

# LITTLE HANDS

**GANGA**  
MEDICAL CENTRE & HOSPITALS PVT LTD



An Initiative of Plastic & Hand Surgery Department

Monthly Bulletin | Issue 11 | June 2025



*Confidence in Colours*

**Towards Fulfilling the  
Reconstructive Surgical Needs of Children**

# 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

### June - Beginning of Change and Another Educational Term

Come June, it is a busy time at home since schools reopen and at a higher level students have to choose their courses which would decide their career. Whatever be the age, the excitement and challenges remain - from nursery to the college level.



It extends to the life of a medico too. Very often a medical student is at a crossroads and has to decide on the pathway of the specialization one has to take. The scope of some specialities are obvious, but there are some like Hand Surgery which are not obvious. Human hand is a marvel of nature - complexity of its design ensures simplicity in function. In spite of all the advances in technology, it has been almost impossible to construct an artificial hand good enough for hand amputees to accept and use it on the long term. A hand surgeon deals with all the tissues in the hand, from skin and soft tissue, to bone, to muscles and tendons, blood vessels and nerves. So the training encompasses the principles of Plastic Surgery, Orthopaedics, Neurosurgery and Vascular surgery. Life is never boring for a hand surgeon.

So this June, we wish all the children and the adults who step into the next stage of their career and we wish that the best and the brightest choose Hand Surgery as their career.

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

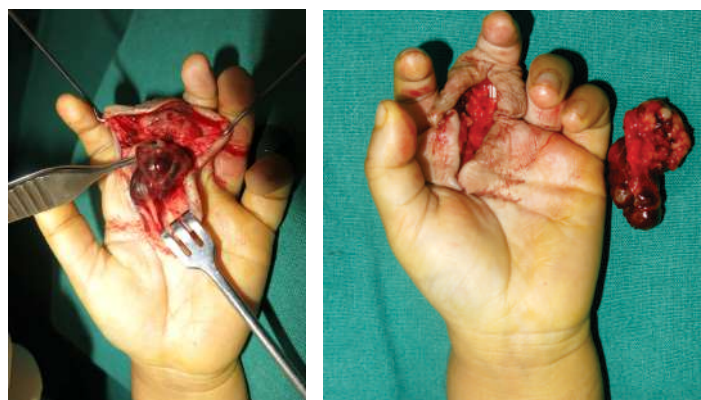


## Vascular Malformation of the Hand

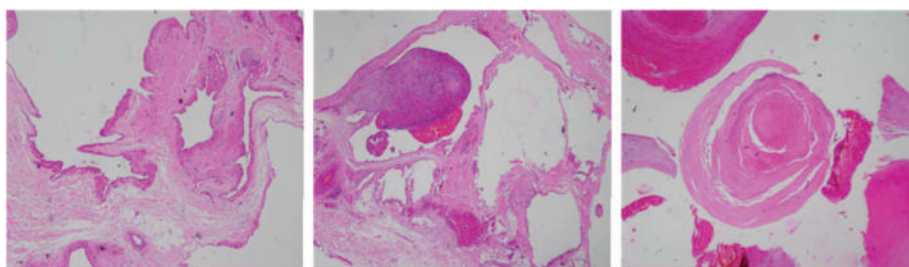


*A 3 years old girl with a swelling in her left palm and middle finger.*

The swelling was noticed at birth but has been increasing in size since then. The child had a compressible swelling with a bluish hue and was clinically diagnosed as a slow-flow venous malformation. The most common symptom in such cases is pain and it can be due to thrombosis or distension of the abnormal veins.



### PHOTO MICROGRAPH



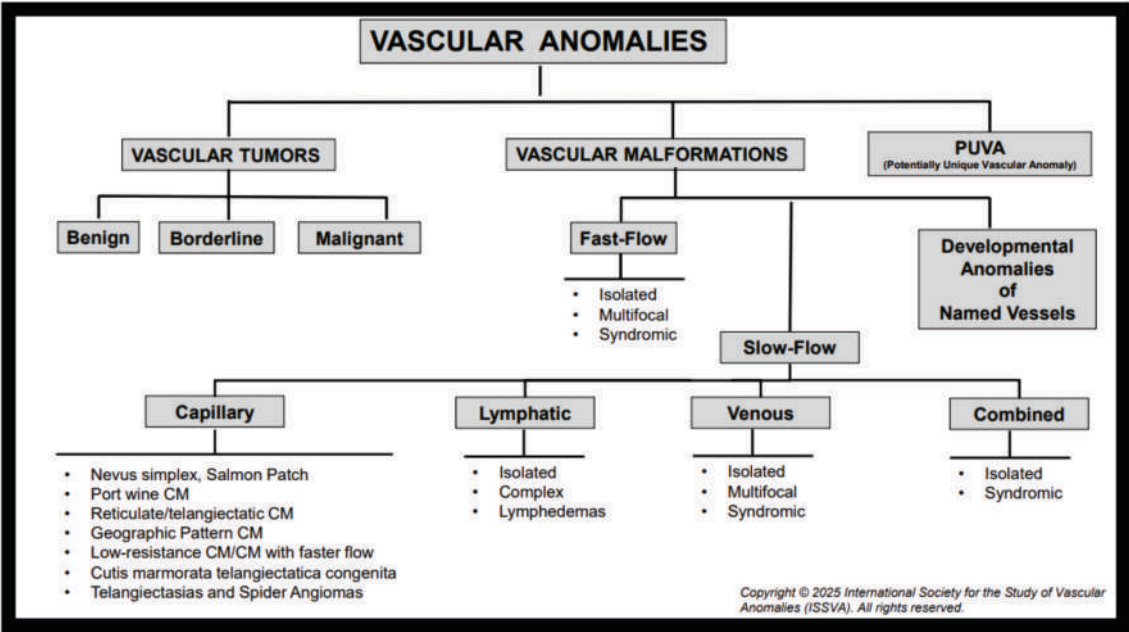
### FINAL IMPRESSION

**Excision biopsy, Swelling in Left Distal Palm and Middle finger**

Histomorphology is consistent with Venous Malformation.

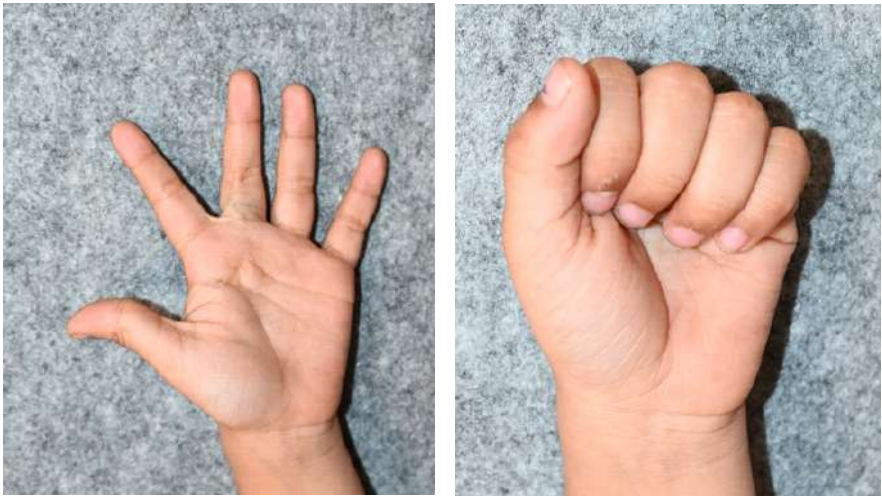
*The swelling was excised; the clinical diagnosis of venous malformation was confirmed*

According to the ISSVA (International Society for the Study of Vascular Anomalies) classification, vascular anomalies are classified mainly into tumours and malformations. While vascular tumours are due to endothelial proliferation, malformations are structural abnormalities of blood vessels due to an error in the development of embryonic tissue.



*ISSVA (International Society for the Study of Vascular Anomalies) classification- Latest version - 2025*

| Type                       | Flow Type | Common Example             |
|----------------------------|-----------|----------------------------|
| Capillary Malformation     | Slow-flow | Port-wine stain            |
| Venous Malformation        | Slow-flow | Blue, compressible lesions |
| Lymphatic Malformation     | Slow-flow | Cystic hygroma             |
| Arteriovenous Malformation | High-flow | Pulsatile, warm lesions    |
| Combined Malformations     | Varies    | CLVM, CVM                  |



*Excellent aesthetic as well as functional result at 3-year-follow-up*



## Did you know?

### Thumb forms 40% of the Hand Function

An often-quoted statement in our preoperative parental counselling is the functional contribution of each digit in our hand in percentage. Thumb forms 40% of our hand function. The thumb is positioned in a different plane from the other digits. It enables opposition, precision grip and power grasp. A child born with an underdeveloped or absent thumb, may grasp or pick up tiny objects using the index/middle finger or ring/little finger side-to-side pinch. This scissoring pinch is often assumed by parents to be sufficient.



***Right Thumb Hypoplasia-  
Floating type requires Pollicization***

Counselling the parents for Pollicization of the index finger, to create a thumb, takes time; often multiple visits are required. Some parents need time to discuss the procedure between themselves, as the resultant hand would have only four digits. They are often content with the side-to-side pinching and functional status of the hand. This is often due to ignorance of the fact that the scissoring pinch involves fingers that are not designed for opposition like the thumb and that the functional requirements of the child will gradually increase with age. This type of pinch lacks the tripod support the thumb provides. Though kids pick up small objects they cannot securely hold them. Thumb is required for cylindrical grasp, for holding bigger or heavier objects.



***The pattern of holding objects when the thumb is underdeveloped or hypoplastic***

The compensatory method of using the fingers requires excessive flexion and adduction, with compensatory movements of the wrist or elbow or shoulder. This can lead to rapid fatigue.

After pollicization, the child adapts to the reconstructed thumb or the pollicized index finger well. Imaging studies using functional MRI scan of the brain in children after pollicization have found out that reorganization of the sensorimotor cortex happens after early pollicization. We prefer to do the surgery at around 2 years of age. But it always good to see and examine the child before that, for counselling and preoperative evaluation.



*The better grasp and grip of objects noted following pollicization of the index finger*



## Clinician's corner

### Triphalangeal Thumb - Polydactyly Syndrome

A Triphalangeal thumb (TPT) has three phalanges as the name suggests. TPT phenotypes are usually classified into 5 types: (1) isolated TPT; (2) TPT + radial polydactyly; (3) TPT + radial polydactyly + feet anomalies; (4) TPT + radial polydactyly + ulnar poly(syn)dactyly; (5) TPT + radial polydactyly + ulnar poly(syndactyly) + feet anomalies.

A one month old baby girl was brought to us with multiple anomalies of her hands and feet as shown in the images. She had associated congenital cardiac and renal anomalies with vaginal synechia.



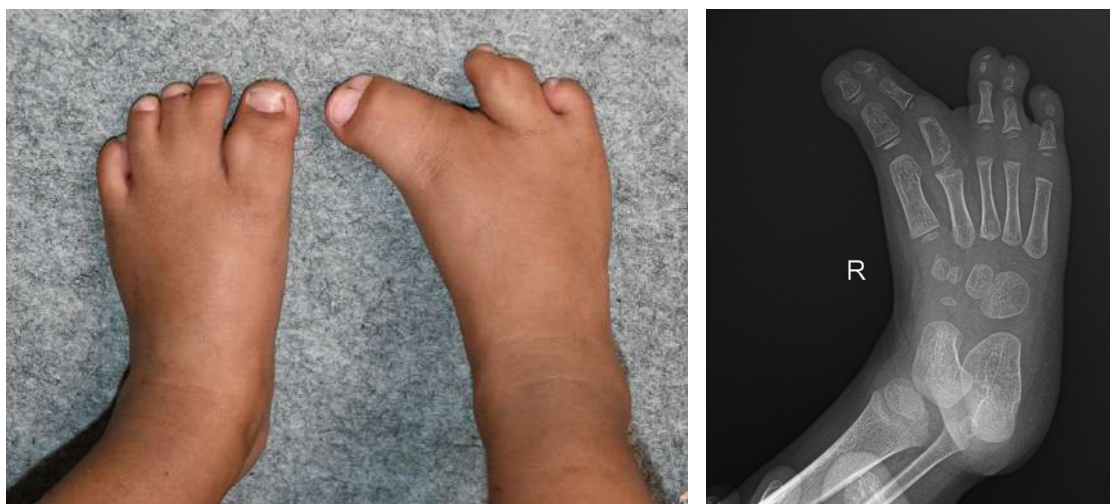
*She had bilateral triphalangeal thumb.*

*The right hand had first web syndactyly with an extra digit on the radial side*

According to the classification, the child has Type (3) TPT phenotype. We separated the right first web syndactyly and excision of the extra digit, when she was eight months old. The separated first web allowed the thumb to grow and helped the child to hold objects. The deviation deformity of the thumb and index finger will require surgical correction later.



*Early separation of the first web syndactyly led to better hand function*



*The right foot had a complete first web syndactyly with Hallux varus deformity.  
Both feet had second / third toe syndactyly*



Last month, the parents brought the child for correction of the hallux varus deformity of the right foot as she had difficulty in wearing closed shoes.

We released the medial contracture of the great toe and performed a closing wedge osteotomy of the delta proximal phalanx of the second toe. The first web “Skin - fat” flap was used to cover the medial defect (Farmer Technique).

Further details on the technique are available in our cited article:

#### CASE SERIES

### Correction of Congenital Hallux Varus Deformity Using Modified Farmer's Technique: A Case Series

Shanmuganathan Raja Sabapathy<sup>1</sup>, Monusha Mohan<sup>2</sup>, Sahithya Bandi<sup>3</sup>

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#### ABSTRACT

**Aim and background:** Congenital hallux varus deformity is an uncommon entity. There are various reasons for the development of the deformity. It can be primary without any underlying pathology, secondary (preaxial polydactyly), or tertiary (dwarfism). The medial aspect of the great toe at the metatarsophalangeal (MTP) joint region is explored to address the tightness of the abductor hallucis and the joint capsule. After the soft tissue release, with or without osteotomy for correction of the deformity, there will be a resultant defect. Farmer's technique is a surgical procedure to correct hallux varus, where the defect on the medial aspect of the great toe is covered using the “skin-fat” flap raised from the first web.

**Case description:** We report two children with hallux varus deformity associated with preaxial polydactyly. They were brought to us with difficulty in wearing closed shoes and for cosmesis. Radiographs were taken, and the MTP or varus angles were measured. Preoperative varus angles for our patients were 47.1° and 69.6°.

Farmer's technique was used for soft tissue balancing after the correction of the deformity in both our cases. We used a modified technique; the great toe and second toe were not syndactylized. Results were analyzed using the Phelps and Grogan method. Good to excellent correction of the varus deformity with good cosmesis was attained. Postoperative varus angle measurement showed a correction of 39.4° and 52° in our cases.

**Conclusion:** Farmer's technique is a good option to correct congenital hallux varus deformity and can be combined with bony procedures. The lax first web skin-fat flap covers the medial soft tissue defect.

**Clinical significance:** Congenital hallux varus is a difficult condition to treat as the chance of recurrence is high. Farmer's technique shifts the redundant skin and soft tissue in the first web to the medial aspect of the great toe that lacks soft tissue. This prevents recurrence.

**Keywords:** Case report, Congenital, Farmer's technique, Hallux varus, Polydactyly, Toe deformity.

*Journal of Foot and Ankle Surgery (Asia-Pacific) (2025): 10.5005/jp-journals-10040-1380*

Sabapathy SR, Mohan M, Bandi S. Correction of Congenital Hallux Varus Deformity Using Modified Farmer's Technique: A Case Series. *J Foot Ankle Surg Asia-Pacific* 2025;12(2):103-107.



## Hand Vignettes

### The Art of Hand Block Printing

Indian hand block printing is a traditional art where dye is applied to fabrics using hand carved wooden blocks. The carving of the wooden blocks is tedious. It demands exceptional craftsmanship.

The first step is designing and the design is drawn on a paper. The motifs are influenced by nature and can be floral or geometric or figurative. These designs are traced onto translucent sheets and replicated on beams of Sheesham wood.



### *Sketching & Wood Carving Skills*

Each design has 2 to 4 colours and each colour needs a separate block. The artisans prepare the main outline block and the filling blocks. Usually, the main artisan carves the outline block as it is the most important block. These motifs are carved into the wood using steel chisels and wooden handles.



### *Intricate Coordination and Repetitive Accuracy*



Hand block printing exemplifies the intricate coordination, dexterity, and endurance of the human hand. This traditional textile art relies entirely on manual techniques each design is created by artisans pressing hand-carved wooden blocks onto fabric with precision and rhythm. Spatial awareness is required as the block print will be a mirror image of the carved design.

The process demands not only fine motor control and tactile feedback but also seamless teamwork, with multiple hands contributing to each step. In the context of hand surgery, this practice highlights the profound role of the hand in cultural expression, skilled labour, and livelihood.

## Real Life Story - 'Every Journey Matters'

### Proudly Left-Handed



"It was our wish to God that we wanted a baby girl and we got in the form of Baby C. But, happiness of seeing the girl child vanished away in few minutes seeing the right hand fingers shorter than usual. Though we didn't understand it fully all we could infer is fingers were smaller and also they were not bending fully. We are from a typical lower middle class family in the state of Andhra Pradesh. Like every couple, we had dreams of having kids and always thought of upbringing them in the best possible manner even before they are born.

Like a typical father of a girl child, that day entire night I searched Google and sent girl pics to my friends in doctors circle and finally understood that Amniotic Band Syndrome. Soon after

knowing the actual problem, my fears got only aggravated and I could not sleep for many days properly. My wife used to cry everyday why her baby got this issue as we didn't see anything like that anywhere in our lives. To all doctors we met month after month, every one used to take photos of her hand as if her issue is a case study and slowly we got used to this.

I have also searched many internet pages, studied medical magazines, spoken to parents in different countries where kids of them born with amniotic band syndrome. But, my mission to give her best possible doctor advice didn't end there. I wrote a detailed mail on C issue to Doctor Raja Sabapathy sir at Ganga Hospital, Coimbatore. To my surprise, immediately I got reply to the mail telling us to meet sir after 9 months of baby age. We were eagerly waiting and counting days to meet Raja sir and finally that day has come. When we met Raja sir at Ganga Hospital, we came to understand that it was amniotic band syndrome with multiple bands on right hand. Some of the bands can be removed surgically and we did say YES to go ahead and did surgery in second visit. During first visit, we also met doctor Monusha mam who gave lot of comfort to my wife explaining the minute things. But I am the one who possibly irritated Monusha mam asking too many questions on the hand issue just like a typical father. Because, for a father there is nothing comes better than caring his child and I am not exception for the same.

During initial days after C was born, we had so many questions lingering on mind how baby would be growing, how society will see her, how her classmates will think seeing her hand etc., but during our course of surgery at Ganga Hospital, we had met so many different cases across the world which were more serious than C had. During the course of visits at Ganga Hospital, Chaithra name was called multiple times by receptionist and doctor medical teams as Baby C Baby C which still reverberate in our ears.



***The hemi-circumferential constriction ring was released by multiple Z plasties.  
The distal edema diminished and the distal forearm had a better contour postoperatively.***

As I share this story now, C is close to 3 years old and she can do every work like a normal child. She can eat, write, play all kinds of games ofcourse with a left hand. Right hand is also used by C as per needs of the work she does. I still remember Raja sir saying " Suppose you have two ways - one difficult road and other straight road u tend to choose straight road and C will be left-handed going forward. We praise a lot on English men who use their left hand and when it comes to us we feel which is not right ".

So, I now proudly say that C is left-handed and a typical baby girl who is unique in her own way. She takes care of her mother and father though she is very young by asking whether did u eat, come let's eat, let's play be energetic etc., kind of things which makes us feel happy for the progress she is making.

When we see C making tremendous progress just like any other normal girl, we smile at ourselves why did we feel so bad during initial days on C's hand issue."



## 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](mailto: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.






## Ganga Hand Operative Course 2025

**GANGA**  
MEDICAL CENTRE & HOSPITAL PVT. LTD.

Ganga Live Surgery Courses  
**Ganga Hand & Microsurgery Operative Course**  
17<sup>th</sup> - 19<sup>th</sup> July 2025

Venue : Ganga Hospital, Auditorium Website : [www.ghoc2025.com](http://www.ghoc2025.com)



Hybrid Event Powered by  
Microsoft Teams  
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Scan the QR code  
to register

**Hybrid Course**

**Dr S Raja Subapathy**  
Course Chairman

**Dr Hari Venkatramani**  
Organising Secretary

**Dr Praveen Bhardwaj**  
Scientific Chairman

**International Faculties**

**Ms. Grainne Bourke**  
Plastic Surgeon, UK

**Dr. Duretti Fufa**  
Hand and Upper Extremity & Trauma Surgeon, USA

**Dr. Warren Hammett**  
Hand & Upper Extremity & Trauma Surgeon, USA

**Mr. Jonathan Hobby**  
Hand & Orthopaedic Surgeon, UK

**Mr. Alexander Luch**  
Orthopaedic Trauma Surgeon, Spain

**Course Highlights**

- 27 - hours intensive educational program
- Live demonstration of 30 surgeries over 3 days
- Live interaction with the operating faculty
- Ample opportunity to discuss subject & cases with the faculty
- Same rates for both in person and online registration
- 6 - Small group discussions for inperson delegates only
- Will cover day-to-day hand surgery cases & the most complex reconstructions
- A perfect mix of Orthopaedic & Plastic related hand surgery operations
- Can be combined with pre/post Ganga Micro Surgery Course

**Registration Details**

| S.No | Category                     | Registration Fee   | Total  |
|------|------------------------------|--|--------|
| 1    | Surgeon Trainees (In person) | ₹ 4500 + 18% GST   | ₹ 5310 |
| 2    | Surgeon Trainees (Online)    | ₹ 4500 + 18% GST   | ₹ 5310 |
| 3    | Surgeons (In person)         | ₹ 7500 + 18% GST   | ₹ 8850 |
| 4    | Surgeons (Online)            | ₹ 7500 + 18% GST   | ₹ 8850 |
| 5    | Overseas Registration        | \$ 150 (Low, Lower - Middle Income Countries)<br>\$ 300 (Upper - Middle & High Income Countries) |        |

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## World Congenital Symposium

**Ganga Hospital Presents**

**13<sup>TH</sup>**

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

**Feb 25<sup>th</sup> - 28<sup>th</sup> 2026**

**Ganga Hospital, Coimbatore, India.**



Registration is open now !  
Kindly sign up for the meeting at [www.wcs2026.com](http://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 below.

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3. Then, tap on the Google Lens icon or QR code scanner icon (usually located at the bottom or near the options bar)
4. Wait for Google Lens or QR Code Scanner to analyze the QR Code and display the link or information
5. Tap the link to go to the webpage



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