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AN UNUSUAL CONGENITAL DEFORMITY OF THE HAND
COMBINED WITH SUPERNUMERARY TOES

A CASE REPORT*

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Supernumerary toes and fingers are not uncommon, having a hereditary basis in a great majority of cases which may be traced through several generations. They frequently exist both on the hand and foot. Generally they are marginal, less often central. There is seldom any great difficulty, with the aid of the x-ray, in deciding which digits are superfluous. It sometimes happens that the supernumerary digit and its metacarpal or metatarsal is more or less perfect and closely united with another. This condition is seen more often in the thumb.

The following case is concerned with a rare malformation of the hand caused by fusion of a supernumerary metacarpal to the lateral ulnar margin of the fifth metacarpal. This deformity was unsightly and interfered with the normal function of the hand. The patient also presented a supernumerary sixth toe on each foot. The favorable results following operation prompted a report of this case.

CASE REPORT

H. H., age nineteen, female, was first seen by the writer on March 4, 1930. She presented supernumerary toes on both feet and an osseous deformity of the left hand existing since birth. When four months of age, the sixth finger was removed from the left hand by the family physician, but apparently the metacarpal remained. As she grew older, a bony prominence was observed, projecting from the outer border of the hand.

A brother has a supernumerary toe on each foot. He had a sixth finger on each hand which was removed immediately after birth.

Her previous medical history is irrelevant. Aside from a low-grade mentality and a chronic sinusitis, this patient is normal.

The hand revealed a projection, angular in character, extending in an ulnar direction, with the skin creased over the apex. The metacarpophalangeal joint had a restricted range of motion, the distal phalanx curving radially. The feet presented six toes, the sixth toe on each foot overlapping the fifth.

An x-ray examination of the left hand revealed a rather striking deformity of the fifth metacarpal. There was a distinct bony outgrowth from the ulnar aspect of the fifth metacarpal which was an integral part of the bone. The medullary canal and the cortex of the outgrowth were continuous with the metacarpal. The base was broad, while the head was of normal size and was in close contact with the head of the adjacent metacarpal. The interosseous space between the fourth and fifth metacarpals was wide because of the increased outward convexity of the malformed metacarpal.

X-ray examination of the feet showed the following: *Right*—From the internal aspect of the base of the proximal phalanx of the fifth toe was seen a bony outgrowth similar to that described in the hand. A small and what was apparently a distinct phalanx of the supernumerary toe articulated with this exostosis. *Left*—The condition here was somewhat different. There was an entire supernumerary toe consisting of three phalanges, the normal fifth toe and the supernumerary toe both articulated with the fifth metatarsal.

*Presented before the Medical League Association, Philadelphia, Pa., May 26, 1930.



FIG. 1

Supernumerary metacarpal before operation.



FIG. 2

Result after operation.

The patient was admitted to the hospital on March 5, 1930, for operation. Wassermann was negative; urine and blood showed nothing abnormal.

Operation was performed the next day under nitrous-oxid anaesthesia. An incision, three inches long, was made over the ulnar aspect of the left hand; the soft tissues were dissected away from the bony outgrowth, bringing it clearly into view. A narrow periosteal flap with the base at the proximal end of the fifth metacarpal was dissected clear from the bone and retracted upward. The deformity consisted of a hard flattened plate of bone which extended outward for about an inch from the interosseous border of the fifth metacarpal. The angular projection was chiseled away flush with a line drawn from the base of the fifth metacarpal to the head. Considerable difficulty was encountered in removing this osseous deformity because of its ivory-like hardness. The edge of the bone was then filed smooth and the flap of periosteum was sutured over it with No. 0 catgut. Hemorrhage was slight and controlled by ligature. Interrupted sutures of No. 1 chromic catgut were used to unite the overlying muscle. The redundant skin was left intact and sutured by dermal sutures. Sterile dressing and splint were applied to the hand.

The fifth and sixth toes of each foot were disarticulated by the racket incision. The reasons for removing both the fifth and sixth toes were the extreme width of the foot and the fact that if only one toe was removed there would have still remained a malformation which would have given rise to trouble later on.

The postoperative course was uneventful. The sutures were removed on the ninth day and the patient discharged March 18, 1930, in good condition. X-ray examination of the hand after operation revealed complete removal of the supernumerary metacarpal.

The results obtained in this case both from a functional and cosmetic standpoint are highly satisfactory.