

DEPARTMENT OF ORTHOPEDICS, DR. SCGMC, NANDED

Functions & Objectives

FUNCTION AND ACTIVITIES

A. Undergraduate- teaching training and Research:

In this department training is given to Undergraduate students as per NMC Norms (CBME PATTERN) regarding various aspects of trauma, first aid and other musculoskeletal disorders for certain period of time. These trainings are given in the form of lectures, practical, experiments, seminars, short group discussions. Visits to Operation theaters and wards are also carried out.

MBBS Teaching:

THEORY LECTURES

Theory lectures are taken by the faculty from 3-4 pm on Tuesday and Thursday and 4-5 pm on Friday.



Clinical posting teaching daily from 09am to 12pm.





Group Discussion with Expert Faculty

- **MONDAY** - UG students active participation in plaster application techniques in O.P.D plaster room.



Fig 5. Clinical demonstration of plaster application to interns)

- **TUESDAY** -UG teaching in OT – operative teaching
-suture technique teaching



- **WEDNESDAY** – Long case history taking.
- **THURSDAY** - UG student participation and assist in practical cases in Operation theatre.



- **FRIDAY** - Bed side clinic and group discussion.

UG students Ward Round with bed side clinic



□ **Saturday XRAY** discussion



B. Internship Training:

It is mandatory to complete 1 year internship after passing MBBS. Internship includes one month of training under the department of Orthopedic. Interns are posted at wards, O.P.D, casualty and in the operation theaters to understand how to tackle the array of complains that can be presented to an orthopedic surgeon.



-Hands on major surgeries like spine operations, joint replacement, limb lengthening and deformity corrections and advanced latest surgery like Arthroscopic knee and shoulder surgeries, Endoscopic Discectomy, Interlaminar decompression, Minimal invasive spine and plating surgeries Etc.

-Academic activities in the form of seminars / Case Presentations / surgical audit/Journal Clubs / X-ray Discussions/short case and long case discussions are held daily, from 3 -5 p.m. (Monday to Saturday) and Grand Rounds on Wednesday and Friday.

C. Post graduate training Programme:

- i. Attending the P.G. Teaching Courses
- ii. Attending conferences, Hands on workshops, Case presentation/poster in national conferences .

- Publications of Article and Unusual Case Report in NMC Norms National & International Conferences every year during P.G. Training.

-For surgical demonstrations, the department has a video camera with the help of which interesting and rare surgeries are recorded for academic presentation purposes. Postgraduates are exposed to super speciality work in Orthopedic.

-They also have a chance to attend various postgraduate instructional and teaching courses, Conferences and Workshop.

-Residents also get hands on cadaveric dissection in the department with guidance from Senior Faculties to sharpen surgical skills while dissection.

-Postgraduates are given full facilities (within our resources) and responsibilities; in OPD, IPD, OT and casualty, where they work under the direct supervision of consultants & senior residents.

-The department organizes regular MMC Accredited CME, Guest Lectures, symposia and seminars of national and state levels. Also, extension and extra-mural lectures are organized on regular basis.

Post Graduation Training schedule in department- As Per Latest NMC Guidelines and CBME Teaching Programme.

- Case presentation: **Monday and Friday**



- **Journal Club: Every Tuesday**



- **Grand Round: Wednesday and Friday**



- Surgical audit: **Every Wednesday**



- Seminar (Power point presentation) Classes on X-ray, instruments, orthosis, splints & specimens: **Every Thursday**



- Research work on Publication & Conferences: **weekly discuss about the publications by residents and about the various advancements in field of Orthopaedics**
- Cadaveric dissection: **Twice in month ***



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- **Death Review meeting: Once every Month***



- **Clinical Pathological conference: Once in every month***
- **Lectures (separately held for PG students): Twice in a every month***

- Guest lectures: **Once in 3 months***



- **Video film webinar: Once in a month***
- U. G. Clinical classes M.B.B.S final year Students by P.G. Students-Once every week



- Demonstration and practical training in elective and emergency O.T. for P.G. Students.
- **Death Meeting: Once in a month ***

- [log book](#): **maintained weekly**

Advantages of perusing M.S. ORTHOPEDICS from our institution

- Recognized degree M.S. ORTHOPEDICS seats
- Exposure and hands on in major Orthopedic surgeries
- Individual hands on in trauma cases under expert guidance.
- Advance instrumentation and fully upgraded modular operation theatres.
- Academic activities like case presentation, journal readings, discussions and cadaveric discussion to improve clinical knowledge and to give a cutting edge to your surgical skill
- Regular CME, Guest Lectures, symposia and seminars of national and state levels
- Residents get to attend national level CME, lecture series, hands on workshop
- Residents not only excel in academic activities but also in sports with available gymnasium in university campus with fully equipped courts for training in favourite sports.

F. OTHER ACTIVITIES

i. PHYSIOTHERAPY UNIT, DEPARTMENT OF ORTHOPEDICS

The Physiotherapy unit is equipped with latest equipment providing best adjunct to the physiotherapeutic management including diagnostic, prognostic and therapeutic functions for timely screening and interventions.

- S.W.D
- Microwave diathermy
- Shoulder, Knee CPM
- TENS
- Interferential therapy
- Lumbar Traction and cervical Traction
- Paraffin wax bath
- Hot packs

**Department contribution and active participation in
various social activity, periphery camps and others.**

1. **Mahatma Jyotiba Phule Jan Arogya Yojana:** The operations for all the needy and poor patients in the orthopedic ward are conducted free of cost under the MJPJAY and PMJAY scheme.

55-65% of the total MJPJAY registration in this hospital are done by the Orthopedic department and for this, Regularly Appreciation by Dean, Higher Authorities of Medical Education and an Appreciation letter by the District Collector, Nanded was awarded to this Department.

Present department started Total hip replacement and Total knee replacement and endoscopic spine surgeries under MJPJAY Scheme.

2. **Contribution of Orthopedic department in COVID-19:** According to the motto “Services for humanity” Dr. SCGMC hospital Nanded established a well-Equipped covid care center within a very short period of time during the pandemic.

Our department provide exemplary service in patient care during covid 19 and also publish article on orthopedic involvement in management of covid patients.



ARTICLE ON CONTRIBUTION OF DEPARTMENT OF ORTHOPAEDICS DURING COVID-19 PANDEMIC

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ABSTRACT

The corona virus disease 2019 (COVID-19) pandemic has revolutionized global healthcare in an unprecedented way and with unimaginable repercussions. Resource reallocation, socioeconomic confinement and reorganization of production activities are current challenges being faced both at the national and international levels, in a frame of uncertainty and fear. Hospitals have been restructured to provide the best care to COVID-19 patients while adopting preventive strategies not to spread the infection among healthcare providers and patients affected by other diseases. As a consequence, the concepts of urgency and indications for elective treatments have been profoundly reshaped. In addition, several providers have been recruited in COVID-19 departments despite their original occupation, resulting in a profound rearrangement of both inpatient and outpatient care. Orthopaedic daily practice has been significantly affected by the pandemic. Surgical indications have been reformulated, with elective cases being promptly postponed and urgent interventions requiring exceptional attention, especially in suspected or COVID-19+ patients. This has made a strong impact on inpatient management, with the need of a dedicated staff, patient isolation and restrictive visiting hour policies. On the other hand, outpatient visits have been limited to reduce contacts between patients and the hospital personnel, with considerable consequences on post-operative quality of care and the human side of medical practice.

KEYWORDS: Orthopaedic surgery, COVID-19, SARS-CoV-2, Coronavirus, Surgical indication, PPE, Education, Telemedicine, Surgical algorithm, Elective surgery.

INTRODUCTION

Corona viruses are a group of viruses that mainly affect human beings through animal transmission. It is the third time, the emergence of novel corona virus in last two decades, Severe acute respiratory syndrome (SARS) in 2003, Middle East respiratory syndrome corona virus (MERS-CoV) in 2012 and novel severe acute respiratory syndrome corona virus (SARS-CoV-2)-induced pneumonia (COVID-19). The novel coronavirus first emerged in Wuhan, China in December 2019 from the wet seafood market. COVID-19 was regarded as a public health emergency of international concern in the world by mid-February 2020. The epicentre of the pandemic shifted from Europe to USA from time to time. The number of cases and deaths increased day by day and the infection spread to almost every corner of the world. The hospitals became hot zones for the treatment as well as transmission of COVID-19 due to a rise in the community transmission. Orthopaedic surgeries including both elective and emergency procedures (trauma patients) require operation theatres which are high-risk zones for transmission of COVID-19, risks health care workers contracting this illness and decreasing the resources available to the population of India during this pandemic. The high prevalence of COVID-19, limited resources and staff, increased risks of transmission and the burden on health systems during this pandemic. Despite all this, the Dept. of Orthopaedics at Dr. SCGMC Nanded acted immediately to support essential surgical care while protecting patients and staff and conserving valuable resources.

Orthopaedic Patients Expected During Lockdown Period

1. Trauma.
2. History of fall at home, the neck of femur fracture in elderly.
3. History of assault.
4. Severe cervical or lumbar pain.
5. Post-operative cases for wound dressing or suture removal.
6. Postoperative surgical site infections.
7. Elective cases with severe symptoms.

Department Of Orthopaedics Of Dr. Sogant

According to the motto "Services for humanity" Dr. SCGMC

hospital Nanded established a well equipped covid care centre within a very short period of time during the pandemic.

The Department of Orthopaedics at Dr. Shankarrao Chavan Government Medical college & hospital was started in the year 1991 with a vision to create knowledge, advance learning, and improve the musculoskeletal health of the community.

We aim at providing Highest quality of health care to all from the poorest to the richest.

Modular OTs

There are three state of the art modular operation theatres equipped with Laminar Air flow, Pendone and LED lights.



Figure 1 Modular OTs

Different Speciality Clinics Provided By Orthopaedic Department

- a) Trauma - Simple & Complex
- b) Joint Replacement Surgeries
- c) Spine Surgery
- d) Arthroscopy
- e) Paediatric Orthopaedics
- f) Orthopaedic Oncology

a) Trauma - Simple & Complex

Long bones of Upper and Lower limbs, Spine & Pelvi-

CURE India: Total 410 CTEV deformed children are taking treatment by Ponsetti method. The Department in Consultation with the University administration has signed a memorandum of understanding with CURE India Limited for the management of CTEV. Club Foot (CTEV), DDH, Perthe's disease, congenital deformity correction, Torticollis surgeries and other paediatric orthopedic Problems are performed with ease here. The Department in Consultation with the University administration has signed a memorandum of understanding with CURE India Limited for the management of CTEV.





Photo of CTEV camp organised by orthopaedic department of Dr SCGMC NANDED

3. **Prosthetics distribution Camp:** Various prosthetics, Callipers, Wheel Chairs were distributed for the needy and poor patients through the government aided NGOs.
4. **Gurutagaddi tri shatabdisohala 2008**-Orthopedic department done active participation and patient care, operation In-gurutagaddi tri-shatabdisohala at Nanded in 2008. in this our department does operations on pilgrims at GMC Nanded.
5. **SARWASHIKSHA ABHIYAN** – orthopedically handicapped students were examined and promoted this patients for disability corrections operations/ splints during this abhiyan and conducted corrective surgeries.

6. **Free Wheelchair and Walker Distribution to Poor & Needy Patients** – Department of Orthopedic distributed 13 Wheelchairs to the needy orthopedically disabled patients.

7. **Kinwat Health camp 2017** – Department of Orthopedic participated actively in health camp organised by Govt of Maharashtra at Kinwat where patients were screened for operations and brought to the hospital for operative procedures.



Kinwat Health camp 2017 organised by Orthopaedic department of Dr SCGMC NANDED

8. **Hingoli Health camp 2019** – Department of Orthopedic participated actively in health camp organised by Govt of Maharashtra at Hingoli where patients were screened for operative intervention and followed up in our institution for operative intervention.



Hingoli Health camp 2019 organised by Orthopaedic department of Dr SCGMC NANDED

9. **Health camp by various NGO-** Department of Orthopedic, Nanded has also participated actively in health camp organised by different NGOs. In June 2019

Resident Doctors participate in Health camp organised by an NGO SatysaiSevaSamiti, Nanded.

10. **Knee Joint Replacement Health camp in Vasmat Dist. Hingoli.**

Orthopedics department gave an active participation in the vasmat camp for

Geriatric Patients were Evaluated and selected for that some patients were operated in GMC, Nanded.



Resident Doctors received appreciation award at Vasmat TKR CAMP



Guest lecture on public awareness about total knee replacement by Ortho residents

Department of Orthopedic, Nanded has participated actively in health camp organised by Aarogya Seva

11. Medical Health camp at Hingoli



Felicitation of Orthopardic Faculty for Active participation

As per Government of Maharashtra a series of campaign held at various Talukas of Nanded for screening and issuing UDID Online handicap certificates.

Handicap camp organised by Orthopaedic department of Dr SCGMC NANDED IN 2022



12. Women's Day (8march)-Yearly Osteoporosis BMD Health Check-up 2022



BMD Health check up -2023



BMD Health check up -2024





B. THRUST AREA OF THE DEPARTMENT

- i. **Joint Replacement:** Hip & Knee Arthroplasty, Total Hip & Knee Replacement is

regularly being done in the department.

Total Hip replacement is done through anterior approach, so that the chance of dislocation of hip is rare. As a result, patient is able to do daily activity without pain and deformity after surgery.



B. THRUST AREA OF THE DEPARTMENT

- i. **Joint Replacement:** Hip & Knee Arthroplasty, Total Hip & Knee Replacement is

(Fig 7 & 8 - post operative radiographs of arthroplasty done in department a. THR &Hemiarthroplasty b. TKR)



(PREOPERATIVE AND POSTOPERATIVE XRAY OF TOTAL HP ARTHROPLASTY OF RIGHT HIP)

ii. **Spine Surgery:** Basic and complex spine surgeries are done on a regular basis including,

- For cervical, thoracic and lumbar spine, various surgeries including anterior decompression with rods and plates are performed.
- For infective pathology of the spine, minimally invasive spine surgery are routinely done by the latest technologies.
- Various spine fusion surgeries are done with/without implants.
- Spine TLIF
- MIS (Minimal Invasive Spine Surgery) surgery for PID
- Fixation systems for fractures

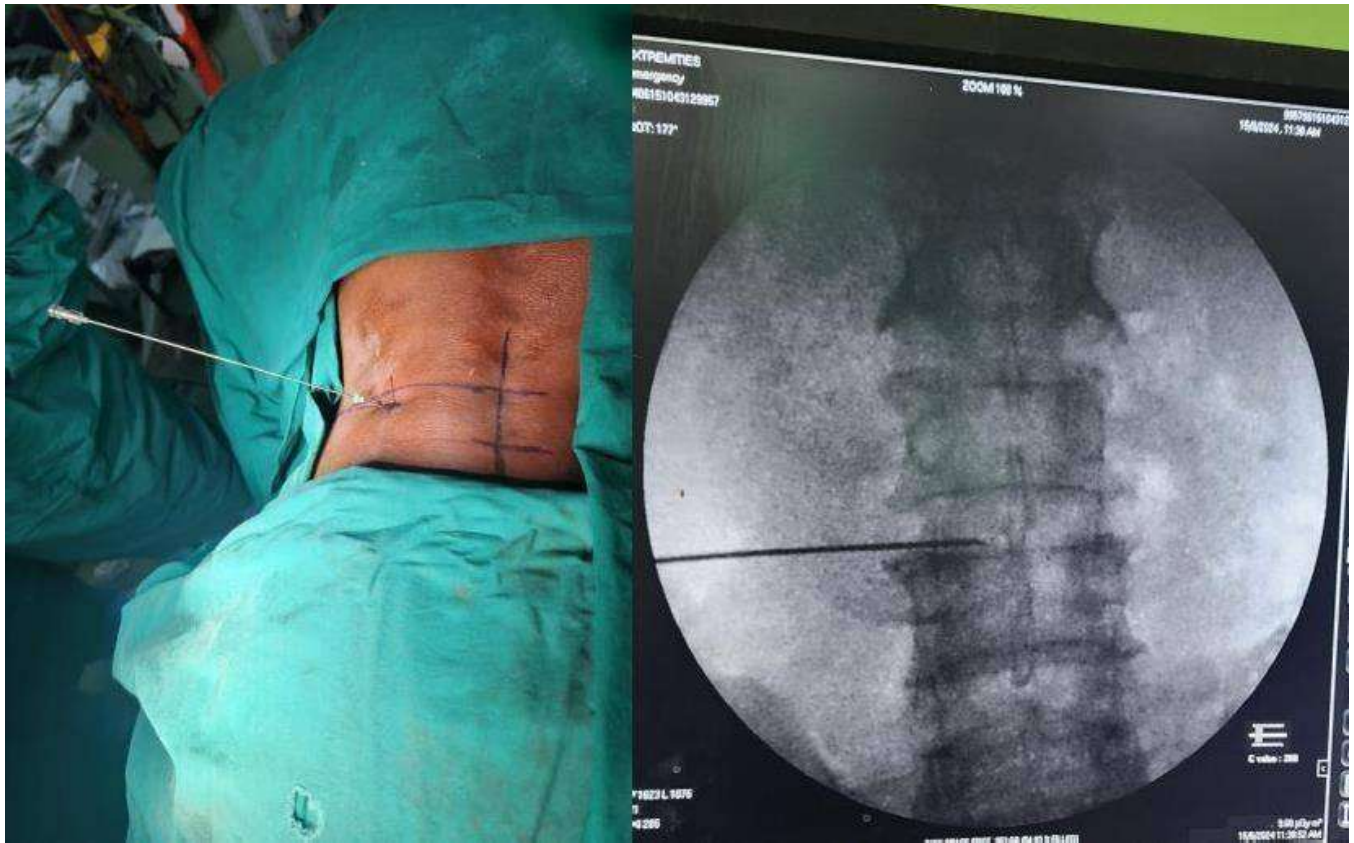
- Surgery for correction of spinal deformities
- Surgery for tuberculosis of spine



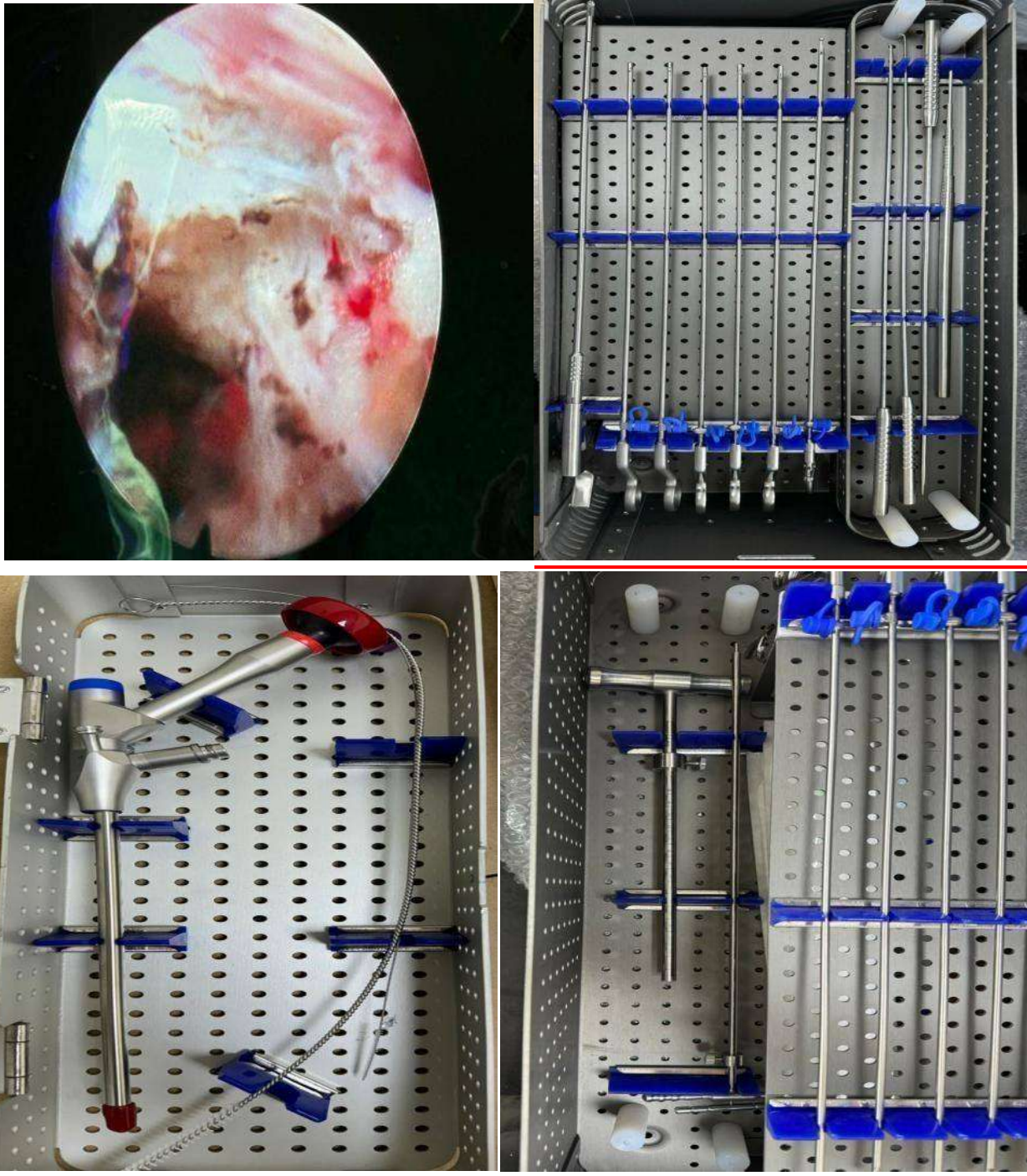
(Fig- cervical spine operation [lateral mass plating] intra operative fluroscopy photograph)



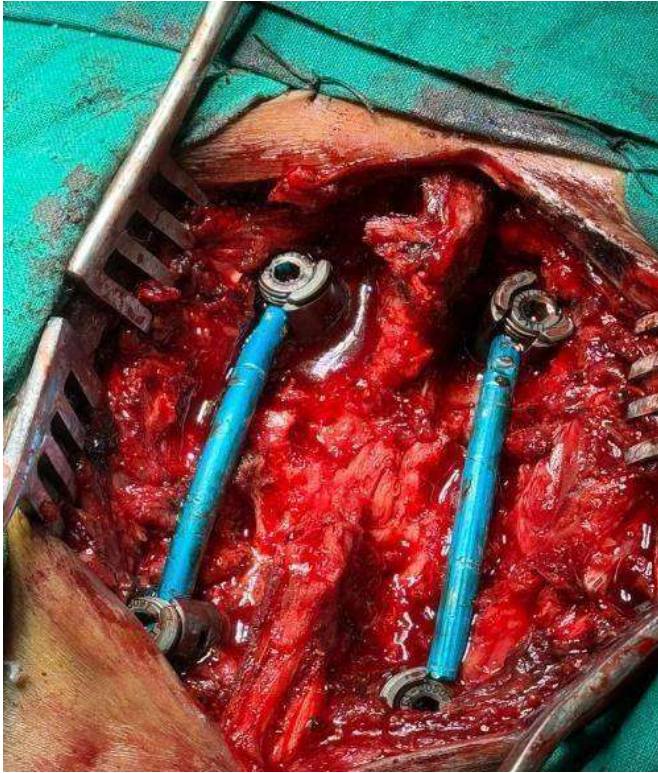
(Fig-intraoperative photograph of MIS [minimally invasive Pedicle screw Spine surgery])



(intraoperative and fluoroscopic image of transforaminal approach for endoscopic Dissectomy)



(Fig -Endoscopic Spine Surgery instrumentation)



A



B

(A-Intraoperative image of open lumbar pedicle screw fixation)

(B- Intraoperative image of extra spinal intra medullary excision of D7-D10 hemangioma)

iii. Arthroscopy & Sports Medicine:

Arthroscopic or keyhole surgeries to treat disorders of the knees are routinely performed. Our experienced orthopedic surgeons can diagnose and treat many types of bone and joint problems using minimally invasive techniques.

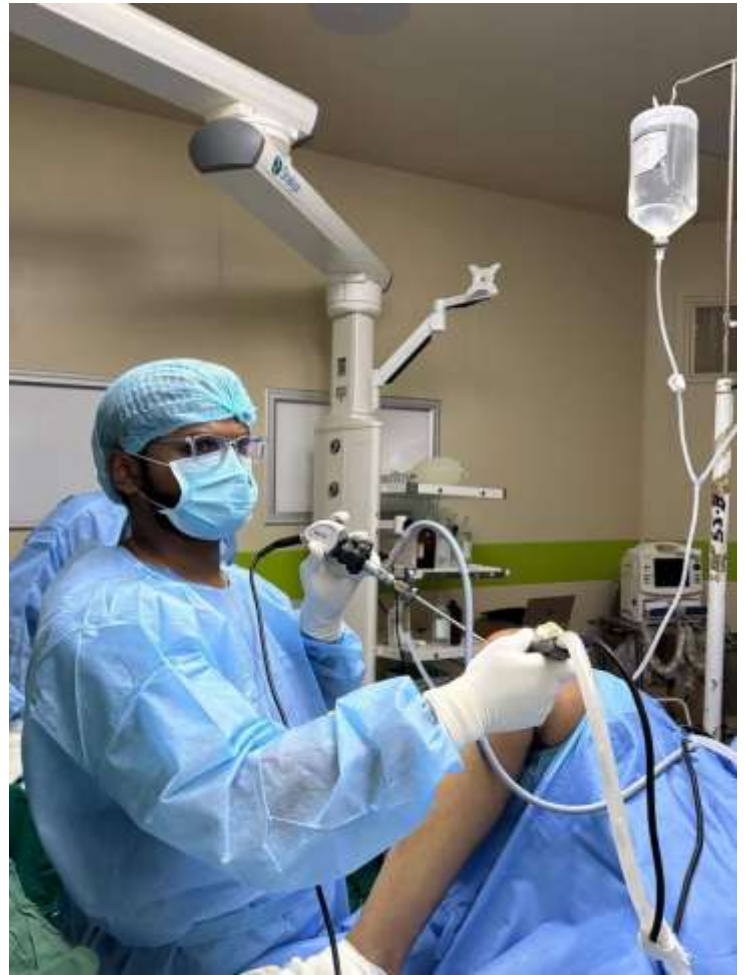
The most common Arthroscopic procedures include Sports injuries, repairing cartilage and meniscal problems of the knee, reconstructing the ligaments in the knee and stabilizing the joint, and repairing Rotator Cuff tears in the shoulder.

SHOULDER SCOPY



(fig - shoulder arthroscopy done by residents with arthroscopic instruments set)

KNEE ARTHROSCOPY



(Intraoperative shoot of reconstructed anterior cruciate

ligament by arthroscopic repair with instrument set for
arthroscopic anterior cruciate ligament repair)

iv. Paediatric

Orthopedic: Congenital and Acquired Deformities

(club foot day celebrated to empower patients with the disease and spread awareness about the condition)



(Intraoperative photographs of CTEV [clubfoot] correction surgery)

SUCCESSFUL PAEDIATRIC ORTHOPAEDIC SURGERIES IN 2026

Post-operative radiographs of paediatric fracture cases managed by the Department

Case 1: Perthes Disease – Proximal Femoral (Varus Derotation) Osteotomy with Plate Fixation



Case 2: Paediatric hand/metacarpal fracture – K-wire fixation



Case 3: Paediatric distal radius fracture – crossed K-wire fixation

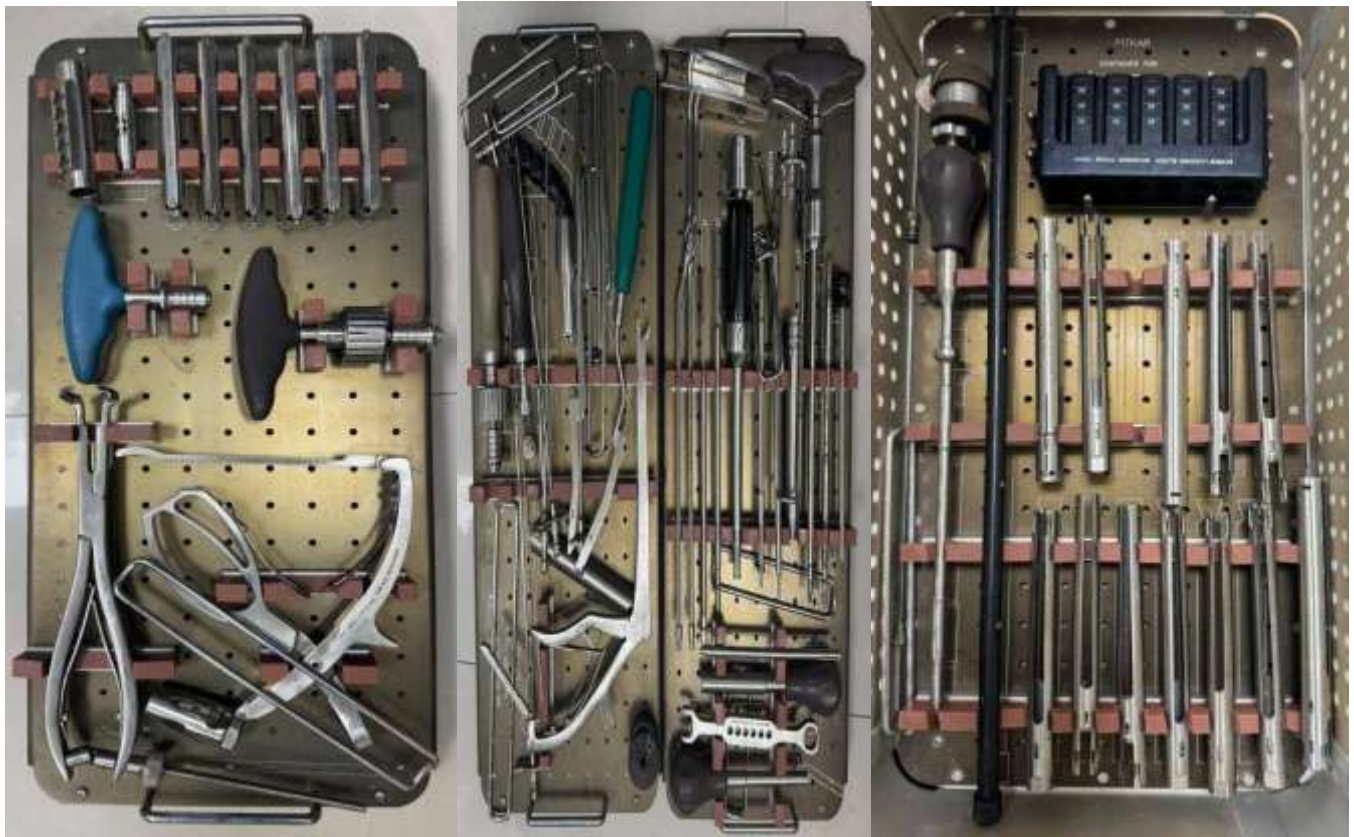


Case 4: Paediatric tibia-fibula fracture – conservative management

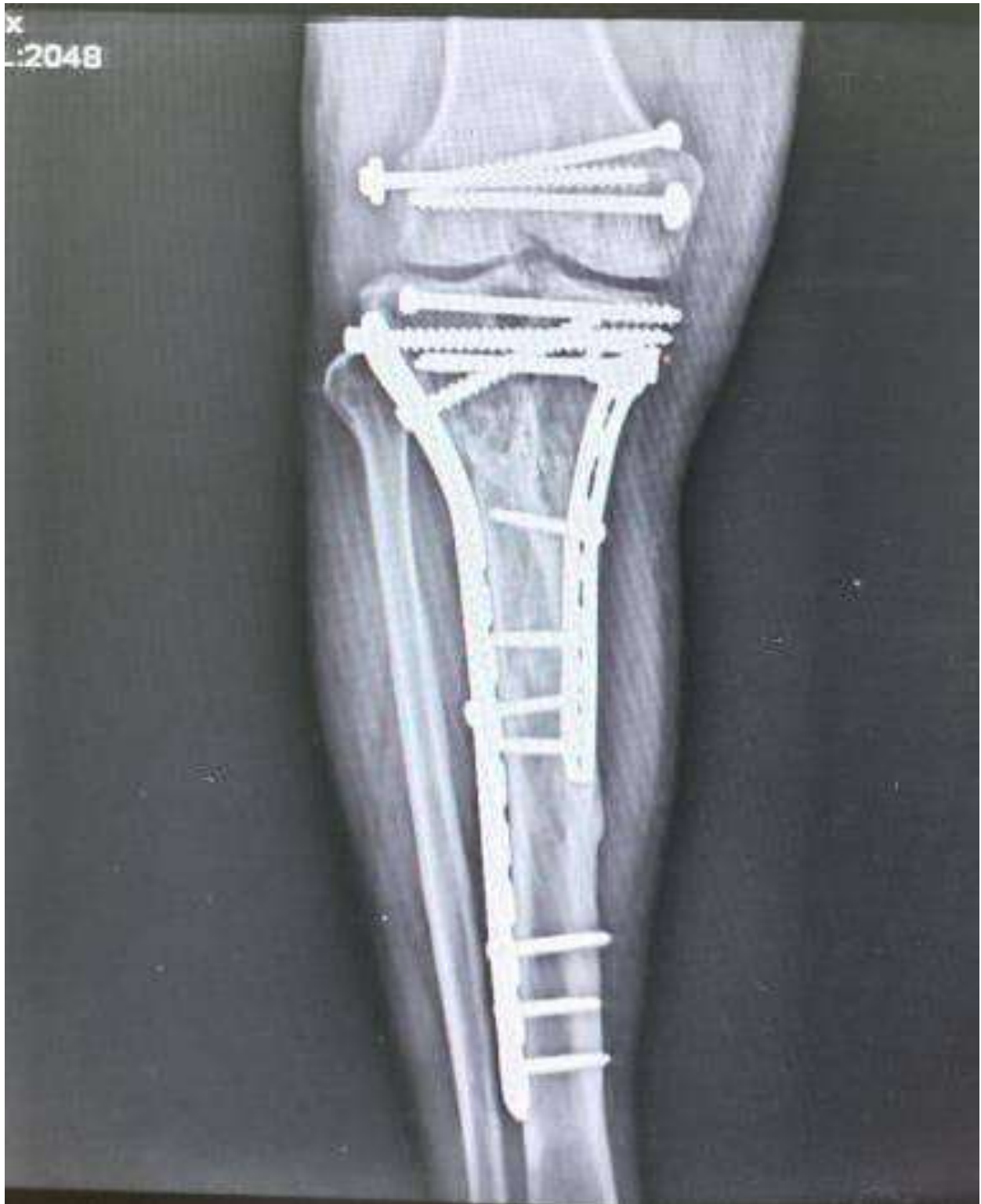


- v. **Trauma:** Long bones of Upper and Lower limbs, Spine & Pelvi-Acetabular Fractures, limb Salvage following Major Trauma with Vascular Surgeons.

High quality Swiss 'AO' systems help stabilize fracture with many Image intensifiers to confirm the perfect fracture fixation.



(Fig- pelvic-acetabular operations post-operative X-RAY and instrument set)



(Fig-Proximal tibia fracture managed with Bi-columnar plating -post-operative X-RAY)



(FIG-Proximal humerus fracture managed with plating--post-operative X-RAY)



(Fig-Distal femur fracture managed with plating--post-operative X-RAY

(Fig - AO trauma instrument set)







(Fig- distal end radius bone tumour pre and post operative radiograph)

- v. **Orthopedic Oncology:** Tumour excision with reconstruction for benign tumour's and limb salvage surgeries are done for Malignant tumours at this center thus offering a great help to the needy in this region.



(Fig-Intraoperative and postoperative X-rays of distal third radius shaft osteochondroma)



(Fig- Pre operative clinical photo of right peroneal nerve sheath tumour)
sheath tumour)



(Fig- Intra-op excision of nerve
sheath tumour)



(Fig- Pre operative x-ray of distal fibular osteochondroma)



(Fig- Post excision x-ray of distal fibular osteochondroma)

vi. **Deformity correction surgery:** Deformity correction along with cosmetic surgeries for various pathology being performed at this center thus offering a great help to the needy in this region.



(FIG-Pre and post operative correction of Charcot joint)



(FIG- intra operative and post operative x-ray photograph of ILIZAROW technique)