

Towards Fulfilling the Reconstructive Surgical Needs of Children

An initiative of Ganga Hospital, Coimbatore

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Editorial

From Dreams to Reality: Celebrating Ganga's Little Achievers



Soon to be Dr Namratha !

As we were planning the November issue of our 'Ganga Little Hands', we realized that it is the month when Children's Day is celebrated in our country. This month, we would like to dedicate the issue to all children who by nature or by accident became differently abled, but by perseverance, tenacity and hard work overcame all odds and made significant achievement in all that they undertook. They serve as an inspiration for even adults who face such problems.

When we see such children achieve, it becomes a celebration for everyone – the child, the parents, and the surgical team. It helps us keep going. In this issue, we share the story of Ms. Namratha who suffered a freak electrical burns accident and lost all the function of her right hand. Following reconstructive surgery, she joined one of the All India Institute of Medical Sciences (AIIMS) to pursue a career in medicine making us all feel very proud.

Achieving a goal against the odds can bring a profound sense of accomplishment and fulfilment. Namratha's story which follows can serve as a beacon of hope for others facing their own challenges, demonstrating that perseverance can lead to achievement, and victory is within anyone's reach. This issue is a tribute to all such children and their families. We salute their tenacity and commitment to the goal. At Ganga, we feel proud that we have the opportunity to play a part in their quest for excellence.

Dr S Raja Sabapathy
Dr Monusha Mohan
(Editors)

Hand in Hand - The Journey with our Little Achiever

We met an anxious 14-year-old bright school student, accompanied by her equally anxious parents, in our outpatient clinic, four years ago. The girl, whose father dreamt of seeing her as a doctor in future, was not prepared for the unfortunate accident that occurred while she was playing on the terrace. She accidentally touched the electric wires with an iron rod and sustained electrical burns to both her upper limbs. She was immediately carried to a local hospital where the wounds were treated. But when the wounds were not manageable, she was referred to us for specialised care which the wounds demanded.



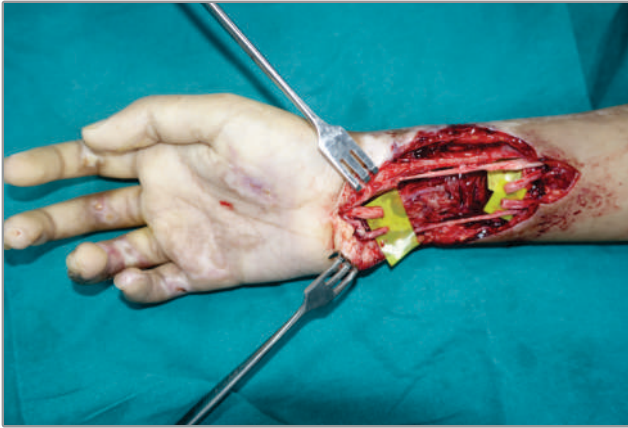
The presenting image of the forearm wound with sloughed out and exposed flexor tendons and nerves. The hand was without sensation and no flexion of the fingers was possible.

We debrided the wound, and covered the defects on the flexor aspect of the distal forearm with an abdominal flap and the ring finger with a cross-finger flap. The flaps were divided after 3 weeks.

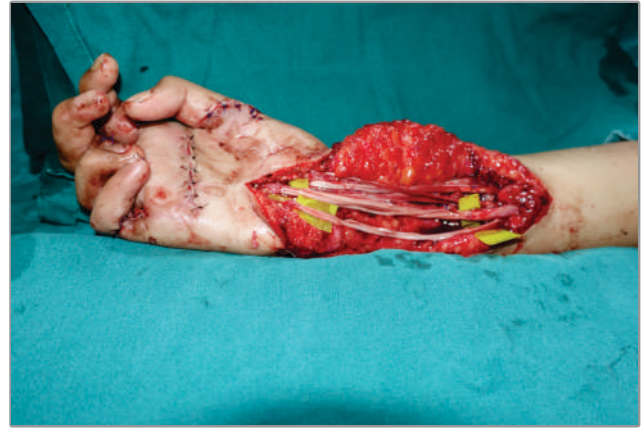


The debrided wounds in the forearm and ring finger were covered with abdominal and cross finger flaps respectively

After 6 months, the gaps (12 cm each) in the long flexors of all the fingers (flexor digitorum profundus) and thumb (flexor pollicis longus) and flexor carpi radialis were bridged using fascia lata graft harvested from her thigh. The thumb opposition was achieved by using the flexor carpi ulnaris as a motor and extended with tendon graft (opponensplasty). The median and ulnar nerves had a gap of 10 cm each. The gaps were bridged using long sural nerve cable grafts; three cables each. She underwent two more surgeries mainly bony procedures for the phalanges.



The gaps in the median and ulnar nerves



The long gaps in the flexor tendons and nerves were bridged with fascia lata graft and sural nerve cable grafts

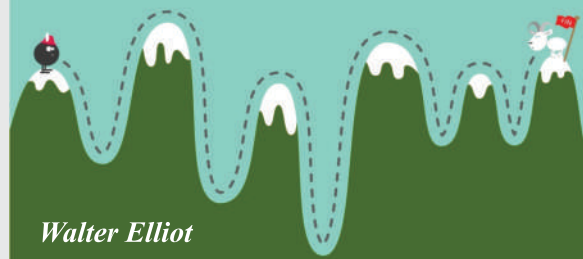
About 1.5 years ago, her hand function was evaluated. She had good recovery of sensations and her hand function had improved considerably. She was independent in all her activities.

She recently called us to share the good news that she has got selected for MBBS in AIIMS, Mangalagiri. When we rang them to get permission for using the photographs and the story to inspire others, her father said, ‘She is your child. Please go ahead’. We wish her well. Little achievers like her are an inspiration to all of us at Ganga.



Photo taken after the abdominal flap settled

*Perseverance is not a long race;
it is many short races one after the other.*



Walter Elliot

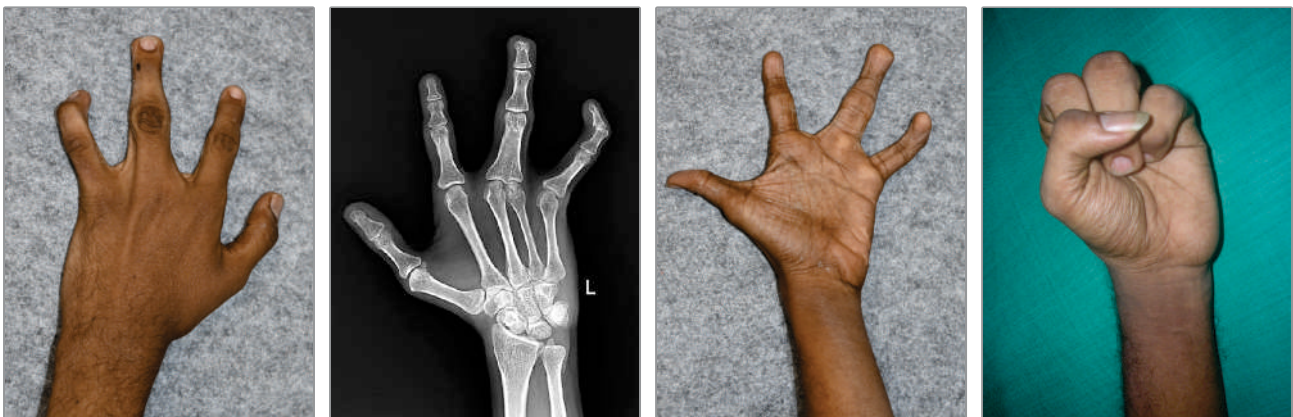
Did you know?

Super Digit

Super Digit is a congenital anomaly, and the term was coined by Dr Virchel Wood, of Loma Linda University in California. A super digit is a finger supported by two metacarpals or a single metacarpal supporting two fingers. The single finger on top of the two metacarpals is usually broad. Wood advised against surgery to split the enlarged digit into two.

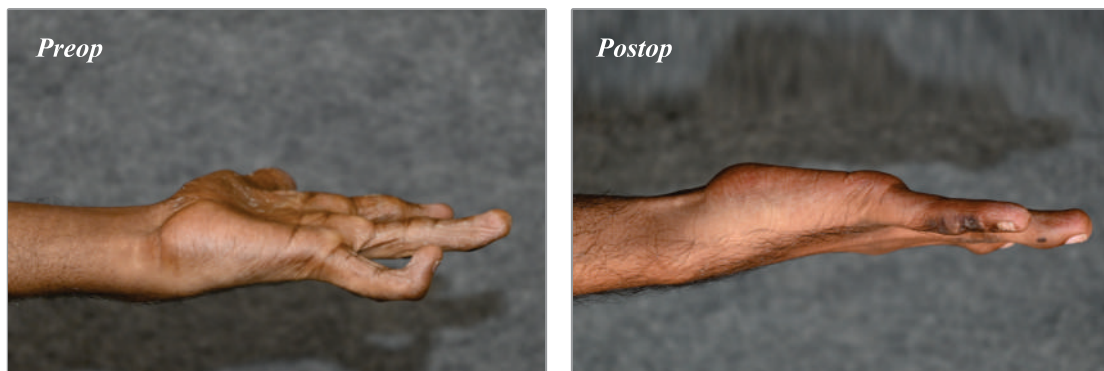
<i>The Pediatric Upper Extremity</i>	0749-0712/90 \$0.00 + .20
Super Digit	
<i>Virchel E. Wood, MD*</i>	
<p>The "super digit" represents a clinical entity that I have named after seeing and treating hundreds of various congenital deformities over 25 years. Although it may be a conglomerate of different syndromes and anomalies with no spe-</p>	<p>in a hypoplastic angulated nonfunctional digit (Fig. 8A and B). We found 14 digits that fit into this category, with many variations. Those metacarpals that definitely supported a normal digit with an associated polydactyly were ex-</p>

Wood VE. Super digit. Hand Clin. 1990;6(4):673-684.



Super Digit

This 27-year-old gentleman, had no complaints regarding the cosmesis of his four-digit hand. But he was worried about the flexion deformity of the distal interphalangeal joint of the little finger. We explored the extensor aspect of the joint to find that the tendon was inserted onto the middle phalanx instead of the base of the distal phalanx. We arthrodesed the distal interphalangeal joint and the patient, a medical data analyst, was happy with the functional result.



Clinician's Corner

Ulnar Dimelia or Mirror Hand

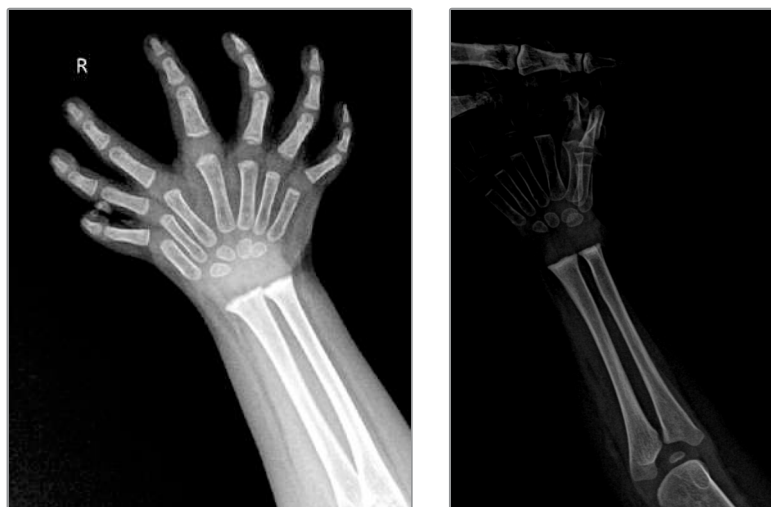
A baby with multiple fingers, absent thumb and wrist/elbow flexion deformities should be evaluated for Mirror hand or Ulnar dimelia. Radiographs will show a duplicated ulna and the child with multiple digits should not be diagnosed with ulnar dimelia without seeing an X-ray. If there are many fingers, but the child has radius and ulna, then the diagnosis of supernumerary fingers is used. The other findings are absence of thumb, scaphoid and trapezium with duplication of ulnar half of the hand and carpal bones.

Ulnar dimelia is very rare. In anomalies that occur beyond 100 000 live births it is not the practice to give an incidence per 100 000 live births. Ulnar Dimelia is one such rare condition. The more popular term, mirror hand is not encouraged as absolute symmetry is uncommon. The extra digits are removed and the chosen finger is pollicized to make a new thumb. Pollicization can correct the appearance as well as create a thumb. In fact, Buck Gramcko who performed the first true pollicization, did it for a 5-year-old with ulnar dimelia.

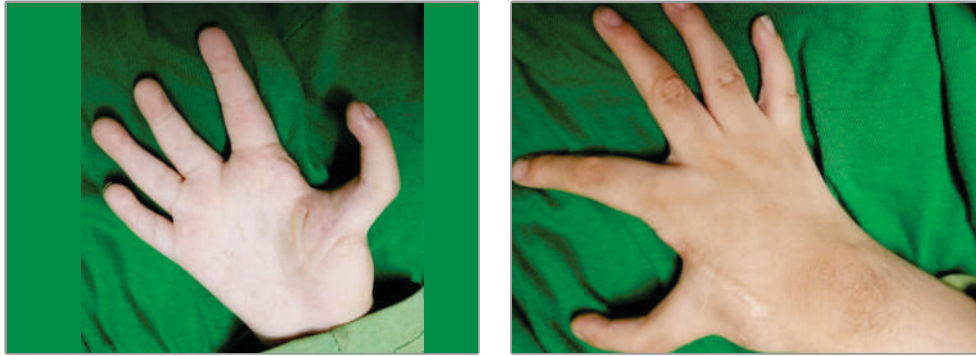
At Ganga, we have had four children with this extremely uncommon hand anomaly.



A one-year-old boy with a 7-digit right hand and no thumb



X-rays showing duplication of ulna and the carpal bones



Postoperative images of the hand

The child started using the reconstructed thumb well by 9 months. At 2 years follow-up, the child was holding toys and objects with an opposable thumb. The parents are happy with the aesthetic and functional outcome.

Another problem with mirror hand is the presence of a poorly formed elbow due to the presence of two ulnae. The flexion deformity of the elbow was the only complaint the 7-year-old girl in the picture had. The girl and her parents did not want any surgery for her 8-fingered hand. We reviewed her when she was 16 years. She was independent and could do all her daily activities. The wrist could flex to 100° with passive extension up to neutral. The elbow had a fixed flexion deformity of 45° with further passive flexion of 10°.



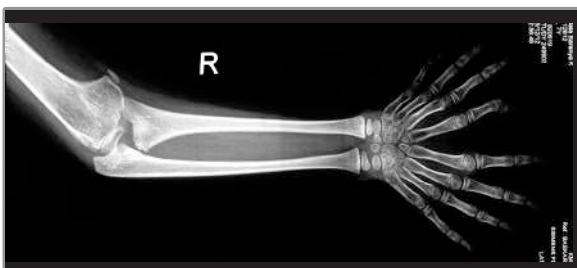
Flexion deformity of the elbow



The 8-fingered hand had two halves that interdigitated with one another to make a fist



The 16-year-old girl was happy with her hand function



X-ray showing carpal symmetry with duplication of the carpal bones. The medial lunate and triquetrum showed side-to-side coalition. Scaphoid, trapezium and pisiform were absent.

Hand Vignettes

“Are you shaking hands?”

Post COVID-19 pandemic, ‘*Are you shaking hands?*’ was the question one would ask each other after returning to office for work, after the lockdown. It meant whether one was willing to shake hands! It is the most accepted form of greeting.



It is said that Chimpanzees, our closest living relatives, have been shaking hands in one form or another for about 7 million years. There is proof that our ancestors Neanderthals used to shake hands. Shaking hands as a form of greeting has been depicted in ancient scriptures and poems. Among armed men, it was customary to extend the right hand with an open palm and to shake the hand up and down. This was to demonstrate that no weapons were hidden in the sleeve. The greeting etiquette varies with culture.

Russian and Victorian etiquette were closely followed in olden times. In Russia, the eldest man extends the hand first for greeting and invites the youngest in the circle to shake hands with him. Russians consider it bad luck to shake

hands across the doorway. One has to either walk inside the house or wait for the other person to come outside, but never across the threshold. In modern times, especially after the pandemic, it is said that avoidance of hand shaking can limit the spread of even common flu! However, hand shaking is still the most commonly used greeting or parting gesture.



Assyrian king Shalmaneser III (right) shakes the hand of Babylonian king Marduk-zakir-shumi I (left), 9th century BC

Ganga Hand Operative Course

July 17 - 20, 2025 Ganga Hospital, Coimbatore

Includes live surgery, didactic lectures and small group discussions.

Look for the details soon...



2026 World Congenital Symposium of Congenital Malformations of the Hand and Upper Limb.

February 25 - 28, 2026 Ganga Hospital, Coimbatore

This is the first time this will be held in this part of the world. Please mark the dates in your calendar. Includes a Live Operative Workshop.

Contact : rajahand@gmail.com

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