



Greetings from the President, ASAMI India

This year, the Presidential theme:

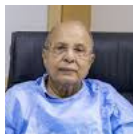
"Together We Build: Expanding Horizons in Limb Reconstruction"

My vision is to transform ASAMI India into a vibrant, inclusive, and forward-thinking organisation, anchored in our core motto: "Let's Teach the Basics." I strongly believe that foundational training is the bedrock of clinical excellence. Hence, my primary focus will be on training postgraduate students and young orthopaedic surgeons, equipping them with practical, skill-based knowledge and confidence to handle complex limb reconstruction using Ilizarov techniques.

A key focus area of my tenure will be to foster a culture of recognition and encouragement. I will actively work to ensure that our members gain access to prestigious national and international platforms, showcasing their expertise and elevating the stature of ASAMI India globally.

Above all, teamwork and transparency will remain the cornerstone of our governance. I am Committee. Guided by the wisdom and experience of our past presidents, I am confident that together we will lead ASAMI India to greater academic and professional heights.

Dr. Jayant Sharma
President, ASAMI India



History of ASAMI India

I first attended the Ilizarov session of the American Academy of Orthopaedic Surgeon annual meeting AAOS in the year 1989. I met Dr Dror Paley, We became friends. I did fellowship with him in Baltimore hospital, while staying with him. Dr Reiner of Munich, Germany, the inventor of Fitbone- (lengthening over nail with remote control without using external fixator) was also with us.

In India, Pitkar, Founder of Ortho Tools Pvt. Ltd manufactured all the Ilizarov instrumentation and sawbones. Thus, we started using Indian implants for Ilizarov external fixator in my hospital. It is important here to mention that before I started using Ilizarov external fixator Dr. Milind Chaudhary and Dr. Presham Shah had already started using it.

We organised the first Ilizarov conference in India with Dror Paley as the Director, at Bombay Hospital in the year 1990. Dr. Paley alone conducted workshops and lectures. Dr. Milind Chaudhary and myself presented our work. The second conference on Ilizarov principles was organised by Dr. Gopalkrishnan at Chennai in December 1991. Dr. G A Ilizarov was the chief guest and Gopalkrishnan and myself were two other faculty. Six hundred delegates attended the conference from all over India. What I learnt from Dr. Ilizarov was "clinical examination is more important than other ultramodern imaging and other tests." His clinical examination and diagnosis were amazing.

In 1992 we (Dr.HR Jhunjhunwala, Dr Milind Chaudhary and others) formed ASAMI India, a branch of International ASAMI. Dr. KT Dholakia, a legendary figure in Indian orthopaedics was the first president of ASAMI, India. I was the secretary. We formed a team and moved all around the country to almost all the states to teach the Ilizarov technology, by hands on workshops and lectures. IOA and state chapters also included Ilizarov technique in their annual meetings. Dr. H.R.Jhunjhunwala, myself and many others used to attend international ASAMI meet. Dr. Jhunjhunwala became the president of international ASAMI. He successfully conducted the international ASAMI conference at Goa. It was very well attended. All halls were jam-packed. Most of the international Ilizarov stalwarts attended the conference.

Ilizarov technology became very popular in India in the last decade of 20th century. With the beginning of the 21st century, newer methods and technology has evolved. Dr. Ruta Kulkarni developed a novel technique of Lengthening over a slotted plate, a simple and a very useful method. Dr. Mangal Parihar, a genius and a computer wizard, joined ASAMI India as secretary. He modified The Deftfix - a computer assisted technology which improved accuracy of correction of deformity, limb lengthening etc.



ASAMI India's growth, initiatives and goals.

Greetings from ASAMI India Secretary!

I express my heartfelt gratitude to all ASAMI India members for entrusting me with the opportunity to serve as Honorary Secretary.

Since its inception in 1950s, the Ilizarov method has transformed millions of lives worldwide.

As observed by Professor Catagni, we are living in era of rebirth of Ilizarov method, perhaps fewer Surgeons are using this method but more procedures are performed with better functional outcome.

Over the past two decades, ASAMI INDIA has grown significantly, offering ample opportunities for learning the Ilizarov method through fellowships and collaborations with various centers.

Effective communication is crucial for our organization's success, which is why we've developed a website, Facebook page, Twitter account, and YouTube channel.

We're now launching a quarterly newsletter to keep members updated on ASAMI activities, thanks to Dr. Madhura Kulkarni.

Our initiatives include theme-based webinars, case discussions, and associate membership for postgraduate members. I'm grateful to have a dynamic team of state representatives and experienced faculty members dedicated to the organization's betterment. I'm honored to serve under the leadership of President Dr. Jayant Sharma and Vice President Dr. Mangal Parihar.

I hope that with the guidance of past Presidents and Secretaries, support from my team, and active membership drive, we'll expand our ASAMI India family, fulfill our objectives, and promote a culture of recognition and rewards.

Let's work together towards a better tomorrow for every member and the organization.

Dr. Amar Soni
Secretary, ASAMI India

Dr. Ram Agarwal and Dr. Rajat started :International Fellowships: Opportunities to train in countries like Austria, Russia, China, and Bangladesh. And National Fellowships: Training programs within India to enhance skills in limb reconstruction.

Dr. Milind Chaudhary became chief editor of an international journal of limb lengthening and reconstruction (JLLR). It's an honour to India. I suggest to start an official journal of Ilizarov Technology of ASAMI India. I see many novel presentations by our Ilizarov surgeons I feel they should publish in international journals.

Subsequent Presidents like dr. Miliind Choudhari, dr. Harshad Shah Dr. R A Agrawal, Dr. Manish Dhavan, Dr. Ruta Kulkarni, Dr. Rajat Agrawal and current President Dr. Jayant Sharma are taking this organization to a better level each year. Each new year is a new vistas for improvement, newer developments and encouragement for budding Ilizarov surgeons. **G.S.Kulkarni Oration** was started in appreciation of his contribution to ASAMI India by Dr. Ruta Kulkarni. Dr. Milind Chaudhari was the first Orator and he spoke on High Tibial Osteotomy.

Dr. H.R. Jhunjhunwala Gold Medal session was started by Dr. Ruta in her Presidential tenure which awards for outstanding original research on Ilizarov techniques and deformity correction. I am sure that ASAMI India has a bright future with the hard -working intelligent younger generation.

Dr. G S Kulkarni
Founder, ASAMI India



The Journey to the Presidency of ASAMI INDIA

When I first stood for the President's post in ASAMI INDIA, the biggest question I faced wasn't about my eligibility, but about my age. At just 43, I wondered if I was too young for a position traditionally held by more senior members with grey hair and decades of experience. But then I reflected on my journey: six years as Secretary, organizing three ASAMICON conferences when there were no volunteers or funds—only the quiet faith of my father, the then President, who simply asked me to step in.

ASAMI INDIA wasn't just a professional organization to me—it was part of our family's conversations, our legacy. That's when I realized: age isn't the benchmark, contribution is. So I stood for election. Unlike earlier years where consensus decided the leadership, this was the first proper election. I personally reached out to each member, somewhat hesitantly, and requested their support. With the Agarwal name following Kulkarni's in Ilizarov circles, and after a tough campaign, I was elected. The journey taught me humility and strength.

Once elected, the next challenge was clear: What now? I hadn't planned to become President, so I didn't come with a roadmap. I asked myself: What's my vision? How do I engage senior colleagues, many of whom are used to guiding rather than being guided?

With 15 years in orthopaedic practice, I enjoyed treating trauma, spine, and joints—Ilizarov was just one part of my approach. I had a different philosophy from some seniors. I didn't see Ilizarov as a magic fix for every case. It's uncomfortable and often intimidating for patients. I believe in internal fixation when possible but still perform 3-4 Ilizarov procedures weekly, especially for infected non-unions, compound fractures, and deformities—cases where Ilizarov truly shines.

My vision became clear: encourage young surgeons to see Ilizarov not as a miracle, but as one tool among many. The goal is to use it when it offers real advantages—not to replace other modalities, but to complement them. We wanted to demystify Ilizarov, remove the aura of complexity, and focus on teaching clear principles—especially deformity correction and CORA understanding.

We recognized that most postgraduate programs and early surgical careers barely touch Ilizarov techniques. There's little accessible literature, and most presentations show only miracle outcomes, which don't help beginners. Young surgeons are hesitant to ask basic questions and need a more grounded, practical introduction.

So, our team focused on education: detailed, step-by-step workshops, not just high-level case studies. We emphasized that it's not the device but the principle that matters—learning how to avoid varus, how to calculate deformities, and when to use Ilizarov. Our vision translated into action—providing books, quality videos, and good academic content to help young surgeons gain confidence.

A major highlight was organizing ASAMICON 2024 in Goa. It set records for participation, especially from young and foreign faculty, setting a benchmark for future conferences.

Practicing in a tier-two city, I see patients every day suffering from the consequences of poorly managed fractures—exposed implants, chronic infections, and devastated finances. Many have sold land, lost jobs, and lost hope. Most of these cases could have been prevented with better training and decision-making. It's not just about fixing bones—it's about saving families.

My message to young surgeons is simple: prevent infected non-unions. Learn the right techniques, and don't hesitate to manage complications yourself. Ilizarov is not magic—it's a tool. Learn it, respect it, and use it wisely.

Thank you,
Dr. Rajat Agarwal
Immediate Past President (2023-25)
ASAMI INDIA



Dr. Jayant Sharma
President, ASAMI India



Dr. Mangal Parihar
Vice President, ASAMI India



Dr. Amar Soni
Secretary, ASAMI India



Dr. Rajat Agarwal
Imm. Past President,
ASAMI India



Dr. Ritesh Pandey
Joint Secretary,
ASAMI India



Dr. Pritish Singh
Joint Secretary,
ASAMI India

Dr. Ravi Chauhan
Treasurer, ASAMI India

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Joint Editor, ASAMI India

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Dr. Jeejesh Kumar T.K.
EC Member - South Zone

Dr. Pritish Singh
Joint Secretary, ASAMI India

Dr. Pranav Mahajan
EC Member - Central Zone

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Dr. Ruta M. Kulkarni
Foreign Fellowship Committee

Dr. P.N. Vasudevan
Inland Fellowship Committee

Dr. Vikas Gupta
Academic Committee

Dr. Shamshul Hoda
Website and IT Committee



Past Events

28/03/2025

Welcome everyone for ASAMI India Kerala chapter - webinar

How to approach Non union

Join us Live On!

March 28, 2025
8:30 PM- 10 PM
www.orthotvonline.com

Prof (Dr) Jayant Sharma
President - ASAMI India

Dr Mangal Parihar
Vice President - ASAMI India

Dr Amar Soni
secretary-ASAMI India

Dr Rajat Agarwal
Past President - ASAMI India

Dr Dilip Kuncheria
Kerala State Representative

Dr Vasudevan P N
Palakkad
Speaker

Dr Cherian Kovoov
Kochi
Case discussion

Dr Jeejesh Kumar T K
EC Member, South zone
Case discussion

zoom

19/04/2023

HITARTH

JODHPUR BASIC ILIZAROV COURSE
UNDER AEGIS OF ASAMI, INDIA
AND LIMB RECONSTRUCTION SOCIETY OF RAJASTHAN

LEARN THE SCIENCE BEHIND THE MAGIC OF ILIZAROV

Course Director **Dr. Mangal Parihar**
Mumbai

Dates : 19th - 20th April, 2025
VENUE : HOTEL ZONE BY THE PARK, JODHPUR

04/05/2025

ASAMI INDIA ACADEMICS
CASE BASED DISCUSSION
4th MAY, 2025 | 10 AM IST

LIVE WEBINAR

Dr. Jayant Sharma
President, ASAMI

Dr. Mangal Parihar
Vice President, ASAMI

Dr. PV Vasudevan
Senior ASAMI Faculty

WATCH LIVE HERE!

17/05/2025

ILIZAROV & EXTERNAL FIXATORS IN PAEDIATRICS

A comprehensive one day CME on role of Ilizarov and external fixators in paediatric orthopaedic problems

INDIRA GANDHI INSTITUTE OF CHILD HEALTH
Bengaluru

17th May 2025

LIMITED SLOTS AVAILABLE
Registration fee: Rs.1000/-

TO REGISTER SCAN QR CODE

REGISTER AT : <https://forms.gle/XayfY1onp3odczYX7>

Venue
Indira Gandhi Institute of Child Health
1st Block Jayanagar, Near NIHMANS,
Bengaluru-560029
<https://maps.app.goo.gl/KVcOH7o1GHJL9FUs9>
For further details contact:
Dr. Abhishek S Bhasme: +91-78994 42003
Dr. Mohammed Yaqub: +91- 94491 43244

30/05/2025

ASAMI INDIA ACADEMICS
RAJASTHAN CHAPTER
30th MAY, 2025 | 8 PM IST

LIVE WEBINAR

(President) **(Moderators)**

Dr. Jayant Sharma
President, ASAMI

Dr. Mangal Parihar
Vice President, ASAMI

Dr. PV Vasudevan
Senior ASAMI Faculty

Dr. Anur Sood
Secretary, ASAMI

INFECTED NON UNIONS: FEMUR

(SPEAKERS)

Dr. DS Menon
Senior faculty, ASAMI

Dr. Ashok Khosla
Senior faculty, ASAMI

Dr. Shrikumar Yadhav
ASAMI EC Member, EAST ZONE

Dr. Akrit Choudhan
State Representative RAJASTHAN

Case Presentations : 15 mins
Discussions : 10 mins

08/06/2025

ASAMI INDIA ACADEMICS
Sunday Breakfast Case Discussions

8th June, 2025 | 10AM IST

LIVE WEBINAR

(President) **(Moderators)** **(Presenters)**

Dr. Jayant Sharma
President, ASAMI

Dr. Mangal Parihar
Vice President, ASAMI

Dr. Rishi Kulkarni
Past President, ASAMI

Dr. PV Vasudevan
Senior faculty, ASAMI

Dr. Anur Sood
Secretary, ASAMI

Dr. Parvez Samra
Gujarat

Dr. Mohd Akbar
Gujarat

Dr. Arjun Goshal
Maharashtra

Dr. Vikash Sharma
Rajasthan

Demystifying the 'double-helix' deformity: an illustration of hexapod-assisted correction of a forearm pronation deformity

Authors: Dr Rajiv Kaul, Associate Professor (Ortho), AFMS

Case history and presentation:

A 46-yr old lady with an old history of meningoencephalitis in 1984, which required prolonged ICU admission and resulted in a twisted, non-functional left upper limb, presented to our centre for orthopaedic opinion regarding possibility of surgical correction. Unfortunately, her grotesque deformity had barred her from attending public/social gatherings for the past 30 years, for fear of being ostracized or ridiculed (figure 1). The case highlights the unique challenges faced in comprehending the various components of the deformity, choice of surgical armamentarium and the practical difficulties encountered intra- and post-operatively.

Figures with clinical details:

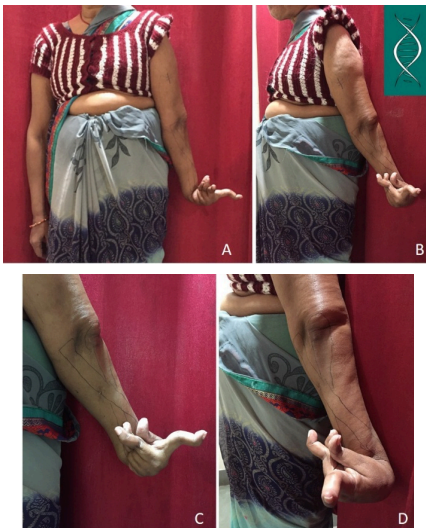


Figure 1: Front and side views of the left upper limb showing an internal rotation of the shoulder with elbow facing medially; forearm having a complete pronation contracture, similar to a 'double helix' (inset); wrist had a flexion contracture; multiple swan-neck deformities of fingers and thumb adduction contracture was present. The only preserved joint was the elbow, with 0-90° of flexion, however due to the shoulder contracture the elbow could be moved behind the back only.

Surgical planning and execution: The problem list included: 1. Internal rotational deformity at the gleno-humeral joint; 2. Elbow facing medially; 3. Forearm pronation contracture; 4. Wrist contracture; 5. Palm contracture; 6. Intrinsic muscle contractures; 7. Swan neck deformities fingers; 8. Thumb adduction contracture. To make the limb remotely functional or at the least, cosmetically acceptable, a comprehensive treatment strategy had to be devised, which would entail osteotomies, soft-tissue distraction, and multiple open/percutaneous releases. The plan for the hand and wrist included: 1. Extensile volar (Henry's) approach to the forearm & hand; 2. Fractional lengthening/Z lengthening of flexors; 3. Carpal tunnel release; 4. Percutaneous tenotomies for swan neck deformities; 5. Percutaneous intrinsic muscle releases;

6. Percutaneous adductor pollicis tenotomy; 7. Percutaneous Natatory ligament release. For the humerus, a de-rotational osteotomy using percutaneous drill-hole osteotomy and IM nailing was planned. For the forearm, hexapod (DEFTFIX) application was planned for gradual correction of the pronation contracture. For any residual wrist contracture and to suspend the fingers in maximally corrected position, an Ilizarov extension to the hexapod frame was planned. A pre-operative NCCT 3D (figure 2) with torsional profile (figure 3) helped calculate the amount of de-rotation required at the arm, and for programming the forearm de-rotation using the hexapod software. This was executed as illustrated in (figures 4-6).

Figure 2: Pre-op NCCT 3D showing a deformed gleno-humeral joint with severe arthritis, internal rotation of the arm, pronation at the forearm, wrist and finger deformities.



Figure 3: Torsional assessment from the NCCT scan showed a 90° internal rotation deformity at the elbow and around 60° pronation deformity at the forearm.

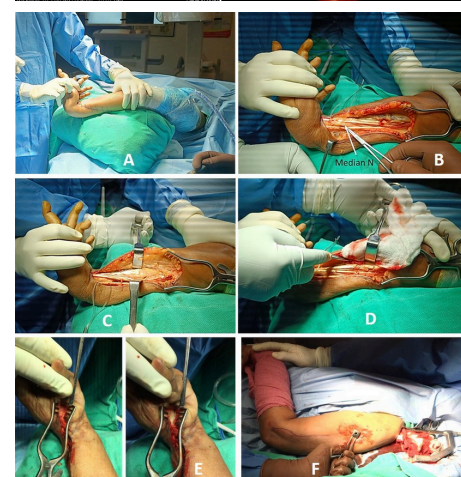
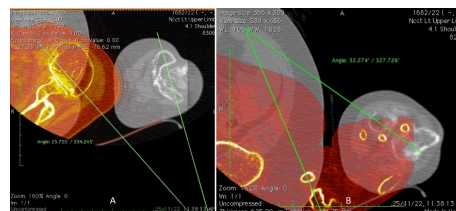


Figure 4A&B: Challenges faced while positioning the forearm for an extensile Henry's approach. The incision had to be a curvilinear one anticipating the course of the tendons and neurovascular structures; 4C&D: Fractional lengthening of FCR, FDS, FDP and FCU. Palmaris

longus was divided and sacrificed; 4E: Carpal tunnel decompression with percutaneous tenotomies for swan neck fingers, adductor pollicis and natatory ligaments (not shown); 4F: De-rotational osteotomy for humerus using antegrade IM Nail.

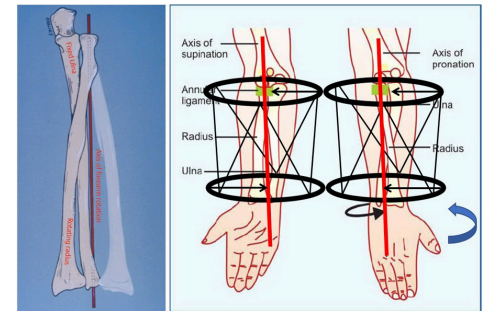


Figure 5: Planning of the hexapod assembly (DEFTFIX) and montage was done considering the axis of the forearm. The proximal ring was centered over the radial head with fixation in the proximal ulna only, and the distal ring centered over the ulnar head with fixation in the distal radius only.

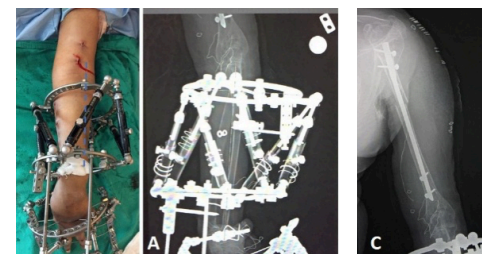
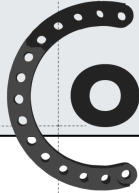


Figure 6A: Frame assembly AP view; 6B: lateral view with outriggers for wrist contracture correction; 6C: Xray after de-rotation osteotomy of humerus.



Figure 7: Post-op clinical images showing the sequential correction of wrist and forearm contractures by gradual de-rotation of the hexapod assembly. Extreme right image shows final intra-op image after removal of hexapod struts and conversion to Ilizarov connection rods for the consolidation phase.



Demystifying the 'double-helix' deformity: an illustration of hexapod-assisted correction of a forearm pronation deformity (contd.)

Author: Dr Rajiv Kaul, Associate Professor (Ortho), AFMS

Before



After



Figure 8: Clinical and radiological images comparing the deformity before (left) and after (right) complete correction.

Results: The time to correction was approximately 3 months. The patient was provided a customised wrist and forearm splint to retain the hand in functional position. Elbow, wrist and finger physiotherapy was provided. At the end of 12 months, she demonstrated normal elbow ROM of 0-150° flexion with the elbow facing forward, forearm arc of movement was 45°, wrist dorsiflexion was 0-30°, fingers were stiff despite all efforts and prehension was not possible, however, the cosmetic appearance was satisfactory and the patient was highly obliged at being able to face society without any apprehension.

Conclusion: The case highlights the scrupulous and painstaking planning that is essential to address complex multi-level deformities such as the present one. A combination of gradual and acute corrections enabled us to achieve a gratifying result in this rare and unique upper limb deformity.



Functional and radiological outcome of proximal tibia fractures managed with Ilizarov technique with or without minimal internal fixation

Authors: Gandhi Ketankumar, Joshi Satyen, Pangavane Sandip, Meher Akshaya, Vishal Patil

Abstract

Background: Proximal tibia fractures are often accompanied by extensive soft tissue injuries, which lead to frequent post-operative complications like wound dehiscence, infection, and non-union. In such injuries, there is a need for anatomical reduction and stable fixation for a good surgical outcome. The surgical procedures involving internal fixation have increased the complication rate of such fractures. Ilizarov ring fixation can provide stable fixation, does not need extensive soft tissue dissection, and encourages early mobilization.

Objectives: This study aimed to assess the functional and radiological outcome of proximal tibia fractures managed with Ilizarov technique with or without minimal internal fixation.

Methods: 35 patients with either intra-articular as well as extra-articular proximal tibia fractures between January 2018 and May 2022 were included in this study. All the included patients were operated on using Ilizarov technique. The functional outcome was assessed using the Modified Rasmussen Criteria for clinical assessment, and the radiological outcome by Modified Rasmussen Criteria for radiological assessment.

Results: All patients achieved radiological union at a mean duration of 16 weeks. Full weight-bearing was also allowed at a mean of 12 weeks. Functional results were excellent in 22 cases, good in 12 cases and poor in one. Most patients achieved functional range of motion at the knee joint (average flexion 128°) except one, who had a flexion of less than 110°. Axial malalignment of less than 10° was seen in 4 cases, and articular step of less than 5 mm was seen in 2 cases.

Conclusion: Ilizarov ring fixation is an excellent method of fixation in proximal tibia fractures, both extra-articular and intra-articular. It gives stable fixation, encourages early mobilization, has a higher union rate, and prevents damage to the soft tissue envelope, which is often compromised in such fractures.

The Wired Side of Ortho: Ilizarov Chronicles in Laughter

Author: Dr. Ravi Chauhan



She Wanted Commitment. He Wanted Latency Period.

Why did the anaesthesiologist break up with the Ilizarov surgeon? Because every time she said, Let's move forward, he insisted on gradual distraction at 1 mm per day

Rhythm of Rings, Melody of Screams — Welcome to Ilizarov Symphony

Q: How do you know an Ilizarov surgeon is operating?

A: There's an orchestra of drills, wires, hammers... and a weeping anaesthetist checking vitals every 30 seconds.

Ortho Reconstructs, Plastic Covers... Patient Just Wants Netflix

- Ilizarov Surgeon: We can save this limb with a frame.
- Plastic Surgeon: We can save the look with a flap.
- Patient: Can I just get Wi-Fi installed while you're both at it?

No Arguments, Just Adjustments

- Wife: Why do you love your Ilizarov set more than me?
- Ilizarov Surgeon: It's the only thing that doesn't argue... it just rotates when I ask

A case of Osteogenesis Imperfecta with Corrective osteotomy of all the four lower limb bones with 2 year follow up – Assisted Ambulation to Self-Ambulation

Authors: Dr Vijay Narasimman Reddy¹, Dr.Subramanya Gandhi¹

Department of Orthopaedics, Sree Balaji medical college & hospital, Chromepet, Chennai.

Abstract –

In this case report we will be discussing about a 23 year old male who had been diagnosed with Osteogenesis Imperfecta since childhood, presented to casualty with Right femur fracture following trivial injury. On examination patient was found to have deformity of all the four lower limbs and other clinical features of osteogenesis imperfecta. As patient is adult, our surgical options were corrective osteotomies and fixation with Intramedullary devices (Recon Nail or Tens nail) or External fixator. With the help of careful Pre operative planning and with availability of customized intramedullary devices as per our preoperative evaluation we were able to achieve good functional and radiological outcome.

Introduction –

Osteogenesis imperfecta is an inherited (genetic) bone disorder present at birth that all result in bones that break easily. The underlying mechanism is usually a problem with connective tissue due to a lack of, or poorly formed, type I collagen. In more than 90% of cases, OI occurs due to mutations in the COL1A1 or COL1A2 genes. Here, the author reports a case of Osteogenesis imperfecta who presented to our emergency room with a pathological fracture in the shaft of the femur for which operative intervention was carried out. On Examination the patient was found to have deformity of other three lower limb bones which was corrected operatively one after the other.

Case report –

23 year old IT professional male presented to our casualty with history of trivial fall sustained injury to right thigh. Complaints of pain and swelling over right thigh. Patient not able to stand following the fall. X-ray showed – Spiral fracture of proximal shaft of femur in already anterolateral bowed femur. Prior to the fracture, patient was ambulating with walker support due to the lower limb deformities. Other clinical features – blue sclera, Dentinogenesis imperfecta and hard of hearing are present. After a detailed clinical, radiological, and blood investigations, the patient was taken up for operative modality of intervention in the form of corrective osteotomy following the principles of deformity correction. Operative steps– corrective osteotomy was done at two levels above and below the fracture to correct the anterolateral bow of proximal femur so that Intramedullary nail can be passed. While performing corrective osteotomy there was splinter of the spiral fracture which was reduced using cerclage wire, following gentle serial reaming was done. 8 mm x 32 cm nail was passed. We attempted to use 2 head screws but as the neck length was short and head size was small, second head screw trajectory was outside the femur head. So we accepted single head screw. 5 months post surgery once the fracture has healed patient wanted us to correct the deformities of the other three lower limbs. Second deformity to be corrected was of Left tibia – 110 degree procurvatum deformity. This amount of deformity is not common in

osteogenesis imperfecta, patient gives history of fracture of left tibia at age of 5 years following that patient was treated by a native bone setter who did massage and applied native splints following which patient developed banana like deformity of left tibia which progressed to current deformity at maturity. CT scan of left tibia showed– 1. Obliteration of medullary canal in anterior bowed segment. 2. Tibiofibular synostosis in the deformity site. Surgery performed – Shish kabab procedure and removal of the entire deformed segment followed by serial reaming, passed a 8mm x 26 cm customised tibia nail with two locking screws proximally and distally and tendoachilles lengthening procedure for taut posterior soft tissues. Three months postoperative fracture started to heal. Third deformity to be corrected was of left femur – 50 degree oblique plane deformity of proximal femur for which osteotomy was done at two levels removing an anterolateral closing wedge of 25 degree at each level we used a Recon nail of 8 mm x 32 cm size. After three months, Fourth and final deformity to be corrected was of right tibia – 45 degree procurvatum deformity for which two level closing wedge osteotomies were done, stabilised with 30 cm x 8 mm customised nail. All deformity are corrected by shish kebab procedure using customized intramedullary devices. Now two year follow up the patient shows a good functional and radiological outcome. Patient was given single dose of Injection Zolendronic acid every year for the past two years. Patient is able to perform day to day activities like walking without any aid, squatting, sitting crossed leg and drive two wheeler. Patient has 3cm shortening of left lower limb compared with right lower limb, but patient was able to manage with heel rise slippers. Now is living a independent life without anyone support for his ambulation.

Discussion –

Diagnosis of osteogenesis imperfecta is often based on symptoms and may be confirmed by collagen biopsy or DNA sequencing. Although there is no cure, most cases of OI do not have a major effect on life expectancy, death during childhood from it is rare, and many adults with OI can achieve a significant degree of autonomy despite disability. Maintaining a healthy lifestyle by exercising, eating a balanced diet sufficient in vitamin D and calcium, and avoiding smoking can help prevent fractures. Genetic counselling may be sought by those with OI to prevent their children from inheriting the disorder from them. Treatment may include acute care of broken bones, pain medication, physical therapy, mobility aids such as leg braces and wheelchairs. Operative modality of treatment for OI patients has complications like infection, delayed union, non-union, refracture etc. which should be explained to patient before taking up for surgery. Preferred surgical treatment option in OI is mostly Intramedullary devices. Paediatrics patient – Rush rod, TENS nail, telescopic rods. Adults – Intramedullary interlocking nails. As Nails are load sharing devices and ideal for pathological bones.

Conclusion –

Recognition of these clinical and radiological signs is important to make the diagnosis of Osteogenesis imperfecta and prevent possible complications like delayed or non union, implant failure, infection, refractures etc. The intramedullary implants need to be maintained for life long as there is risk of fractures and bowing deformity post nail removal. Additional care must be taken in treating these patients.

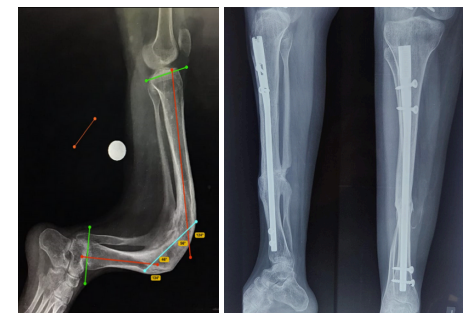
Clinical pictures and xray.



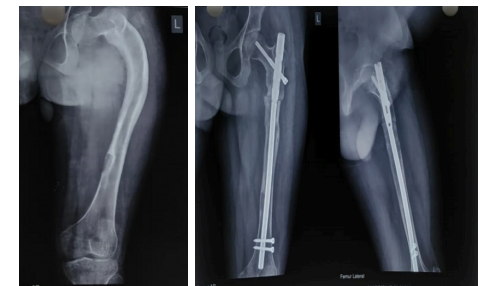
1] Pre op clinical photo (front & side)



2] Right femur Pre op xray and 1 year follow up xray



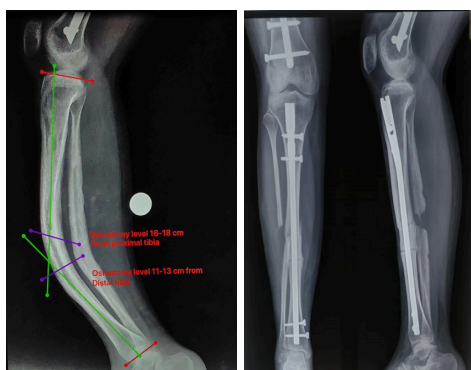
3] Left tibia 110 degree procurvatum deformity Pre op and 12 months post op x-ray.



4] Left femur – 50 degree oblique plan deformity Pre op and 9 months Post op x-ray

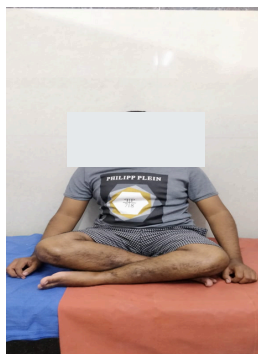
A case of Osteogenesis Imperfecta with Corrective osteotomy of all the four lower limb bones with 2 year follow up – Assisted Ambulation to Self-Ambulation (contd.)

Authors: Dr Vijay Narasimman Reddy¹, Dr.Subramanya Gandhi¹
Department of Orthopaedics, Sree Balaji medical college & hospital , chrome pet , Chennai.



5] Right Tibia – 45 degree procurvatum deformity Preop and 1 year follow up.

6] Functional Outcome



Upcoming Events

ASAMI INDIA MID TERM MEET

12-13 July, 2025, Patna

Venue: Hotel Lemon Tree, Patna

Under Aegis of BOA

Organised by ASAMI India

Highlights:

- ✓ Hands on Workshop
- ✓ Eminent National Faculty
- ✓ Interesting Case Discussions
- ✓ Meet the Masters
- ✓ PG Quiz, Free Papers
- ✓ Faculty Development Program

Scientific Program:

- Saw Bone Workshop
 - HTO with Ilizarov
 - TCVO
 - DFO/SCO (Distal Femoral Osteotomy)
- Demo Workshop
 - Knee Arthrodesis Frame
 - Knee Contracture Frame
 - Knee Periarticular Fracture

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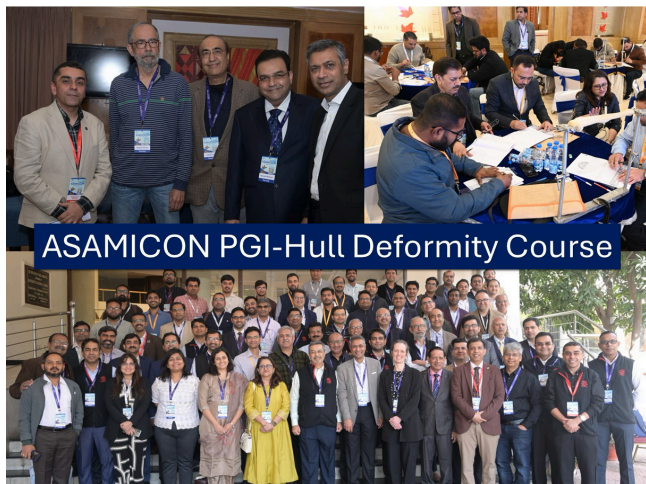
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Mastering the Basics, Innovating the Future – ASAMICON 2025 Chronicles Celebrating Surgical Skill, Digital Innovation, and Collaborative Learning

ASAMICON 2025, held from 6th to 9th February at PGIMER Chandigarh, was a landmark gathering that brought together the finest minds in orthopedic deformity correction, Ilizarov methodology, and limb reconstruction. The event, hosted with meticulous attention to academic quality and scientific content, was helmed by Dr. Rajat Aggarwal and Dr. R.K. Kanojia as Organizing Chairmen, with Dr. Siddhartha Sharma and Dr. Shamsul Hoda serving as Organizing Secretaries and Dr. Ruta Kulkarni as the Scientific Committee chairman. Organized by the Department of Orthopaedics, PGIMER in collaboration with ASAMI India, the four-day conference was a celebration of surgical precision, biomechanical understanding, and global collaboration. With the theme “Mastering the Basics, Innovating the Future,” the conference blended foundational orthopedic teaching with cutting-edge innovations in deformity correction. Awarded 15 CME credit points by the Punjab Medical Council, the academic program drew over 220 delegates from across India, along with a strong international presence.

The event began with two pre-conference workshops that set the tone for the days to follow. The **Hull-PGI Deformity Course**, convened by Prof. Hemant Sharma and Dr. Elizabeth Moulder from the United Kingdom was a comprehensive primer on lower limb deformity correction. Starting with joint orientation and radiographic principles, the course walked delegates through coronal and sagittal plane corrections, femoral planning, and multiapical deformities. These modules were reinforced through guided planning sessions and intensive sawbone workshops. In particular, the uniplanar Ilizarov correction and fixator-assisted deformity simulations offered tactile understanding of the nuances involved. An advanced session on oblique plane deformities capped off the course with high engagement, enabling delegates to translate planning into technique.



In parallel, the first of its kind **3D Printing and Artificial Intelligence in Orthopedics Workshop** introduced surgeons to the digital future of surgery. Delegates learned how to segment CT scans, convert files into printable models, and operate entry-level 3D printers. Supported by the Indian Council for Medical Research and international collaborators from Foot and Ankle Research and Innovation Laboratory, Harvard Medical School, Department of Orthopedics, University of Ghent, and Department of Orthopedics, Istanbul University, the workshop also explored material sciences, hardware choices, and real-time 3D printing. The AI module, using GPT-based tools like ChatGPT, focused on protocol writing, research brainstorming, and critical appraisal of literature. Participants discussed practical applications and limitations of AI, with case-based exercises and ethical debates rounding out this high-tech training.



The second day began with the first of its kind **Faculty Development Program**, a session designed to elevate teaching quality and academic communication. Spearheaded by Prof. Mandeep Dhillon and Dr. Mangal Parihar, the program offered insights on building impactful presentations, structuring postgraduate lectures, and maintaining clinical engagement. After this session, the **Ilizarov Masterclass** series, which included high-yield focused talks by masters of deformity correction, addressed surgical planning and execution in cases of genu valgum, segmental gap defects, and limb shortening.

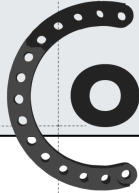


The academic program on day three broadened its focus to include pediatric deformities, upper limb malunions, pathological fractures, and bone loss management. Sessions on differential distraction, fibular hemimelia, CTEV, and pediatric hip reconstruction provided a wide clinical canvas. The **ASAMI-IFAS Foot and Ankle Session** stood out for its case-driven format, addressing neglected calcaneal dislocations, TTC nailing, Charcot reconstruction, and midfoot collapse. The day's centerpiece was the Russian Ilizarov Center Session, which offered attendees rare access to original techniques, surgical philosophies, and video demonstrations from Kurgan.

That same day, Prof. Alexander Kirienko delivered the **Prof. G.S. Kulkarni Oration** on “History and Development of Foot Surgery with Ilizarov.” His oration was a tour de force, weaving together historical insights, surgical evolution, and the philosophical roots of the Ilizarov method. Delegates responded with standing ovations—testimony to the oration’s blend of humility, heritage, and technical wisdom.

The final day opened with a detailed exploration of osteotomies around the knee. Sessions covered pre-operative planning, distal femoral osteotomy, and valgus knee correction. Delegates then participated in live sawbone workshops on high tibial osteotomy (HTO) and tibial condylar valgus osteotomy (TCVO), gaining hands-on experience with both conventional and frame-based techniques. The **ASAMICON Plenary Oration** was delivered by Prof. Nobuyuki Takenaka from Japan on “The Ilizarov Method and Intra-Articular Osteotomy,” followed by live demonstrations that contextualized his concepts in surgical practice.

Later that morning, Dr. Ruta Kulkarni delivered the **Dr. R.A. Agrawal Oration** titled “ASAMI India: My Journey,” offering a deeply personal and inspiring reflection on the society’s trajectory and her pivotal role within it. Afternoon sessions ranged from polio correction to managing osteoporotic fractures with external fixators. Talks explored the future of hexapod-assisted deformity correction, fixator at-risk signs, segmental gap reconstructions, and long-term outcome strategies. The concluding sessions focused on service delivery models and the integration of innovation with surgical basics.



Mastering the Basics, Innovating the Future – ASAMICON 2025 Chronicles Celebrating Surgical Skill, Digital Innovation, and Collaborative Learning (contd.)



ASAMICON 2025 culminated with the **Dr. H.R. Jhunjunwala Best Paper Session** and the **ASAMICON Best Trainee Presentations**, showcasing original research on limb lengthening, distraction osteogenesis, infected nonunion management, and hybrid fixation. These sessions not only reflected methodological rigour but also hinted at the future of Indian orthopedic research.

With a perfect blend of pre-conference hands-on workshops, academic structure, world-class orations, and forward-looking technology sessions, ASAMICON 2025 truly embodied its theme—mastering the basics while innovating the future. The event reaffirmed ASAMI India's leadership in global orthopedic education and highlighted PGIMER's commitment to excellence in clinical science and surgical innovation.

The Bigger, the Better? Two-ring circular frames and duration of treatment in the management of tibial fractures: A retrospective cohort study. (Jhunjunwala Gold Medal Paper)

Author: Dr. Chirag Manwani

This retrospective cohort study assessed whether the number of rings in circular external fixator constructs—specifically two-ring versus three-or-more-ring configurations—affects healing outcomes in tibial fractures. While biomechanical literature suggests increased stiffness with more complex constructs, clinical evidence comparing different frame configurations remains limited.

The study was conducted at a single limb reconstruction center. Of the initial cohort, 19 patients were excluded due to repatriation (n=10), amputation prior to union (n=3), death (n=3), and loss to follow-up (n=3), leaving 169 patients for analysis. Among these, 104 patients were treated with two-ring constructs, and 65 received three-or-more-ring constructs.

The primary outcome was time spent in the external fixator. Secondary outcomes included malunion incidence and requirement for additional surgical procedures to achieve union. Demographic and clinical variables—such as age, gender, comorbidities, and smoking status—were collected, and final limb alignment was assessed using TraumaCAD software approximately one year after frame removal.

Results demonstrated that the two-ring group had a significantly shorter duration in frame—approximately one month less—compared to the three-or-more-ring group. There was no significant difference between the groups in terms of malunion rates or need for secondary surgical interventions.

Multivariate regression analysis identified smoking as the only patient-related factor significantly associated with prolonged healing time (p=0.002). Additionally, the presence of segmental fractures, open fractures, and use of 3+ ring constructs were independently associated with increased time to union. There was no significant difference in outcomes based on the operating surgeon.

In conclusion, two-ring frame constructs are non-inferior to more complex configurations in terms of clinical outcomes and healing time. Given potential advantages—including reduced implant cost, lower weight, faster application, and improved patient comfort—two-ring constructs present a viable option in appropriate fracture cases.

The Wired Side of Ortho: Ilizarov Chronicles in Laughter

Author: Dr. Ravi Chauhan



Fixator or Space Station?

- PG: Sir, this fixator looks like a space station
- Ilizarov Surgeon: Exactly. Now go orbit the patient and check the pin sites.

When Surgery Meets Soundtrack

- Arthroscopy Surgeon: We need chill music – soft jazz
- Ilizarov Surgeon: Bring in Metallica. This is not surgery. This is construction
-

Marriage Advice

- Joint Replacement Surgeon: One smooth replacement and peace forever.
- Ilizarov Surgeon: Married life is like a frame – constant adjustments and long fixator time

One Wrong Move

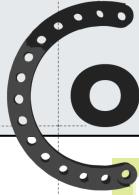
- Spine Surgeon: One wrong move and it's paralysis.
- Ilizarov Surgeon: One wrong turn and the frame turns into modern art.

When in doubt, trust the rings

- Nurse: Sir, the patient says his leg looks like a satellite dish.
- Ilizarov Surgeon: Good. That means it's aligned with the universe.

Where Biomechanics Meets Broken Hearts.

- Nurse: Sir, how tight should this wire be?
- Ilizarov Surgeon: Like your last breakup – tense, but holding together.



Use of Ilizarov ring fixator as an adjunct for limb reconstruction in a child of Paley V tibia hemimelia

Ayesha Mohapatra [Senior Resident, Orthopedics, AIIMS, Bhopal]

Dr Prateek Behera [Additional Professor, Orthopedics, AIIMS, Bhopal]

Introduction-

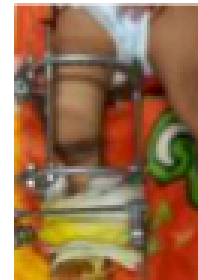
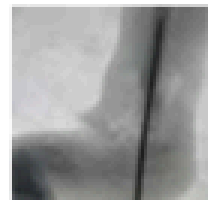
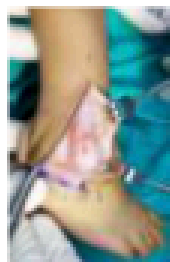
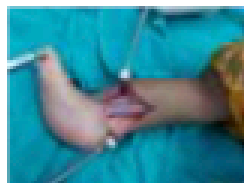
An 8 month old infant presented with deformed right lower limb with equino-varus foot, knee flexion contracture. On examination & radiological investigations, she had an intact patella, quadriceps apparatus with complete absence of tibial cartilaginous anlage; diagnosed as Pre-axial longitudinal deficiency, Paley-3A tibia hemimelia.

The original procedure described by Paley comprised of application of six-axis external fixator frame spanning knee and ankle to distract the knee joint over weeks to correct flexion deformity; in later sitting by re-adjustment of foot spanning frame to centralise talus under distal fibula epiphysis. This was followed by modified Weber Patelloplasty and re-application of ring fixator for stabilisation of the thus obtained conformed patella on the undersurface of distal femur.

Due to lack of logistics for use of six-axis, Ilizarov fixator was used combining principles of Pediatric Orthopaedics with those of deformity correction toward achieving the same goal as Paley's procedure.

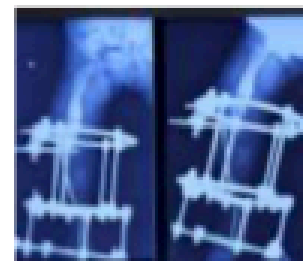
Stage-1

Postero-medial approach -> a-la-carte PMSTR with TA tenotomy; Antero-lateral approach -> fibula shortening and centralisation over talus to achieve synchondrosis articulation; stabilisation with a retrograde wire, equinus correction and Ilizarov frame stabilisation.



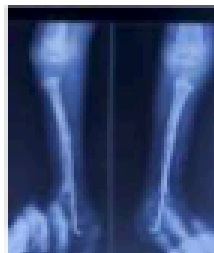
Stage-2

(after 8 months) Weber patelo-fibular arthroplasty by fashioning Viscor flaps, Semitendinosus and Biceps femoris releases, fusion of the patella ossific nucleus with proximal fibula -> stable, conformed patella under distal femur physis to function as future proximal tibial plateau.



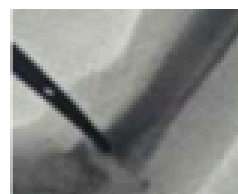
Stage-3

frame removal with retention of fibula intramedullary wire and ambulation with KAFO.

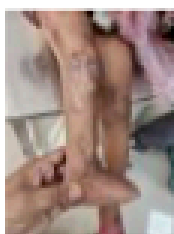


Stage-4

(after 2 years) fusion of distal fibulo-talar synchondrosis in view of continued pain with iliac crest bone grafting.



Final follow-up at 3 years with some residual forefoot adductus and limb length inequality, walking with a shoe raise.



Discussion

In cases of tibia hemimelia with complete agenesis, where previously foot or below knee amputation was considered in view of failure to achieve stability, despite resource limitations, and being fraught with challenges, attempt to retain the lower limb's functionality by use of principles of limb salvage & fixators obviates the need of limb sacrifice and allows a normal childhood.

Humerus Fracture with Gap

Author: Dr Kuldip Parmar, Ilizarov Surgeon, Rajkot

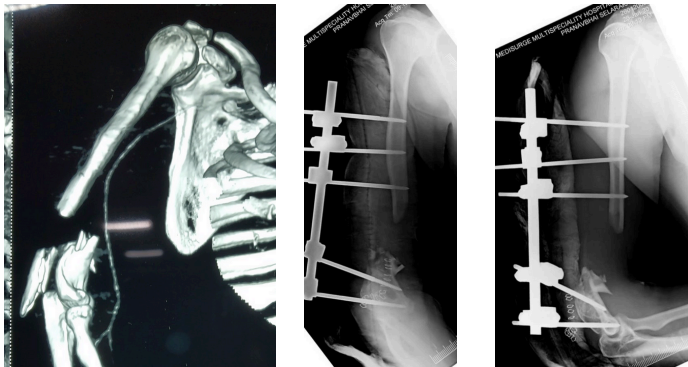
Humerus Gap Nonunion are sometimes challenging, as bone gap is there.

Sometimes it may have concurrent radial N palsy.

As of general rule, in upper extremity up to 4 cm shortening in humerus doesn't affect more of functional outcome, even though with modern technique of plates, nail, and for gap like hybrid ilizarov fixation, we can get both the length and better functional outcome for the patient,

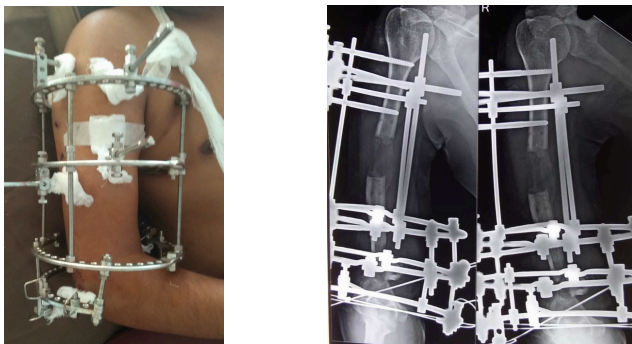
This presented case shows the pt. had around 4 CMS of bone loss in open distal humerus fracture,, which was initially dealt with AO external fixator, and then we did ring fixator and proximal humeral corticotomy for the gap we had, later on open docking and BG was done, but it didn't lead to union, so finally we shift him to dual distal humeral plating and after 4 months of plating, patient returned to his pre injury function. No doubt during the treatment period pt twice developed pin sites infection and once 5-day oral Ab course was suffice later we had to exchange the wire.

Young male/30 years
open # with bone loss around 4 cms dominant Hand
Rx initially with Ex fix
After 2 weeks Ring fixation done with Proximal humeral corticotomy done.

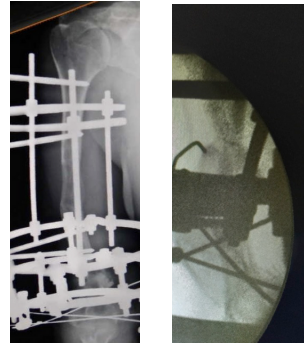


Post op

1.5 months FUP BG & readjustment @ Distal NU site



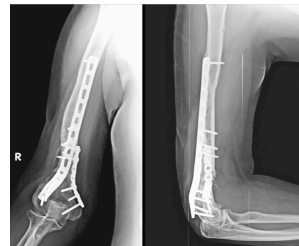
@ 8 months FUP Bone was not healing distally, regenerate was good though.



@ 8 months FUP Plating BG done distally & bypassed regenerate



1 YR (4 months FUP Plating) since injury Healed well



Functions @ 1 Year



Conclusions:

1. Gap in U/L tolerated well up to 4 CM shortening of bone and accepted.
2. But with Ilizarov frame one can get up to near normal length without compromising functional outcomes.
3. With advances of science cosmesis comes in to play.

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L I F E S C I E N C E S

