origin of the flexor digitorum longus muscle. The tendon of the accessory muscle extended under the flexor retinaculum, then passed lateral to the flexor digitorum longus muscle and crossed posteriorly. It descended and inserted into the lateral border of the common tendon of the flexor digitorum longus muscle (Fig. 1). The flexor accessorius muscle (quadratus plantae) was rudimentary in the right (same side) extremity. The lateral head was absent and the medial head was found as a thin muscular slip (Figs. 2, 3).
Fig. 1: Anomalous long accessory muscle originating from the medial border of the tibia.
1. Accessory flexor digitorum longus muscle
2. Flexor digitorum longus muscle
3. Tibialis posterior muscle
4. Flexor hallucis longus muscle
5. Tendon of the accessory flexor digitorum longus muscle
6. Tendon of the flexor digitorum longus muscle
7. Abductor hallucis muscle
8. Flexor hallucis brevis muscle
9. Tendon of the flexor hallucis longus muscle
10. Tendons of the flexor digitorum longus muscle
11. Flexor accessorius muscle (quadratus plantae muscle)

Fig. 2: Medial head of the rudimentary flexor accessorius muscle (quadratus plantae) as a thin muscular slip (the lateral head was absent).
6. Tendon of the flexor digitorum longus muscle
9. Tendon of the flexor hallucis longus muscle
11. Flexor accessorius muscle (quadratus plantae muscle)
The long accessory flexor digitorum muscle is one of the variations of the calf (2). These variations would be diagnosed by MRI with the accurate attachments of the muscle and the relation of this muscle to the tibial nerve and its branches without a need for a surgical examination (1, 3, 10, 11). This provides important information in planning the therapy.

REFERENCES


