

RARE ANOMALY OF PALMARIS LONGUS MUSCLE

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ABSTRACT:

One case of morphologically abnormal palmaris longus muscle is presented.

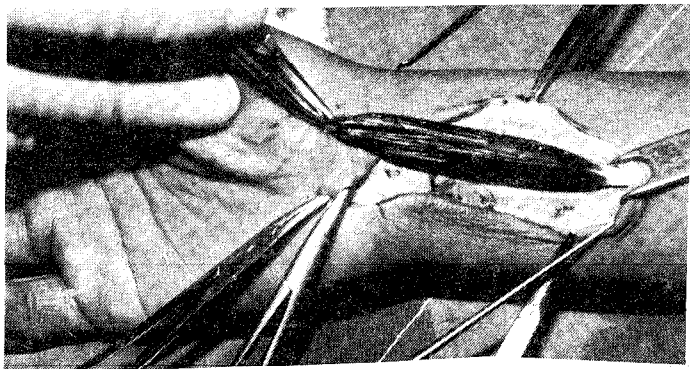
INTRODUCTION :

Anomalies of palmaris Longus muscle are well known. It is found absent in 13% of the dissected bodies, while the percentage of different anomalies range from 0.8% to 2%. The anomaly reported here is only one of its kind and is not found in the studied literature.

CASE REPORT :

A 23 year old unmarried girl reported with a swelling over the volar aspect of wrist of 4 years duration. The swelling was occasionally painful, and was situated over the palmaris longus tendon area and had bluish hue. It was 2 cm in length and 1.5 cm in breadth. It was tender, soft, non reducible and became more prominent after extending the wrist. The swelling was free from skin but had very little side to side movement.

With the provisional diagnosis of 'ganglion' the swelling was explored and it was found to be a muscle tissue winging on either side of the palmaris longus tendon. Incision was then extended proximally to visualise the palmaris longus, where it has its normal muscle belly in proximal 1/3 of the forearm. It was a palmaris longus muscle belly in normal anatomical place with one extra muscle belly distally. The distal belly was sent for histopathological study and was reported as normal skeletal muscle tissue.



Photograph showing

Palmaris longus muscle with its tendon.

DISCUSSION :

Palmaris longus muscle is a phylogenetically degenerating muscle with the typical characteristics like 1) Short belly, 2) Long tendon, 3) Insertion replaced by aponeurosis and 4) Minimal function.

In apes, monkeys and Gorillas this muscle is a strong flexor of the fingers with large belly and short tendons. During evolution as the flexor digitorum sublimis & flexor digitorum profundus are effectively flexing the phalanges, palmaris longus belly has become small, tendon slender and distal part of it aponeurotic. Common variations found in palmaris longus are :-

- 1) Absent 13% (7 to 20%)
- 2) Abnormal site of origin from other bone or muscle septa.
- 3) Abnormal insertion to pisiform or scaphoid.
- 4) Proximal tendon and distal belly.
- 5) Only fibrous strand with muscle belly.
- 6) Double belly or double tendon 0.8%.
- 7) Centrally placed belly.

It can be explained on embryological grounds to get a palmaris longus muscle with one belly proximally, one belly distally and a normal tendon in between the two belys. But, this entity is as yet not reported. The second author of this paper is teaching anatomy for more than 20 years and has seen about 2000 dissected bodies, and has not yet encountered this anomaly, hence, this first case is reported.

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