Introduction
The posterior compartment of the leg constitute of three deep muscles; flexor hallucis longus, flexor digitorum longus and tibialis posterior. Accessory muscle in the deep compartment of the leg is a rare entity. It has been observed in the posterior compartment as either a swelling in the medial aspect of the leg in children or as pain in the medial side of the leg during tarsal tunnel syndrome or muscle entrapment. Accessory flexor digitorum longus [1–3] as well as accessory flexor hallucis longus [4], has its origin from either tibia, fibula or the popliteus, or all the above structures. Most of the above authors had common findings that the accessory muscle tendon was attached to the quadratus plantae. But the present case, on the contrary, shows an alternate attachment of the accessory flexor digitorum.

Case Report
During the routine dissection of the lower limb of a 53-year-old male cadaver of Indian origin, “an accessory muscle” was observed on the medial side of the posterior compartment as either a swelling in the medial aspect of the leg or as pain in the medial side of the leg during tarsal tunnel syndrome or muscle entrapment. Accessory flexor digitorum longus [1–3] as well as accessory flexor hallucis longus [4], has its origin from either tibia, fibula or the popliteus, or all the above structures. Most of the above authors had common findings that the accessory muscle tendon was attached to the quadratus plantae. But the present case, on the contrary, shows an alternate attachment of the accessory flexor digitorum.

Key words: (flexor digitorum longus) (flexor hallucis longus) (quadratus plantae) (accessory muscle)

Discussion
Pac and Malinovsky, have suggested that the accessory muscle of the flexor digitorum longus and its link to the flexor hallucis longus are evidence of regressive varieties [5].

Eberle et al. have described an accessory flexor digitorum longus which produced flexor hallucis syndrome [6]. Such a muscle can be easily detected by the non-invasive MRI techniques [6,7].

In the present case the accessory muscle joining both the flexor digitorum tendon and a slip of the flexor hallucis longus with its insertion at the 2nd toe indicates that the muscle is accessory flexor digitorum, which could be named as ‘flexor digitorum tertius’. Its origin from lateral side in the lower third of the leg. Under the flexor retinaculum it occupied a position posterior to the flexor hallucis longus tendon in a separate synovial sheath (Figure 2). In the sole, the tendon in the right and the left leg took different course. In the left leg, the accessory muscle tendon ran parallel to the flexor hallucis tendon and joined with a slip from the flexor hallucis tendon and the flexor digitorum longus to final insertion at the 2nd toe (Figure 3). On its way to join the flexor digitorum it also received muscle insertion of the quadratus plantae. In the right leg however, the tendon in the sole got inserted to the calcaneus and send fibrous insertions to the quadratus plantae, the tendon of the flexor digitorum longus as well as flexor hallucis longus (Figure 4).


the swelling in the medial side of the leg or pain due to the entrapment of the tendon as in flexor hallucis syndrome. The accessory muscle tendon can also be useful during the tendon transfer of the muscle in the posterior compartment.

References


