# EXTENSOR DIGITORUM BREVIS IN HAND

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**Abstract :**

Two cases of the presence of Extensor digitorum brevis in hand are presented.

Cadaver No. 1—During routine dissection the tendon of Extensor indicis was absent from its normal position in the fourth compartment under the extensor retinaculum of hand. Instead one fleshy belly was seen on the dorsum of both hands. The origin of the belly was aponeurotic from dorsal radiocarpal and intercarpal ligaments. The fleshy belly gradually became tendinous and was seen to pass along the medial side of Extensor digitorum tendon for the index finger, forming the extensor expansion. The muscle was bigger in the right hand (Fig. 1). The nerve supply was from terminal part of deep branch of radial nerve.

Cadaver No. 2-One fleshy belly was seen on the dorsum of hand, supplementing the tendon of Extensor digitorum for the middle finger. It was present only in the left hand. The origin of the muscle was aponeurotic from radiocarpal and intercarpal ligaments. The muscle was crossed superficiallp by the tendon of Extensor indicis. The fleshy belly became tendinous to join Extensor digitorum for the middle finger from its lateral side. The nerve supply came from terminal part of deep branch of radial nerve (Fig. 2).

**Discussion :**

Since the presence of Extensor digitorum brevis muscle is accompanied by absence of Extensor indicis, it could be a case of caudal migration of Extensor indicis muscle. According to Keith, the mechanism which brings about the migration and the biotactic influence which is at work is unknown. The muscle is bigger in the right hand because of one sided dominance. Pande and Singh (1971) have substantiated the study of one sided dominance (1971) Bhandari et al (1976) have described the bilateral presence of Extensor digitorum brevis for the middle finger only. Schaffer (1953) also described the presence of this muscle. Fontes, quoted by Schaffer (1953) has also described the presence of this muscle in 9% of cases. The muscle may have one to four fasciculi, the one which goes to the index and the middle fingers are frequently seen. In the lower primates, each finger has a deep and a superficial extensor. The deep in the index finger becomes Extensor indicis and in the little finger, Extensor digiti minimae. The deep extensor of the third and fourth digits disappears but occasionally reappears. In the leg, deep extensors have migrated to the foot to form Extensor digitorum brevis (Keith). The presence of Extensor digitorum brevis for the middle finger (second case) is a case of occasional reappearance of the deep extensor of third digit. The presence of the muscle only in the left hand cannot be explained. The rare presnece of extensor digitorum brevis in the hand gives it morphological resemblance to the foot.

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Fig. 1. Bilateral presence of Extensor digitorum brevis with nerve supply.

Fig. 2. Extensor digitorum brevis for the middle finger in left hand with its nerve supply.

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