

LITTLE HANDS

GANGA
MEDICAL CENTRE & HOSPITALS PVT LTD



An Initiative of Plastic & Hand Surgery Department

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*Keeping it all in the **Gene**-ration*

**Dedicated to Awareness, Understanding, and Early
Action in Congenital Hand Conditions**

LITTLE HANDS



GANGA LITTLE HANDS is an educational initiative by the Department of Plastic, Hand and Reconstructive Microsurgery and Burns, of Ganga Hospital, Coimbatore, to share knowledge about Paediatric hand conditions. This is a monthly bulletin and was first started in August 2024.

It has a compilation of various hand conditions treated by us. Little Hands is for anyone and everyone. It is not for surgeons only. The technical tips, 'Did you know?', Picture Gallery, Hand vignettes and the 'Clinician's corner' might be interesting to all the readers.

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**To read all the issues of
Little Hands**

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Editorial

Born Different, Loved the Same: Happy Friendship Day !



The first Sunday of August is celebrated as Friendship Day. We get our family by chance but friends by choice. Most often the memories our friends provide of the time together are the most cherished ones of our lives. Looking back, most of us still hold our school days as very special due to our friends. They just accepted us as we were and nothing came in between.

But children with congenital differences of the hands may not be fortunate enough to have friends who just accept them as they are. This is the cause of concern for most parents who meet us. Fortunately, we can make most of them very normal. It has also been found that when these children become capable of functioning normally or near normally acceptability becomes very high. With a little bit of extra push, they can become heroes. That is what we try to do every time we treat a child with a congenital hand deformity. We plan and work, not for that day but we think of their needs and demands for the many decades that would follow.

We have as our policy that no child is denied access to excellent surgical care, the best possible in our hands, due to affordability. Never just pass by when you can help. Every one of us can do something. We were fortunate to have the helping hands in the form of the members of the Rotary Club of E Dynamix when we started the Project Eklavya to help such children last month. We are happy to say that we have had the first beneficiary.

On this friendship day, please do something positive to help a child to develop great friends at school, by helping them to raise up to their full potential.

“You cannot do a kindness too soon, for you never know when it will be too late.” -Ralph Waldo Emerson

**Dr S Raja Sabapathy
Dr Monusha Mohan
(Editors)**

Treadmill Hand Injuries in Children

The incidence of paediatric hand -treadmill injuries are on the rise. These are preventable domestic trauma. The recent rise in the particular type of injury may be related to post pandemic world trend, where more people own gym equipment at home. Treadmills are popular exercise equipments for walking and running. The machine has a rubberised belt that moves at a speed that ranges from 0.5 mph for a very slow walk to 12 mph for a sprint. At these high velocities, the belt can easily produce friction injuries on the soft palmar skin of children.

Presentations can vary from acute trauma to early complications to scar contracture sequelae. We have treated 4 patients with palmar deep friction burns or their consequences, following accidental events. Most of them were delayed presentations following initial treatment done elsewhere.



The clinical images before and after debridement



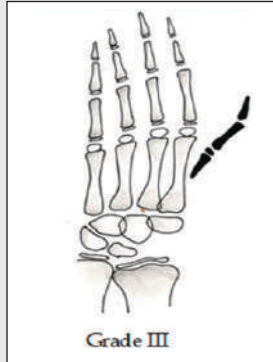
*The deep friction wounds required full thickness skin grafts.
At one year after surgery, the grafts have settled well*

Full thickness skin grafts were required to cover the raw areas. At final follow-up, the grafts have healed well. He has no functional deficit.

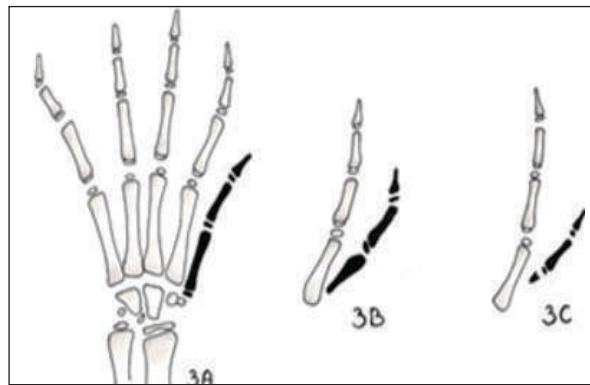
Prevention is the prime concern and children should be kept away from these exercise machines. There is little awareness about the safety concerns and the threat they pose especially in households where children are present.

Did you know?

Type 3C Thumb Hypoplasia is a Grey Zone in Congenital Hand Surgery



Modified Blauth Type 3 hypoplastic thumbs are underdeveloped thumbs with no extrinsic or intrinsic function due to severe hypoplasia. When the CMC joint is stable in type 3A (broad base of the first metacarpal), type 3B has an unstable CMC joint (tapered or pencil pointed base). Buck Gramcko added a type C to this. In type 3C, only the head of the metacarpal is present.

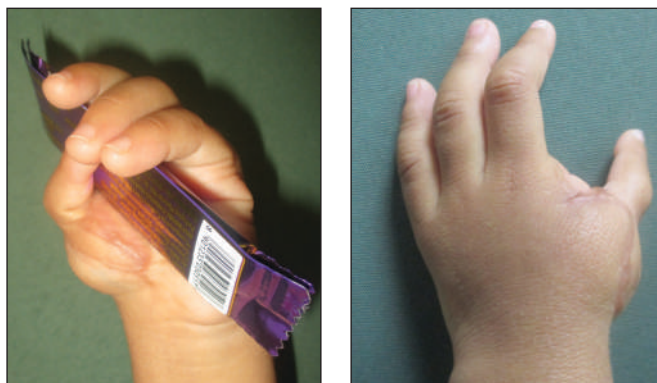


The types 3B and 3C are conventionally treated with Pollicization. In recent times, surgical techniques to reconstruct B and C types are in vogue. For restoration of a 5-digit hand, the hypoplastic first metacarpal can be reconstructed. Bone graft in the form of a non-vascularised phalanx transfer or an iliac crest bone, can be used, depending on the age of the patient. Phalangeal transfer with an open physis when transferred before the age of 18 months has a better chance of growth in the hand. But the thenar hypoplasia has to be taken into consideration and these kids require an opponensplasty as a second procedure.

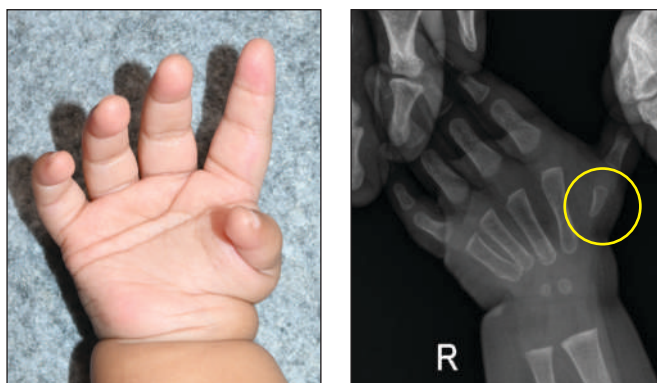


Child 1:

A 3 years old boy had a Type 3C hypoplastic thumb on his left hand



Pollicization of the index finger was performed and it yielded excellent results



Child 2:

*Parents of this 9 month old boy
with Type 3C hypoplastic thumb wanted us to restore his five digit hand*



*The soft tissue pocket in the first metacarpal
was dissected and kept ready to receive the proximal phalanx from the left fourth toe*



Non vascularized toe phalanx transfer for reconstruction of the first metacarpal



Huber Opponensplasty. At final follow-up he is seen using the thumb-index finger pinch on the right. Left hand shows scissoring pinch.

Second stage of surgery was an Abductor digiti minimi opponensplasty. The right thumb/index finger used to grasp the toy whereas on the left side he uses the index/middle finger side-to-side pinch. He underwent reconstruction of the left thumb recently.

Table comparing the surgical techniques for Type 3B / 3C

For Type 3B/3C Hypoplastic Thumbs	Pollicization	Thumb Reconstruction
	4-digit hand	5-digit hand
	Single stage procedure	Multi-stage procedure
	No donor site morbidity	Donor site - foot / iliac crest morbidity
	Index finger function is retained when it replaces the thumb	Can restore only Opposition function

It is important to evaluate the type 3B and 3C thumbs every time the child visits the OPD. The shape and size of the thumb should be evaluated, including the base of the thumb. The images show two thumbs that radiologically fall into the same type. But morphologically, they are different. One is short, slender with a narrow base that is almost floating. In such a hand, Pollicization will be a better option. Hence it is important to note that, the surgery planned is individualised. Parents often read about the option of thumb reconstruction and approach us for surgery. At times, it takes longer than usual to convince such parents for Pollicization.

At Ganga hospital, we perform both the surgeries. But the plan is tailor-made and the decision is made after careful evaluation.

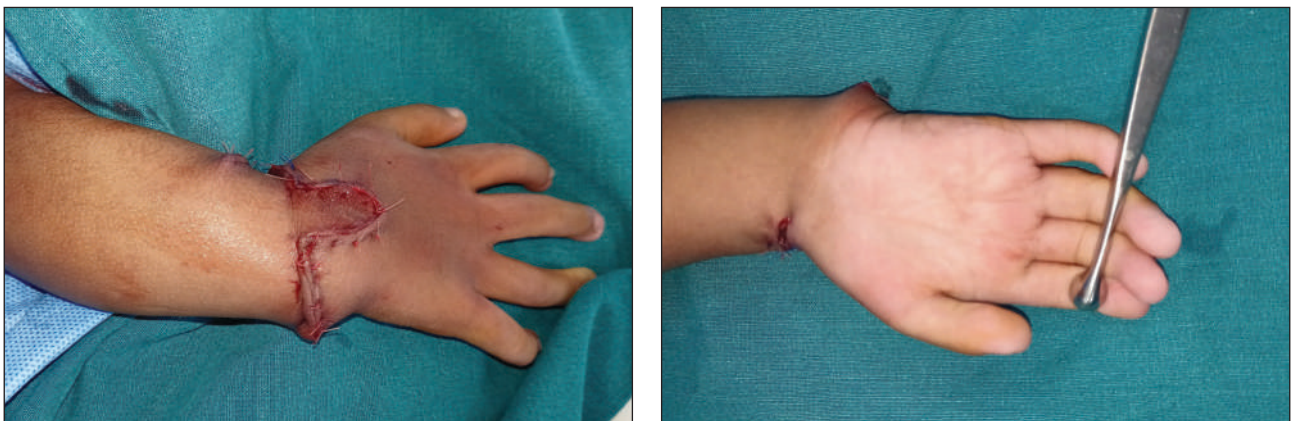
Clinician's corner

Thrombocytopenia Absent Radius (TAR) Syndrome

One of the blood dyscrasias seen in Radial longitudinal deficiencies or dysplasias is thrombocytopenia. In this condition, the radial dysplasia is always Bayne and Klug type IV (absent radius). This is often bilateral. The thumb is always present. Thrombocytopenia is usually congenital or develop during the first few weeks of life. The platelet count gradually improves with time.



Bilateral absent radius with severe wrist deformity



*Soft tissue release and plication of the
Extensor carpi ulnaris tendon to correct the wrist deformity on the right side*

This 2 years old boy, had thrombocytopenia at birth (1 lakh/cumm). He was diagnosed to have TAR syndrome in view of the associated hand anomalies. Though his platelet counts improved and attained normal range, he had severe malnutrition. The surgery was performed when the weight gain was satisfactory. The wrist deformity was corrected with soft tissue release and plication of the Extensor carpi ulnaris tendon. The defects on the radial and dorsal aspects could be closed via the Evans bilobed flaps.

Hand Vignettes

The Craft of Garland Making

A flower garland is used in India for deity worship, festivals and weddings. Garland making is a craft often passed down from mother or grandmother to the girl child in the family, for daily worship. This muscle memory is passed down through generations.



It is a beautiful sight to watch how a flower garland makers' hands move. They move with astonishing speed, yet with precision. The left hand holds the string of flowers while the right thumb and index finger pinch each flower and middle finger loops the cotton thread or the banana plant fibre, that is usually moistened with water. The thread is then tightened at the base of the flower in a quick flick and twist. The hands move in a constant motion.



The flowers that are usually used are jasmine, marigold, rose, lotus etc. There are several types of garland tying depending on how the flowers are arranged. The garlands can be knotted or rolled or twisted or patterned.

Real Life Story - 'Every Journey Matters'

Baby A had Constriction ring syndrome involving all her four limbs. She underwent surgery for all. The acrosyndactylies and rings in the hands and the cleft in the right foot were surgically corrected. We received a beautiful Doctor's Day message from her father.



A Sweet Doctor's Day Message

"Happy Doctor's Day,

On this special day, we want to extend our heartfelt gratitude. You are truly like God for us.

The reconstructive surgery you performed on our precious daughter, Baby A, has brought new hope and healing to our lives. Your expertise, care, and compassion have made an unforgettable difference.

Thank you for giving Baby A a brighter, healthier future.

With deepest respect and love,

Baby A & Family."



Both her hands and feet were affected. Hands showed acrosyndactyly and constriction rings whereas the right foot had a deep cleft causing disfigurement



Post operative clinical images



It was her first day in school and her father shared this picture of her picking small objects as a part of a school activity. She is seen cutting a paper for a school project.

Help us heal Little Hands | Make a donation

It is difficult to imagine what the parents experience when they find out in the labour room that their newborn baby has a congenital limb defect. The family often feels devastated as their hopes fade. Most of the limb anomalies have a surgical solution that is aimed at making the hand to function in a better way.

Globally, congenital anomalies or birth defects affect 2-3% of births. In India, 1-3 out of 100 babies born are with birth defects. Though musculoskeletal anomalies are the most common defects seen, rarely we find major initiatives aimed at managing these defects. A lot of regional and international proposals are directed at treating and supporting children with congenital heart diseases and orofacial defects like cleft lip/palate. Though isolated congenital limb defects are not life threatening like the cardiac and craniofacial anomalies, they are disabling and lower the quality of life.

You can make a tax-deductible donation today and transform the lives of these kids by giving back their childhood.

To make a donation, please write to rajahand@gmail.com

At Ganga, we have a specialized team of doctors to provide comprehensive care to these children. One of the basic surgical principles of congenital hand surgery is to correct the deformities before the child attains school going age. Often these defects are bilateral and involve multiple fingers, necessitating staged surgical procedures. We have highly experienced Paediatric anesthesia staff to support the surgical team. The associated anomalies are taken care of by our Pediatric orthopedic, spine, maxillofacial and cardiac teams. Ancillary services like physiotherapy, nutrition and speech therapy are also available.

Project Eklavya - A Joint Initiative of Rotary E Club of Metro Dynamix and Ganga Hospital



India is witnessing an epidemiological transition from communicable diseases to non-communicable diseases. According to March of Dimes report (2006), 6-7 per 100 new born babies have birth defects. When more focus is on new born survival, we fail to pay attention to the quality of life of these children born with defects. When a child with congenital hand deformities survives and grows up, it is not just their hand function that is affected, their self-esteem and emotional well-being are too deeply impacted.



A Project for children with Congenital Hand Deformities

Musculoskeletal defects are the second most common birth defects, however initiatives to help children with hand anomalies are rare. ***Project Eklavya was launched by the Rotary E club of Metrodynamix in collaboration with Ganga Hospital, Coimbatore, on 06.07.2025.*** With this initiative, we try to fill the gaps in care and support of these children like, paucity of insurance coverage for children with birth defects, multiple limb involvement, syndromic associations that increase the financial burden, multiple stages of surgeries and post surgical rehabilitation. We had our first beneficiary last month.

World Congenital Hand Symposium

Ganga Hospital Presents

13TH

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

Feb 25th - 28th 2026

Ganga Hospital, Coimbatore, India.

Registration is open now !

Kindly sign up for the meeting at www.wcs2026.com

Stay Connected



To get updates about our services for children with hand disorders, to grab the future issues of the monthly bulletin and to know what the department of Plastic, Hand and Reconstructive Microsurgery and Burns offers scan the code.



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