

CUSTOM-BUILT SILICONE PHALANGEAL IMPLANT

(A case report)

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(Key words : Silicone implant, Phalangeal replacement.)

A young 24 years old girl with a history of osteoclastoma of the proximal phalanx of the right little finger operated twice before, was referred with recurrence involving the whole phalanx. (fig. 1). The patient who works as a typist, was very anxious to preserve her finger and refused an amputation. Hence it was decided to replace the whole phalanx with a silicone phalangeal implant (fig. 2). A custom-built implant was made for her from medical grade

silicone. The mould was prepared by taking an impression from a cadaveric bone of similar size.

The phalanx was approached from a dorsal incision. It was removed in toto and replaced by the pre-fabricated silicone substitute. Very careful repair of the capsules of both joints was carried out. The hand was splinted for a period of three weeks and mobilized gradually. Her histopathology report showed a recurrent giant cell tumor of the proximal phalanx of the right little finger.

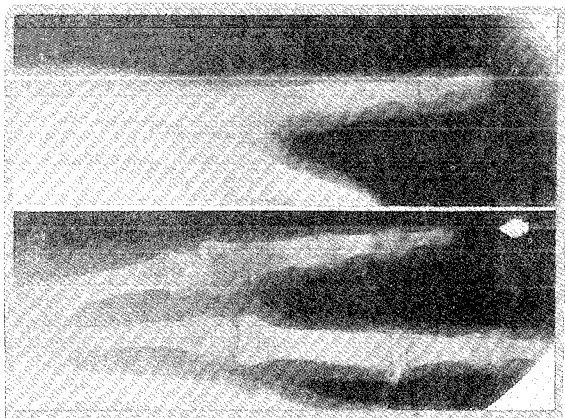


Fig. 1 Pre-operative x-rays of right little finger showing a giant cell tumor of the proximal phalanx.

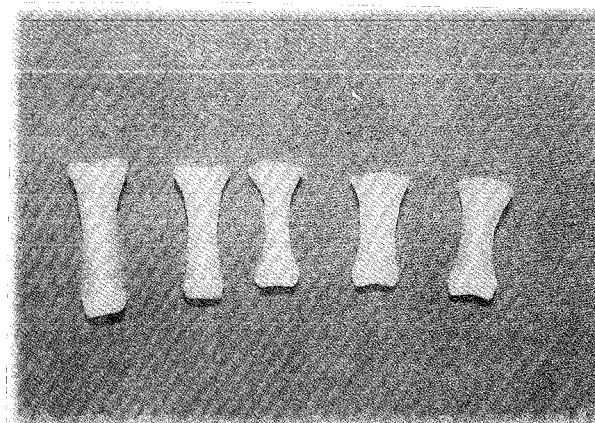


Fig. 2 Various sizes of silicone phalangeal implants.

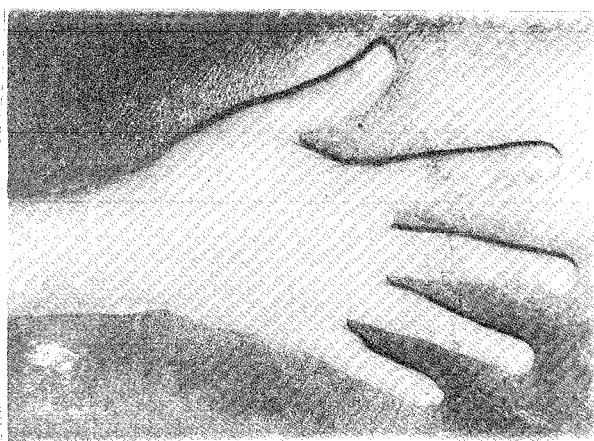


Fig. 3 Post-operative, dorsal view of right hand.

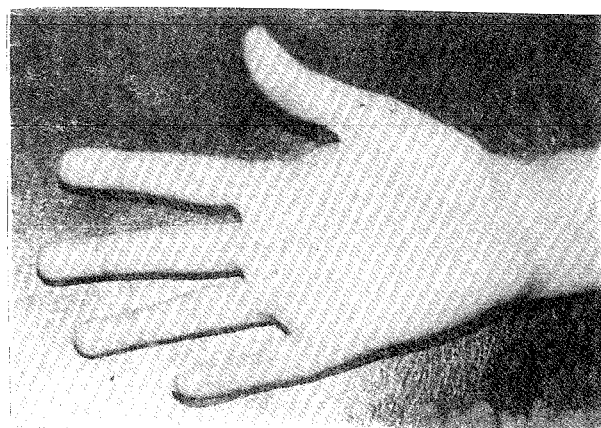


Fig. 4 Post-operative, volar view of right hand.

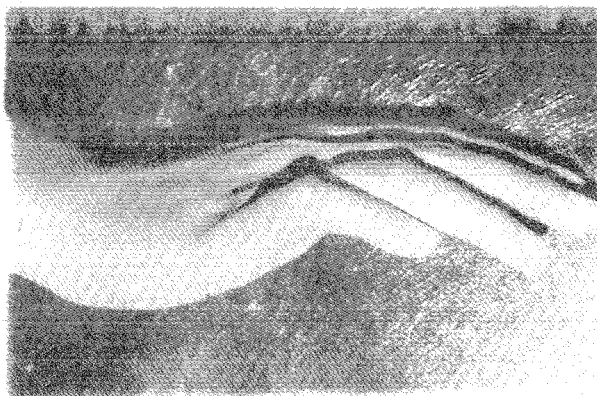


Fig. 5 Post-operative, lateral view of right hand.

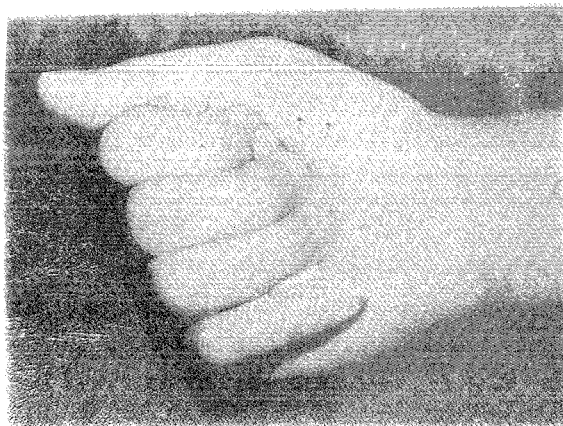


Fig. 6 Full-flexion, right hand.

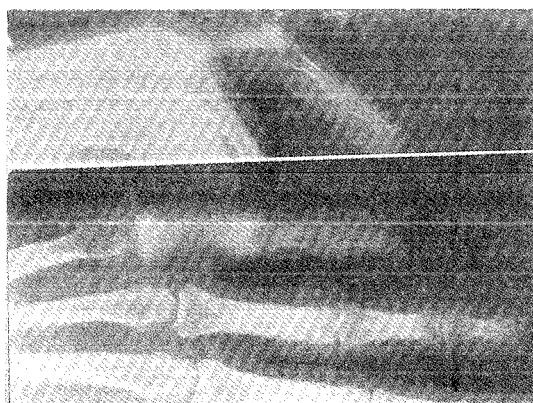


Fig. 7 Post-operative x-rays of right little finger.

Observations

She had a reasonably good functioning little finger except for a slight flexion deformity of the proximal interphalangeal joint. (fig. 3, 6). She could flex and extend her finger, had good power in her grip and was extremely pleased with her result.

She could go back to her work as a typist. X-rays of her right hand after 1.5 years showed a slight dorsal dislocation of the proximal interphalangeal joint. (fig. 7).

Conclusion

This is just a single case report to show that in certain cases, especially in which a giant cell tumor has remained within the cortex of a phalanx, a finger can be salvaged by the use of a custom-built silicone phalangeal implant.

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