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Title: GRAFT AUGMENTED OSTEOSYNTHESIS OF PROXIMAL HUMERUS FRACTURES IN OSTEOPOROTIC PATIENTS

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Faculty Disclosure Information

- Disclosures: I have no financial conflicts to disclose



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Introduction

- Fractures of the proximal humerus represent approximately 4% of all fractures and 26% of humerus fractures.
- A locking plate is currently the most widely used method for fixation of these fractures in both young and elderly patients.
- The use of Locking plate along with intramedullary autograft is an established technique for these fractures in osteoporotic patients.
- Need For this study : There are minimal studies regarding the Functional and radiological outcome of proximal humerus fractures with graft in osteoporotic patients



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TYPE OF STUDY

The study is a clinical, prospective and observational study conducted at KR HOSPITAL MMC&RI , MYSORE on 20 patients who are osteoporotic with proximal humerus Fractures.

Materials and methods

In the period between June 2019 to May 2021 , 20 patients underwent Graft Augmented Osteosynthesis Of Proximal Humerus Fractures In Osteoporotic Patients after informed consent.

Inclusion Criteria

- Age >45yrs
- T score < -1.0 osteopenia or osteoporosis(DXA Bone densitometry)
- Patients undergoing revision surgery for failure of other implants.
- Gustilo Anderson Type 1 Open fractures



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Exclusion Criteria

- Pathologic fractures from primary or metastatic tumours
- Patients age less than 45 years.
- Gustilo Anderson Type 2 & 3
- Polytrauma (Head injury-SDH,EDH,SAH, Chest injury, Abdominal trauma, Vascular injuries)
- Failure of conservative treatment
- A fracture with associated dislocation or neurovascular injury

Study

- 20 Patients who underwent Graft Augmented Osteosynthesis Of Proximal Humerus Fractures In Osteoporotic Patients had Radiological and Functional followup for 6months
- Follow up Xrays done with 15 deg External Rotation Of Arm with Neck Shaft Angle Measurement with Xray PACS System.
- Outcomes accessed by
VISUAL ANALOGUE SCORE (VAS) for pain
CONSTANT AND MURLEY SCORING SYSTEM
NECK SHAFT ANGLE in Xray



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Surgical and Radiological Images

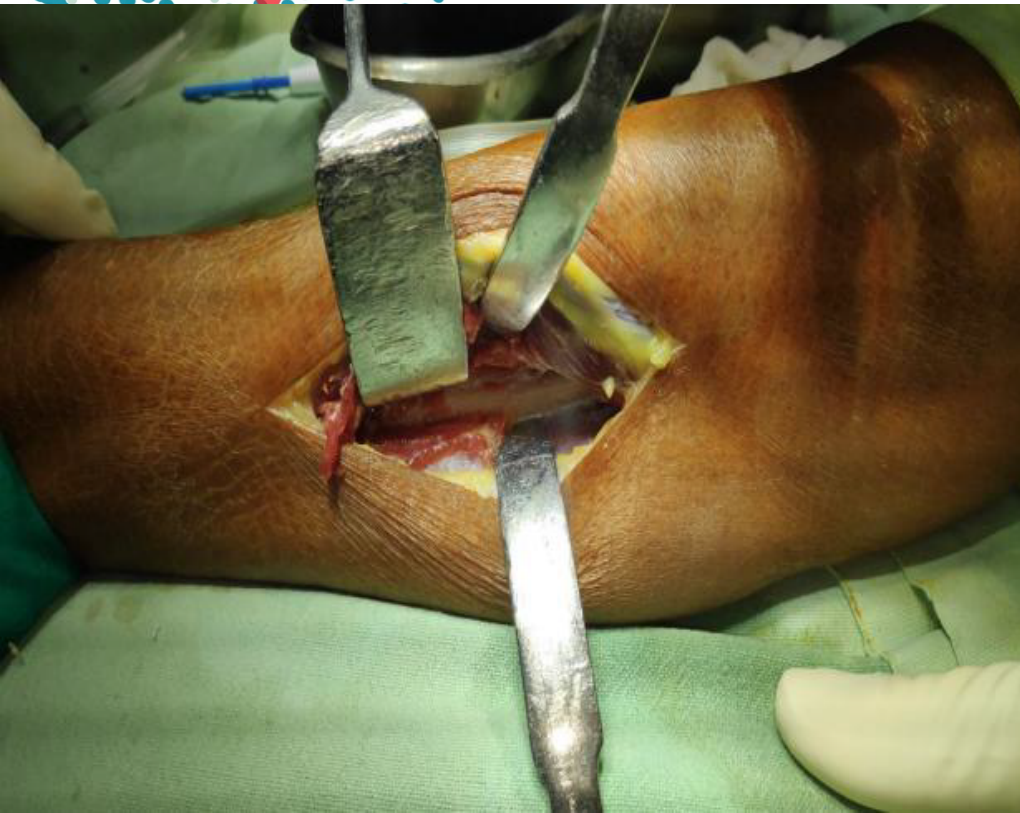


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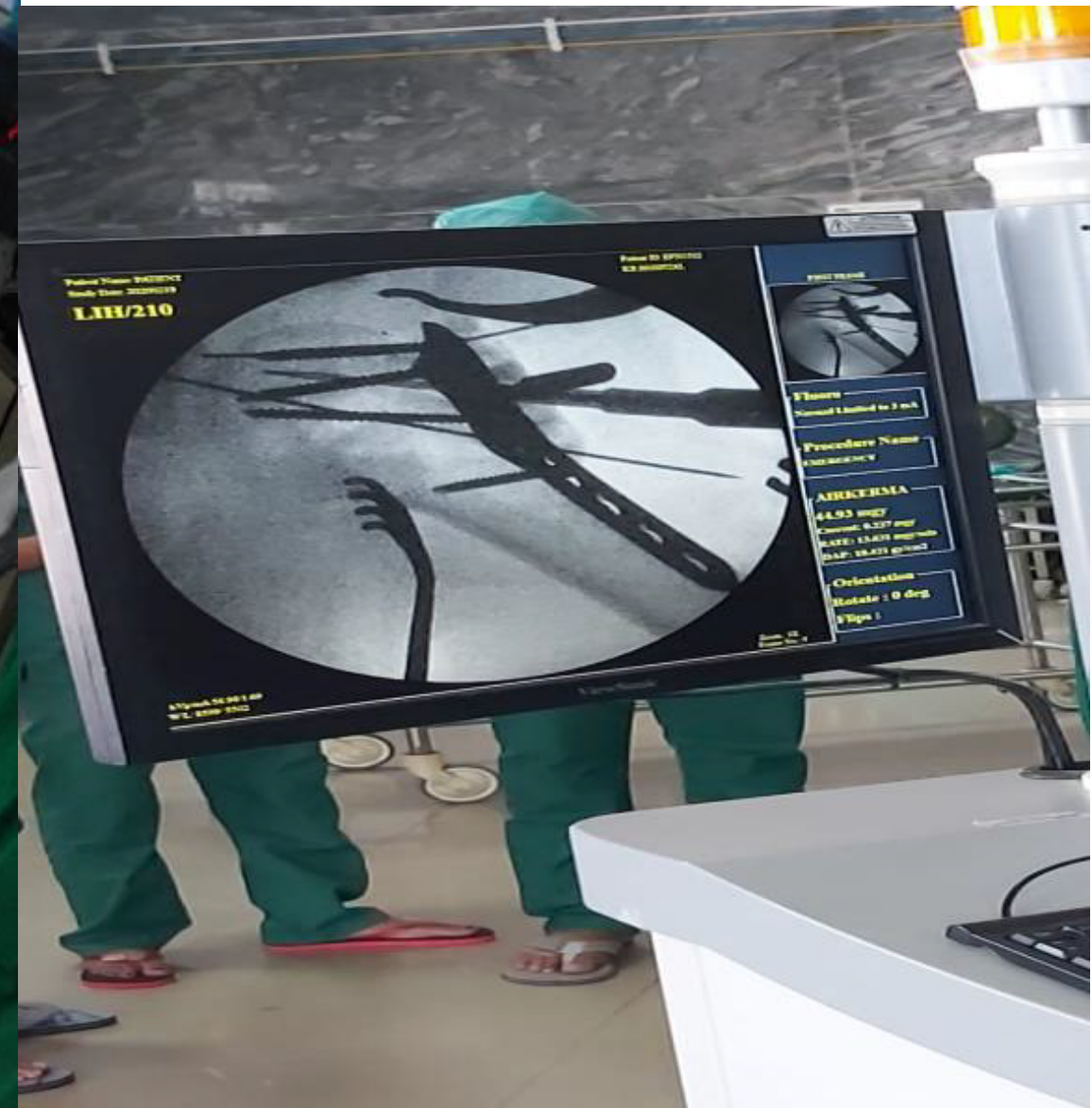


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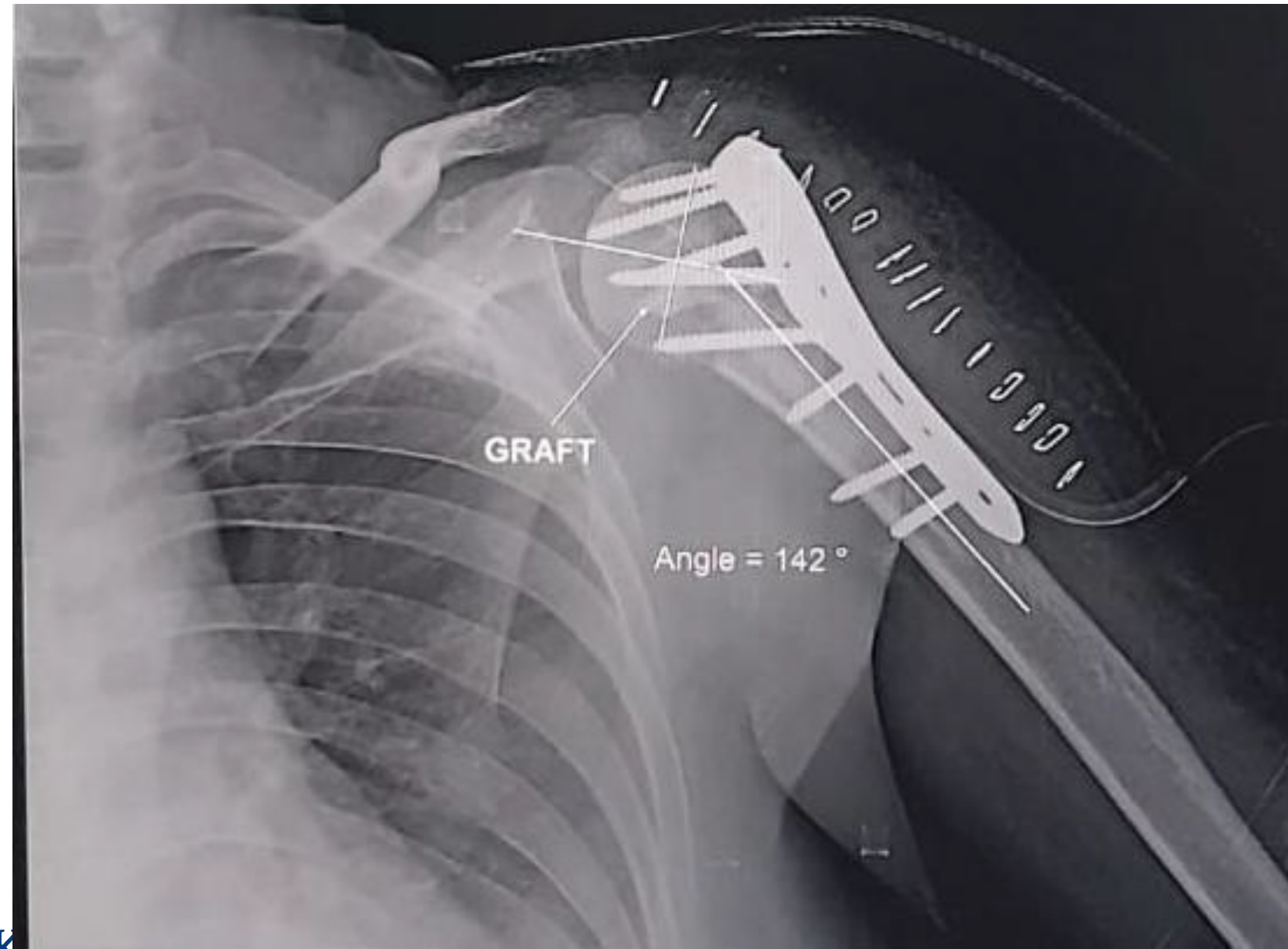


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Our Study Image

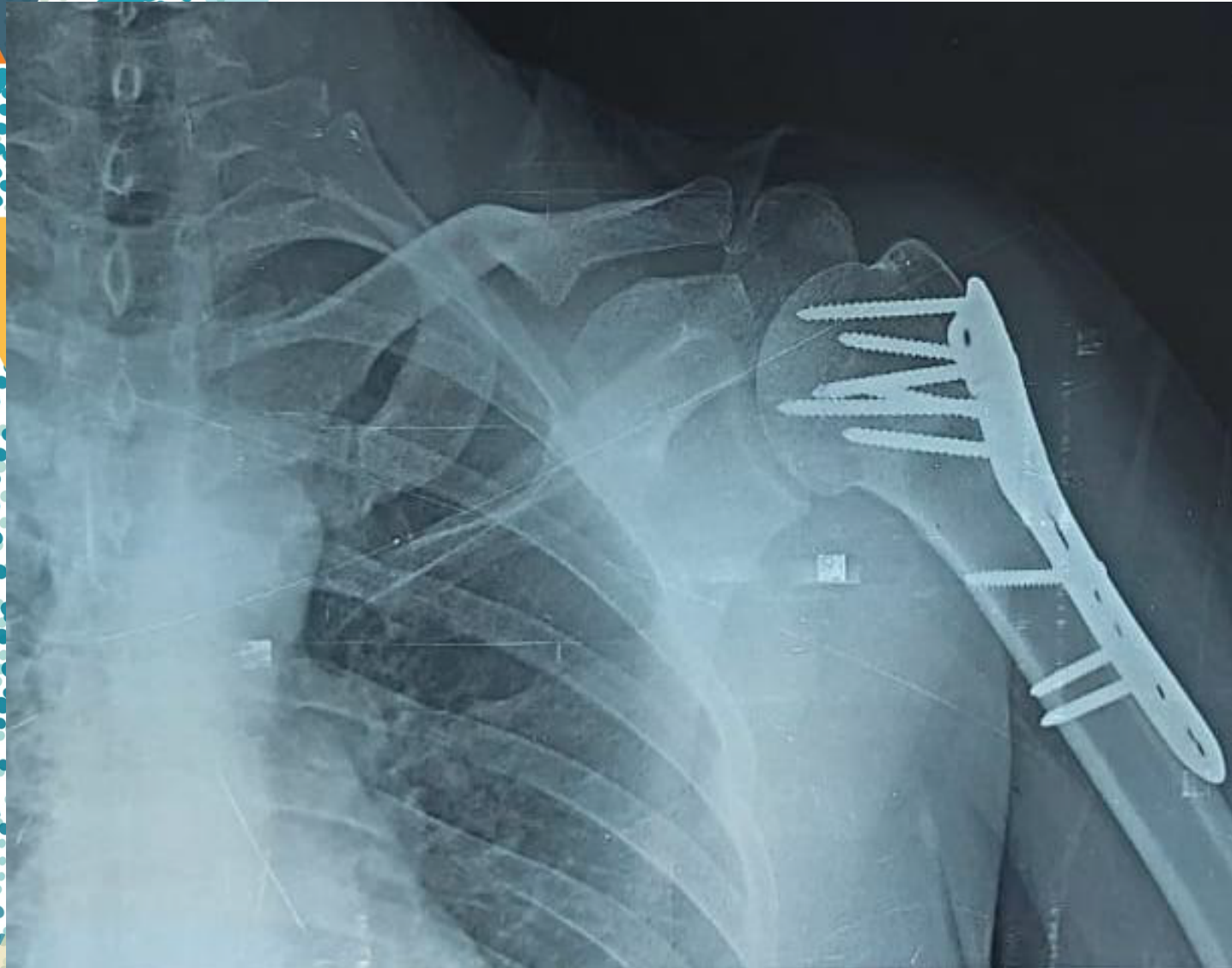


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Outcome Images



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TABLE OF DATA, AND FUNCTIONAL OUTCOMES OF PARTICIPANTS

OUTCOMES	PATIENTS (n=20)
Mean VAS (sd)	2.2
Mean constant Score(sd)	90.1
Mean ROM (sd) deg	
Forward elevation	148
Extension	49.1
External Rotation	78.6
Internal Rotation	72.5
Abduction	151.2
Adduction	47.6
Mean Difference of NSA deg	1

References

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