

**CONGRESSO NAZIONALE
SOCIETÀ ITALIANA
FISSAZIONE ESTERNA**

Fissazione esterna nel
trattamento delle emergenze
e traumi militari, tecniche
di ricostruzione degli arti
e trattamento degli esiti
postraumatici

2025

ROMA

16-17 MAGGIO 2025

LENGTHENING OF THE HUMERUS WITH ILIZAROV METHOD: A RETROSPECTIVE STUDY

Malagoli E, Vandenbulcke F, Kirienko A

Disclosures

None of authors do have a financial interest, any other relationships with a commercial company or a conflict of interest related directly or indirectly to this research.

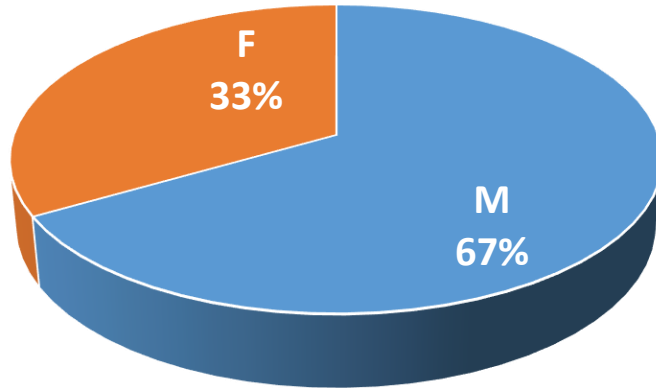
LENGTHENING OF THE HUMERUS WITH ILIZAROV METHOD: A RETROSPECTIVE STUDY

12 patients undergone lengthening of the humerus with Ilizarov method
between January 2006 and December 2022

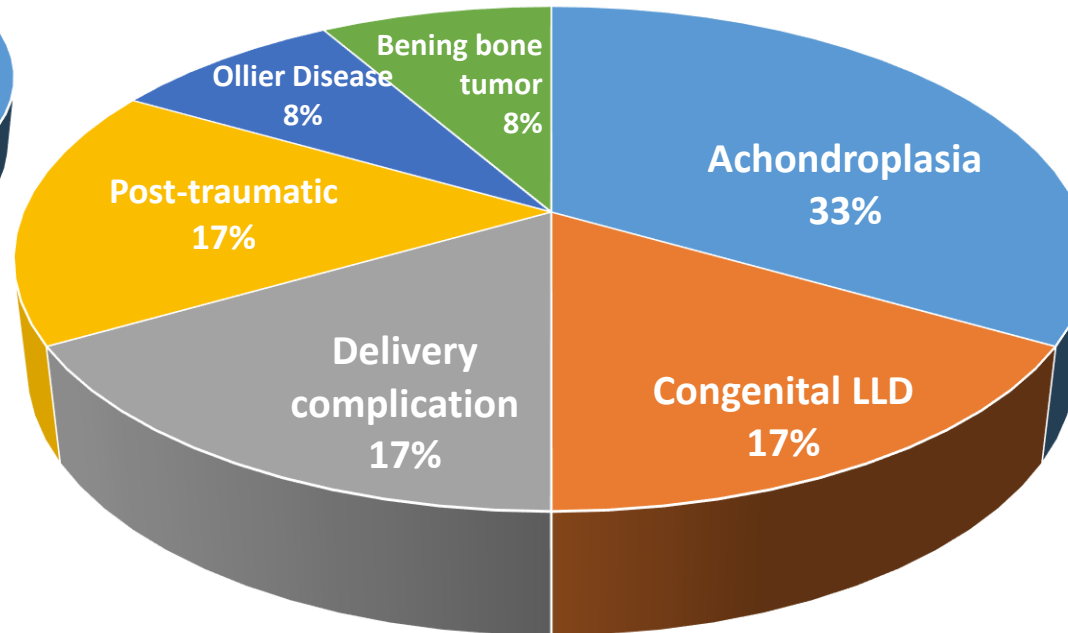
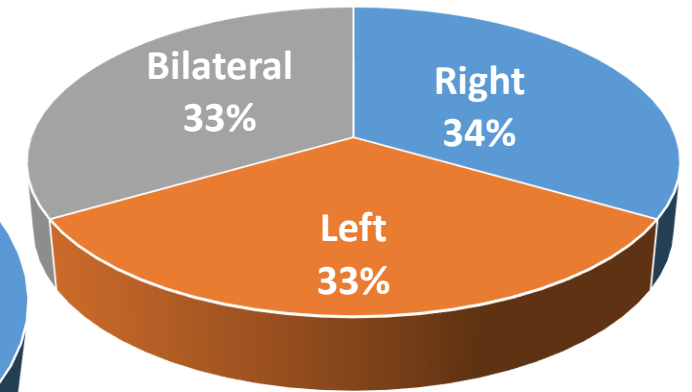
COHORT DEMOGRAPHICS

Mean age at surgery = **17.9 years**

Sex distribution



Affected side distribution



Etiology distribution

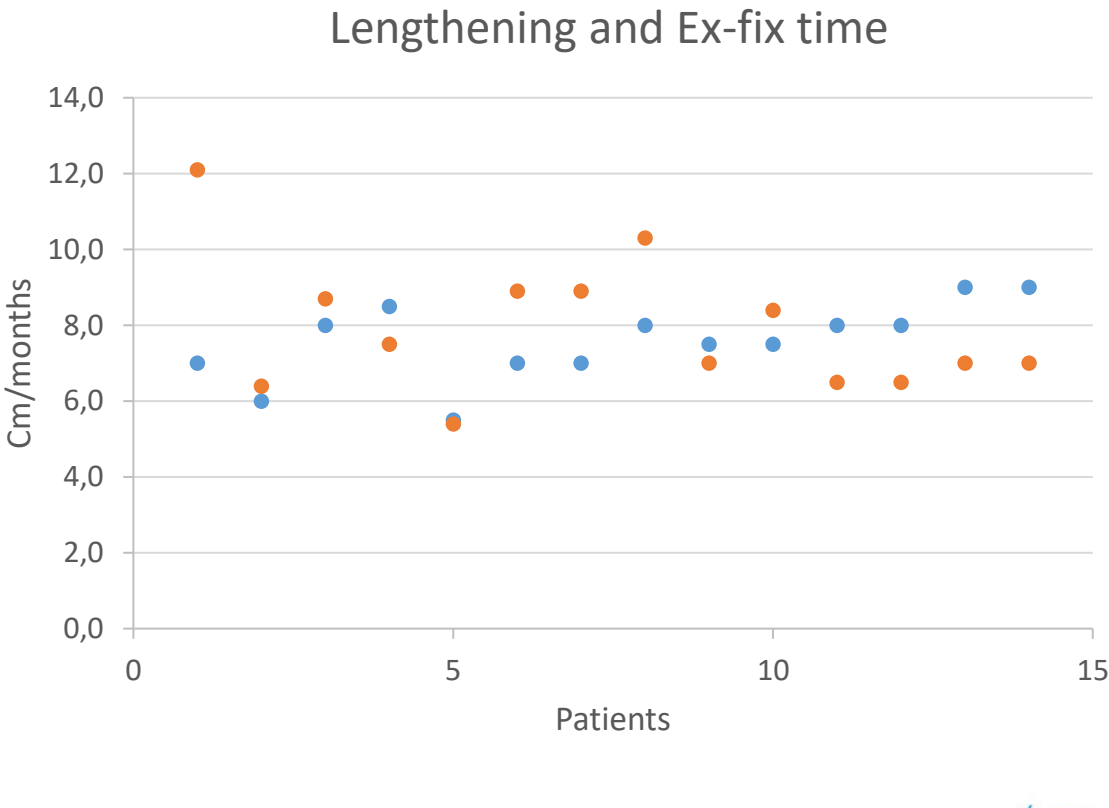
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LENGTHENING OF THE HUMERUS WITH ILIZAROV METHOD: A RETROSPECTIVE STUDY

RESULTS

16 humeral lengthening procedures
performed in 12 patients (4 bilateral) were reviewed

	Mean (range)
Lengthening (cm)	7,6 (5,5-9,0)
External fixation time (EFT)	8,0 (5,4-12,1)
External fixation index (EFI)	1,1 (0,8-1,7)



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FOLLOW-UP AND COMPLICATIONS

Mean follow-up was 6.3 years

COMPLICATIONS:

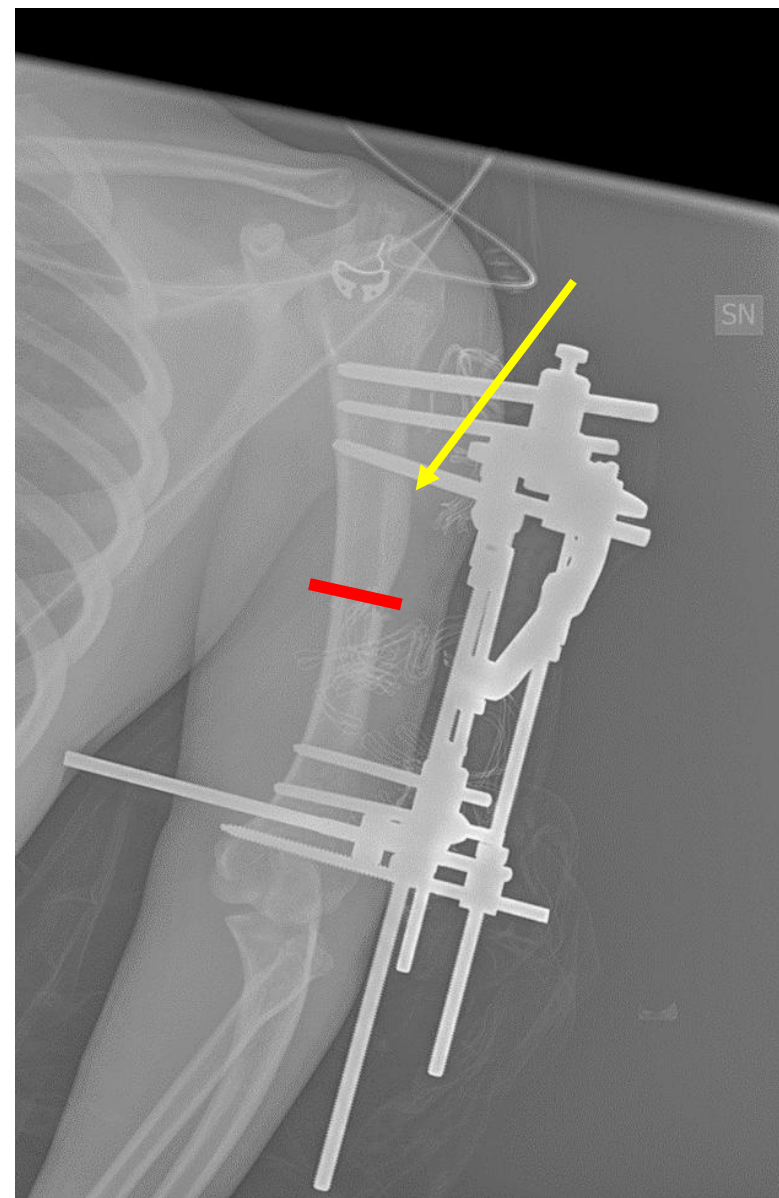
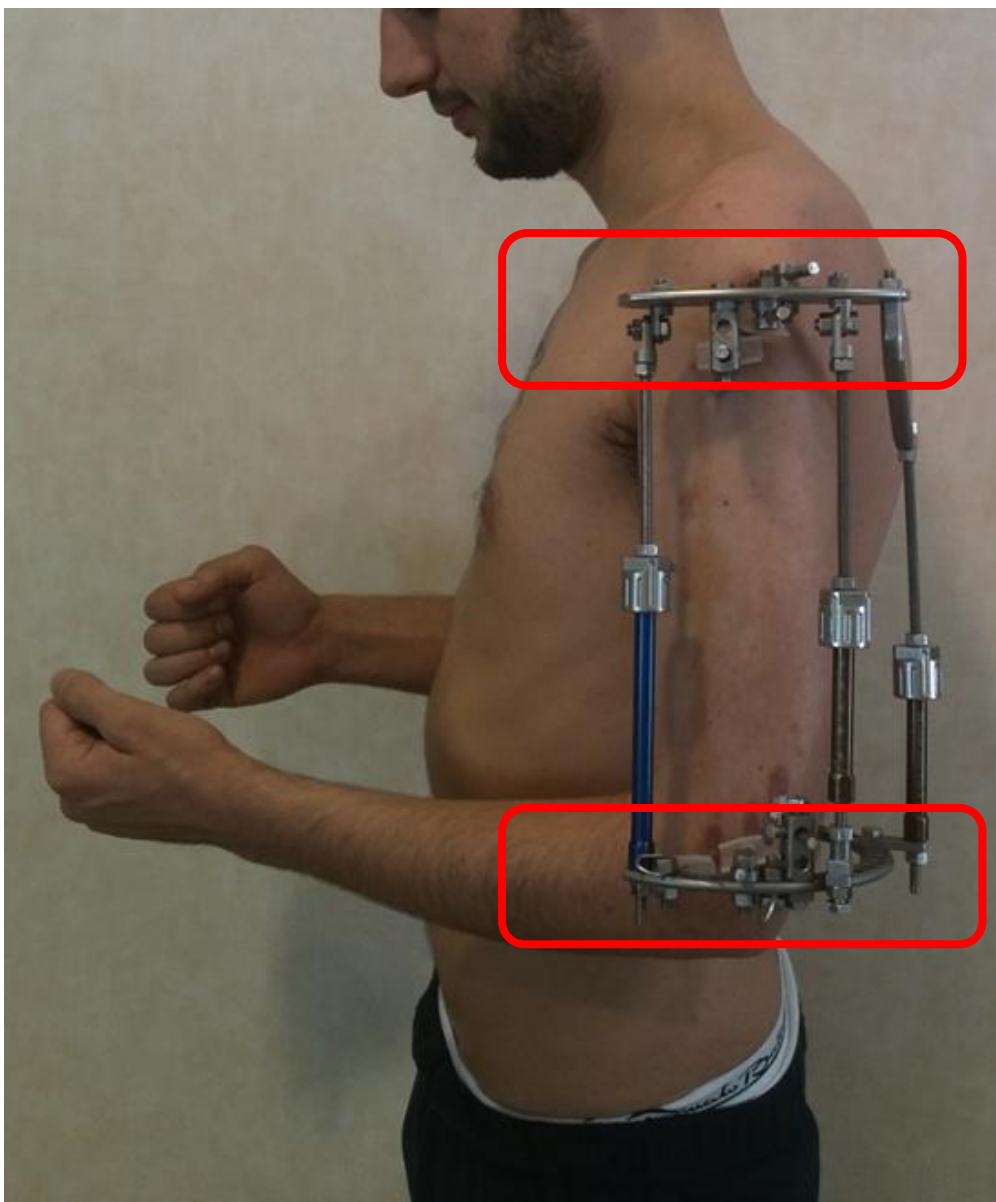
- One case of early consolidation
→ Revision surgery for osteotomy (50 days from surgery)
- One case of fracture (12 days after frame removal)
→ Reintervention for new fixation

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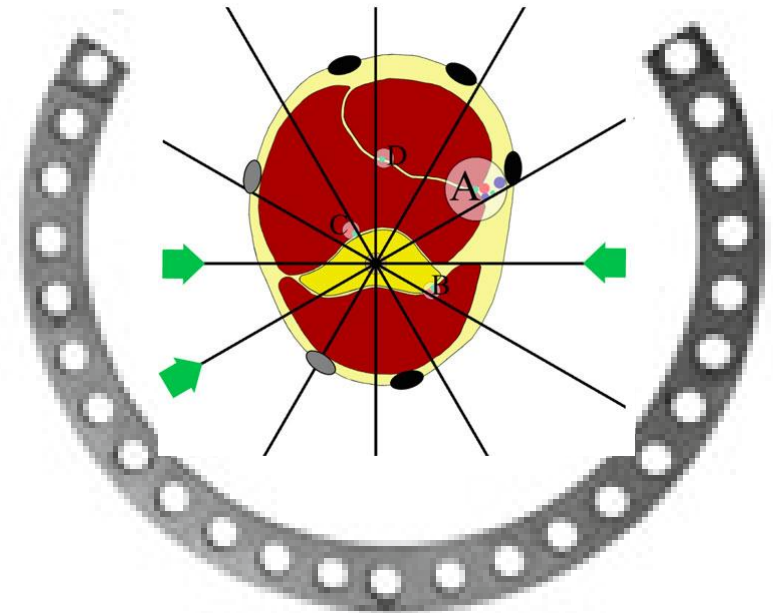
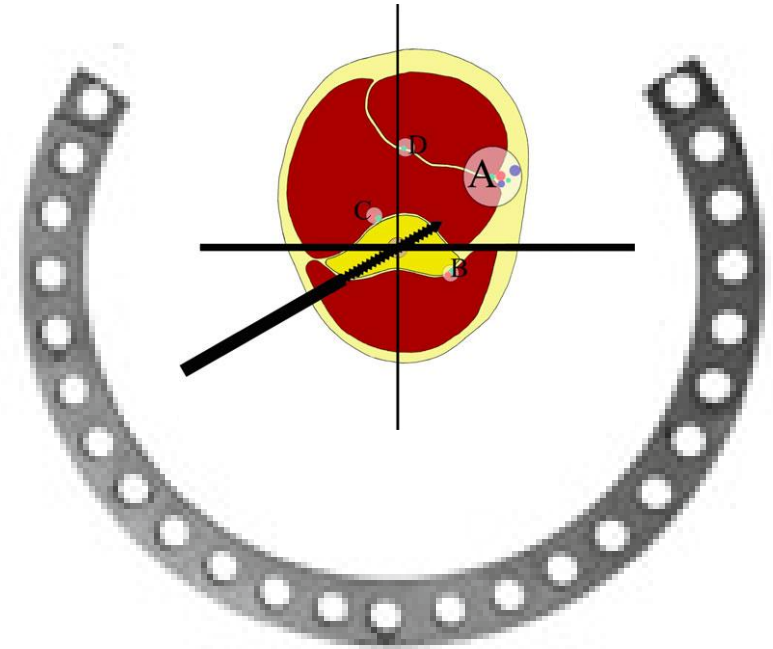
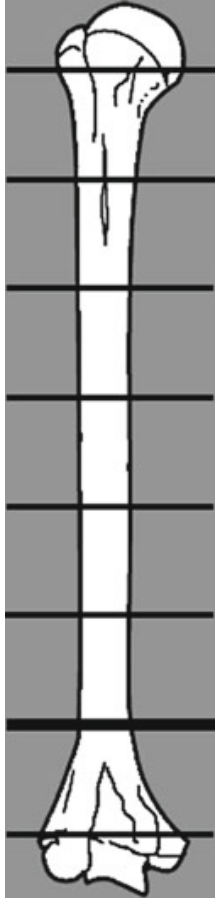


WHY HUMERUS LENGTHENING?

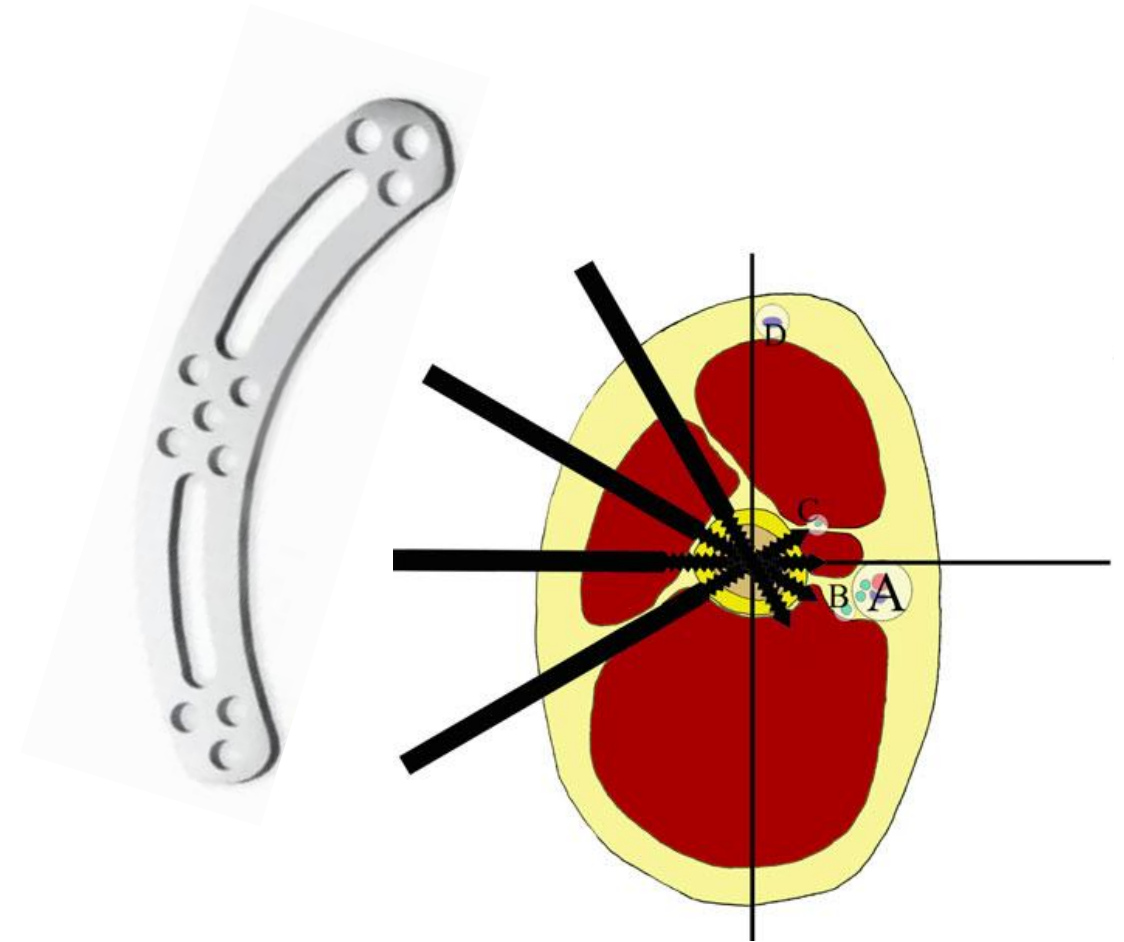
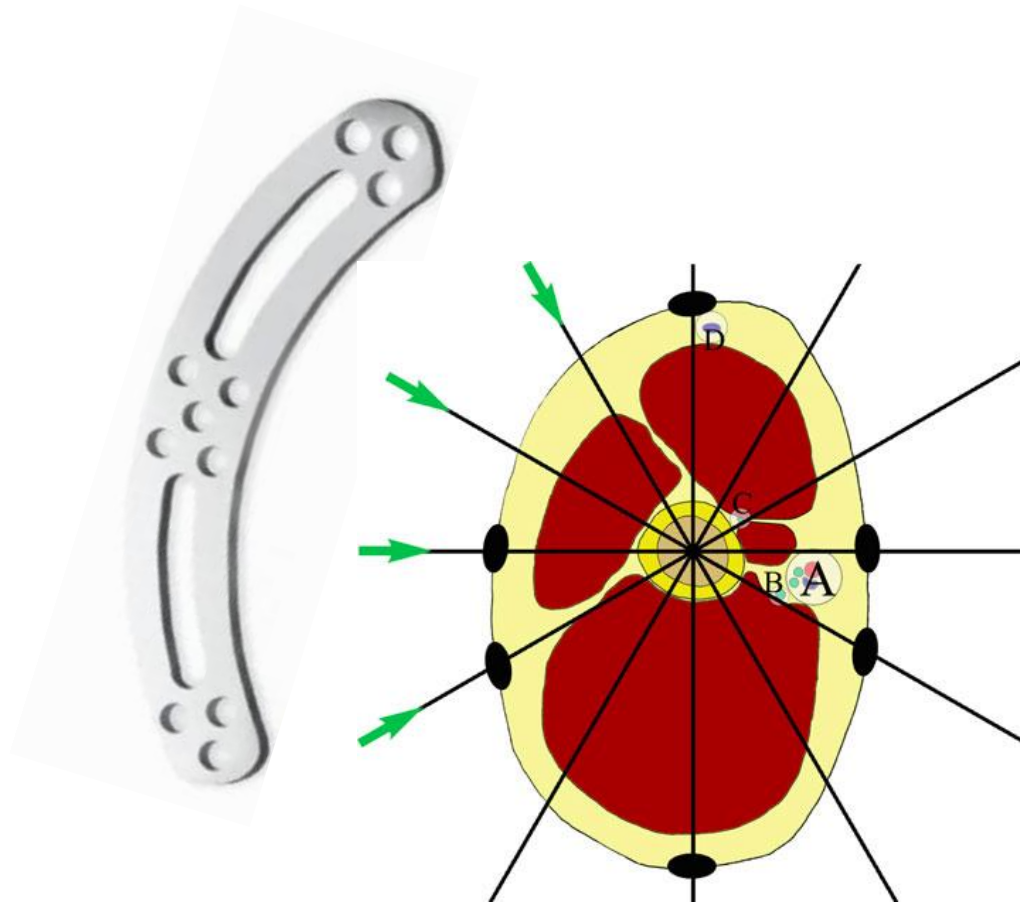
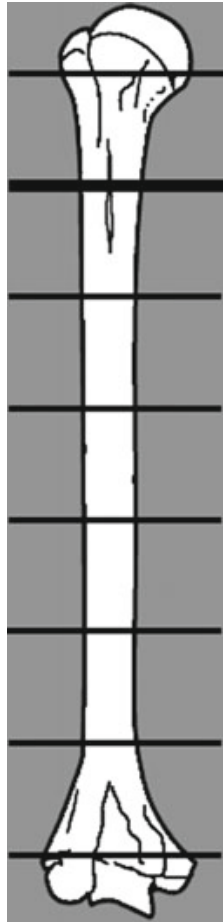




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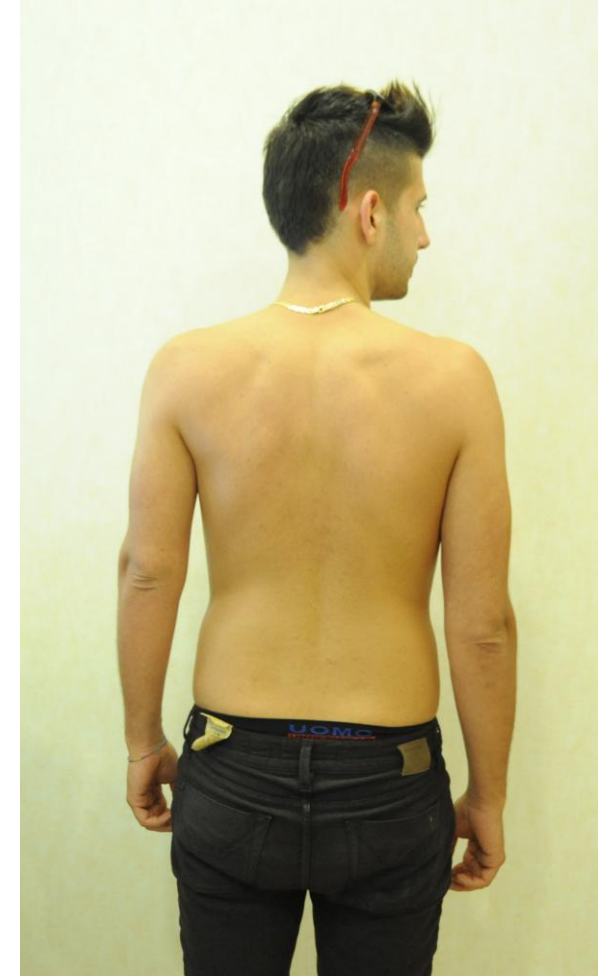
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A case of proximal humerus aneurysmal bone cyst

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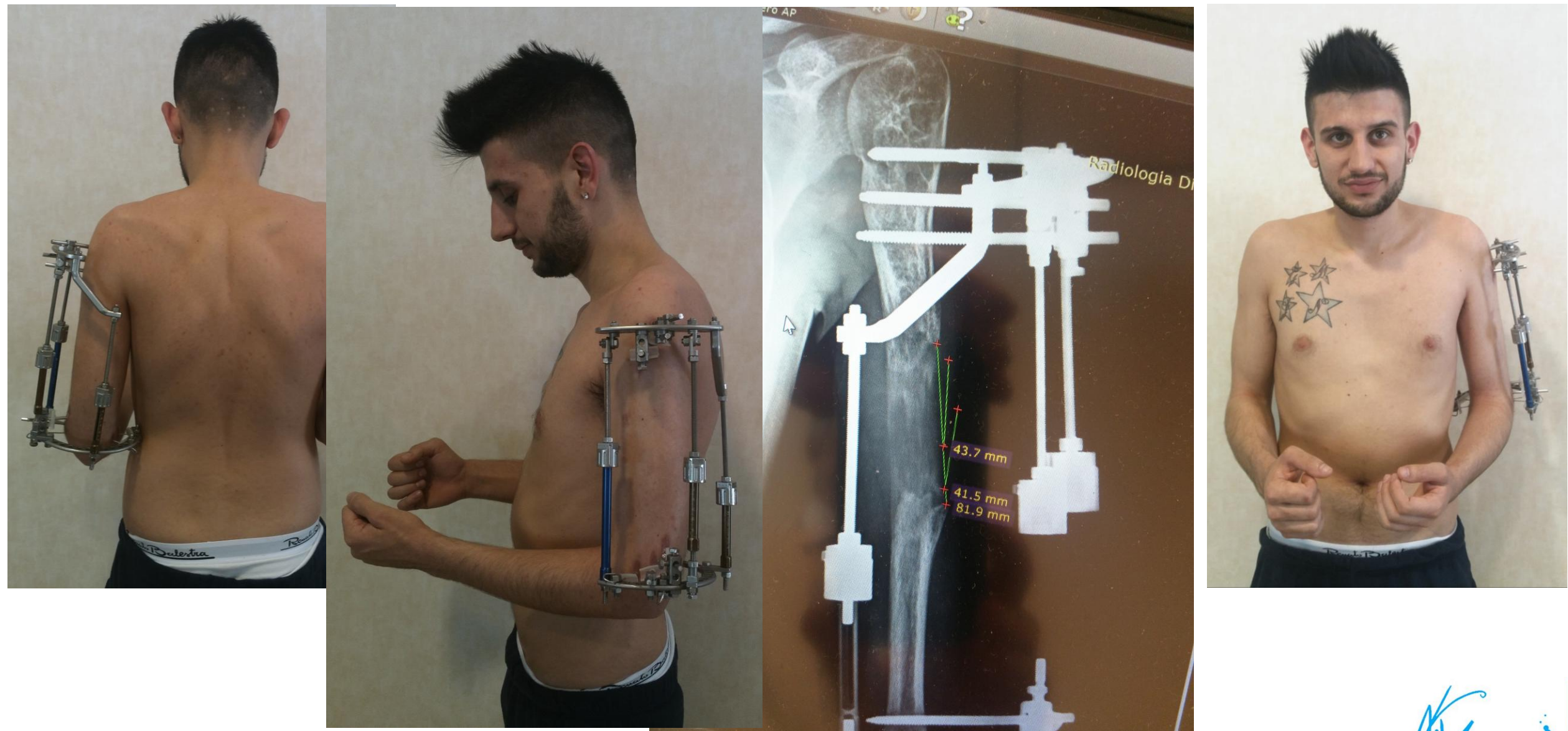


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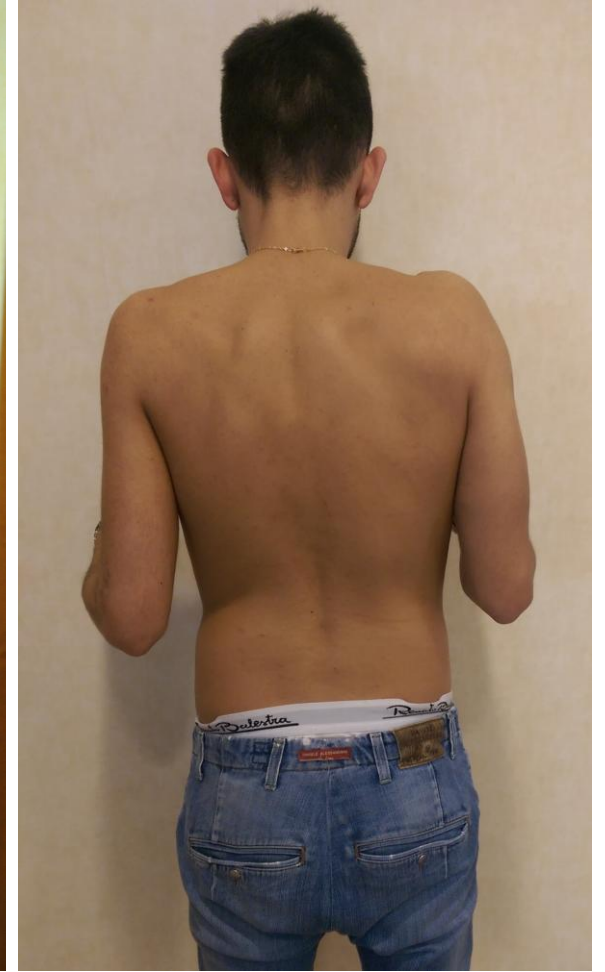
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A case of post-traumatic shortening and deformity

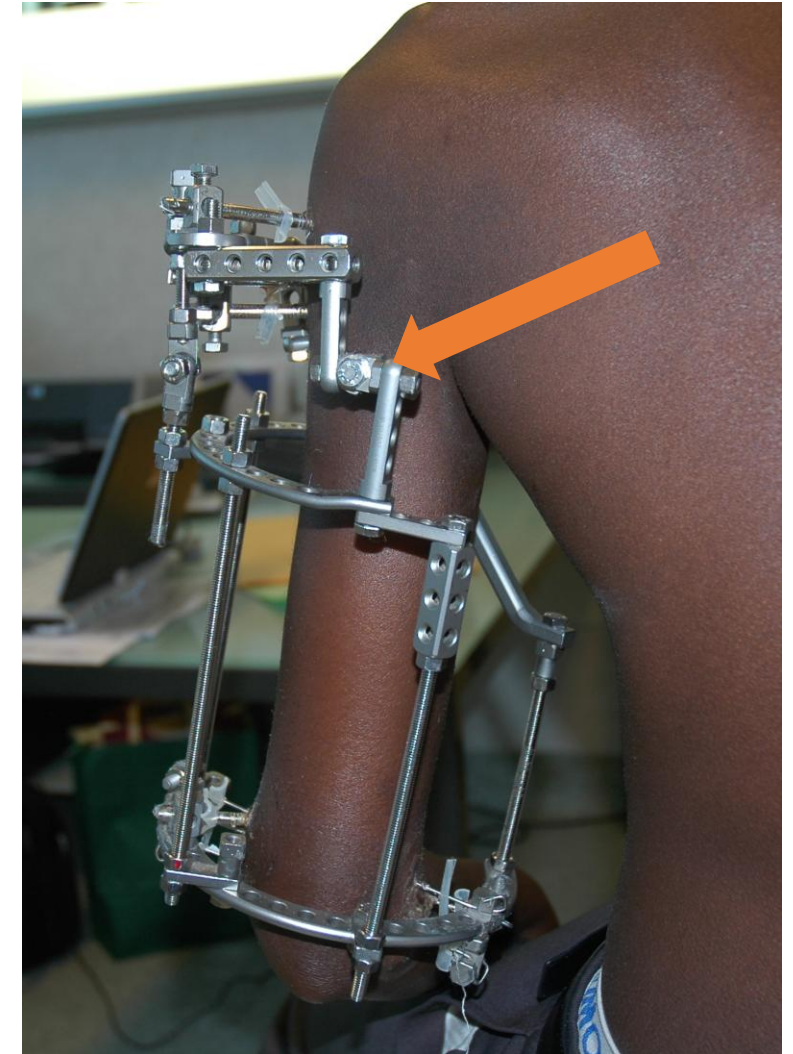
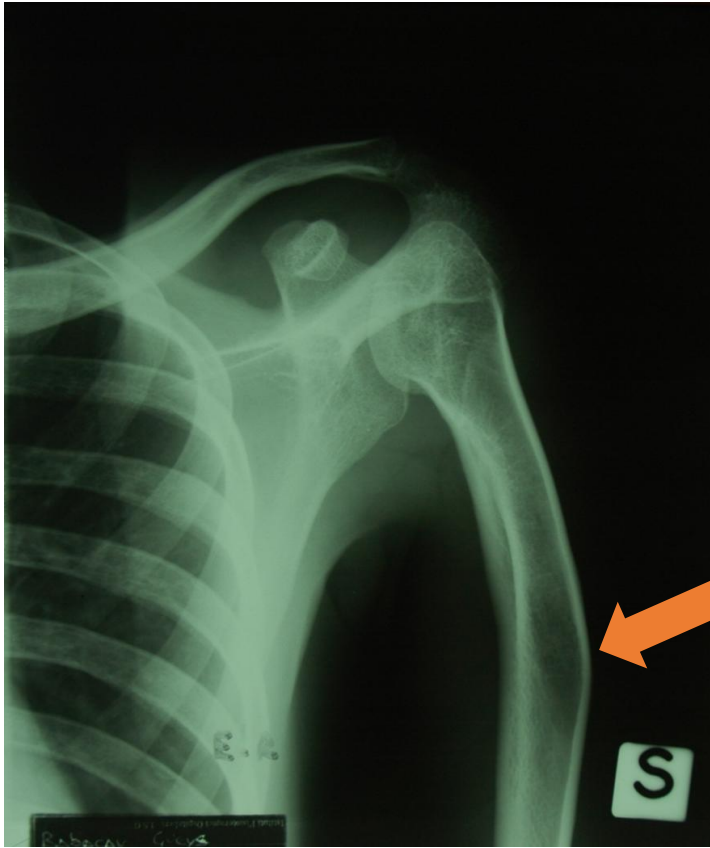
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CASE 1



LENGTHENING OF THE HUMERUS WITH ILIZAROV METHOD: A RETROSPECTIVE STUDY

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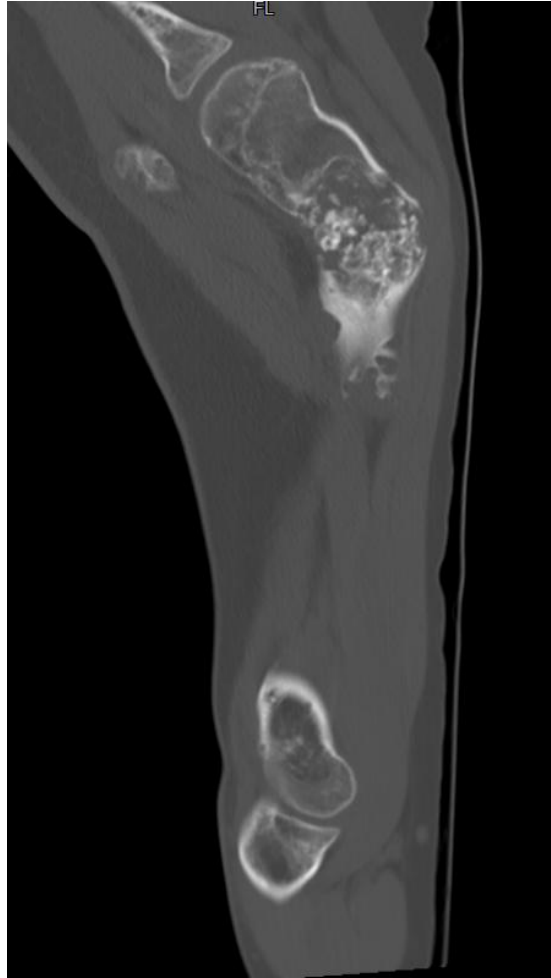


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A case of Ollier disease

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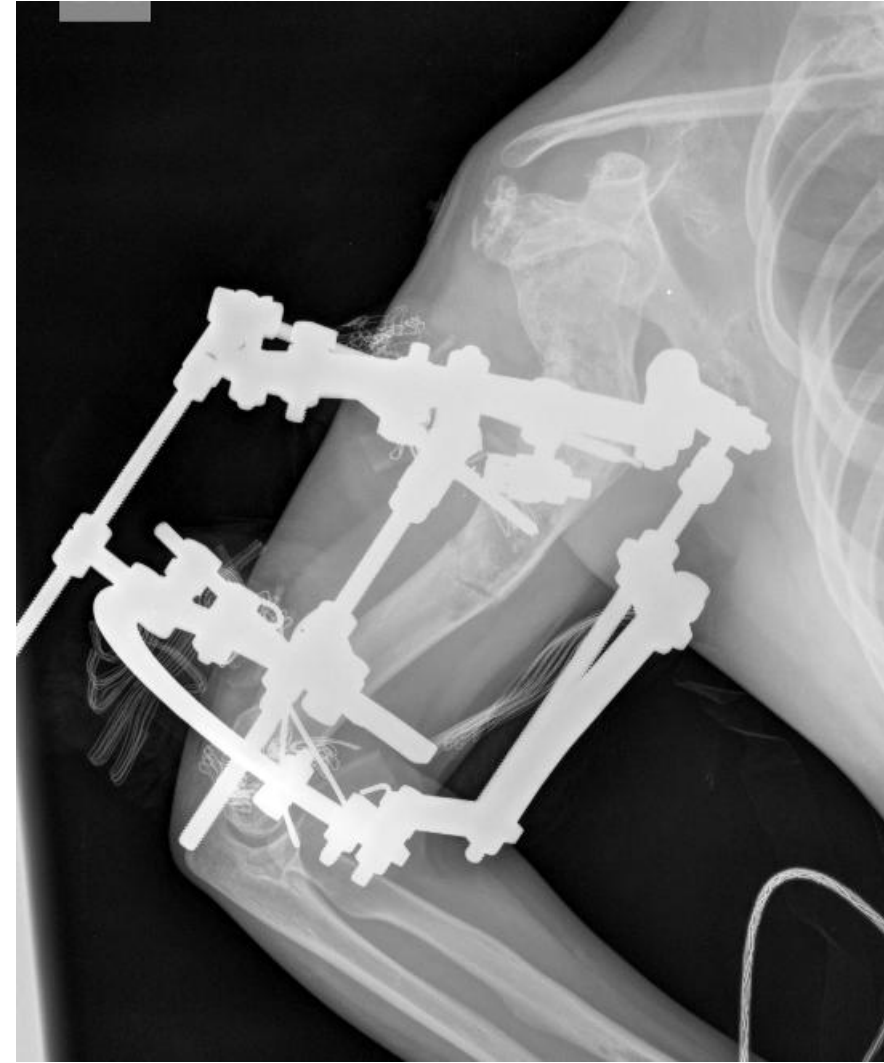
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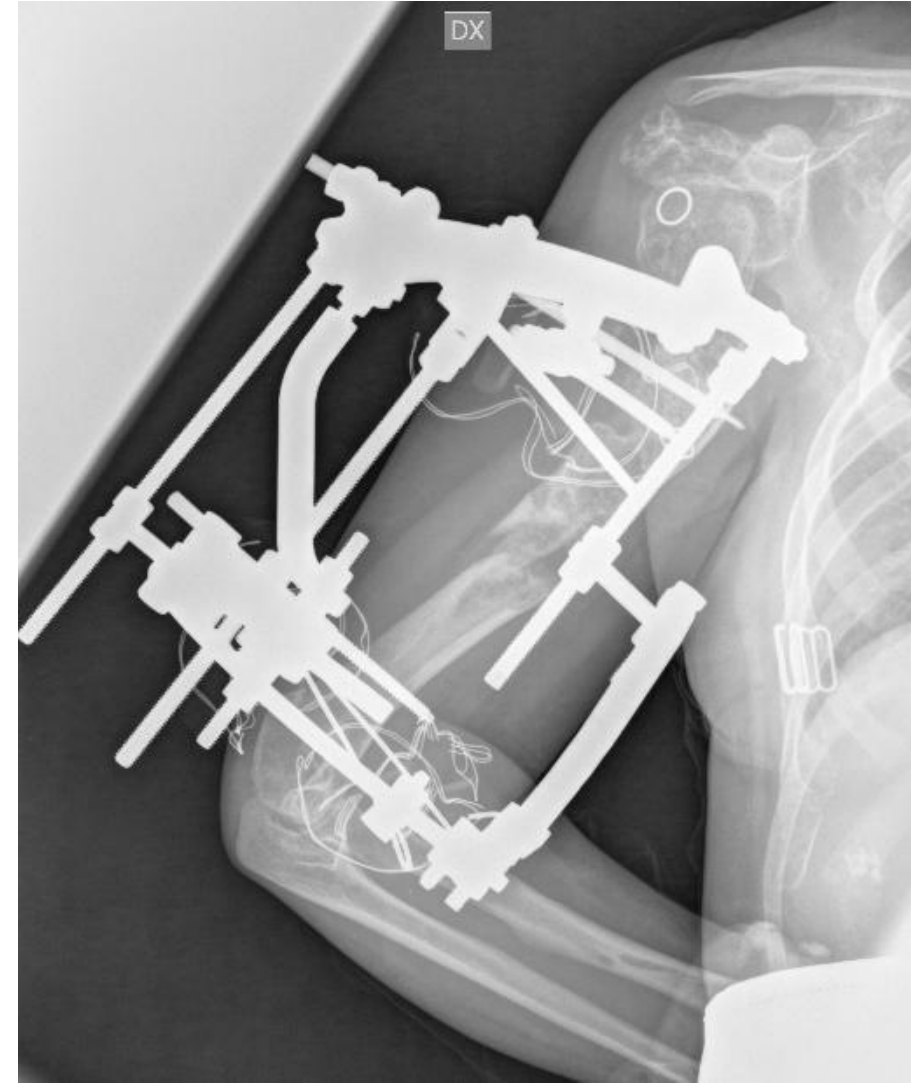
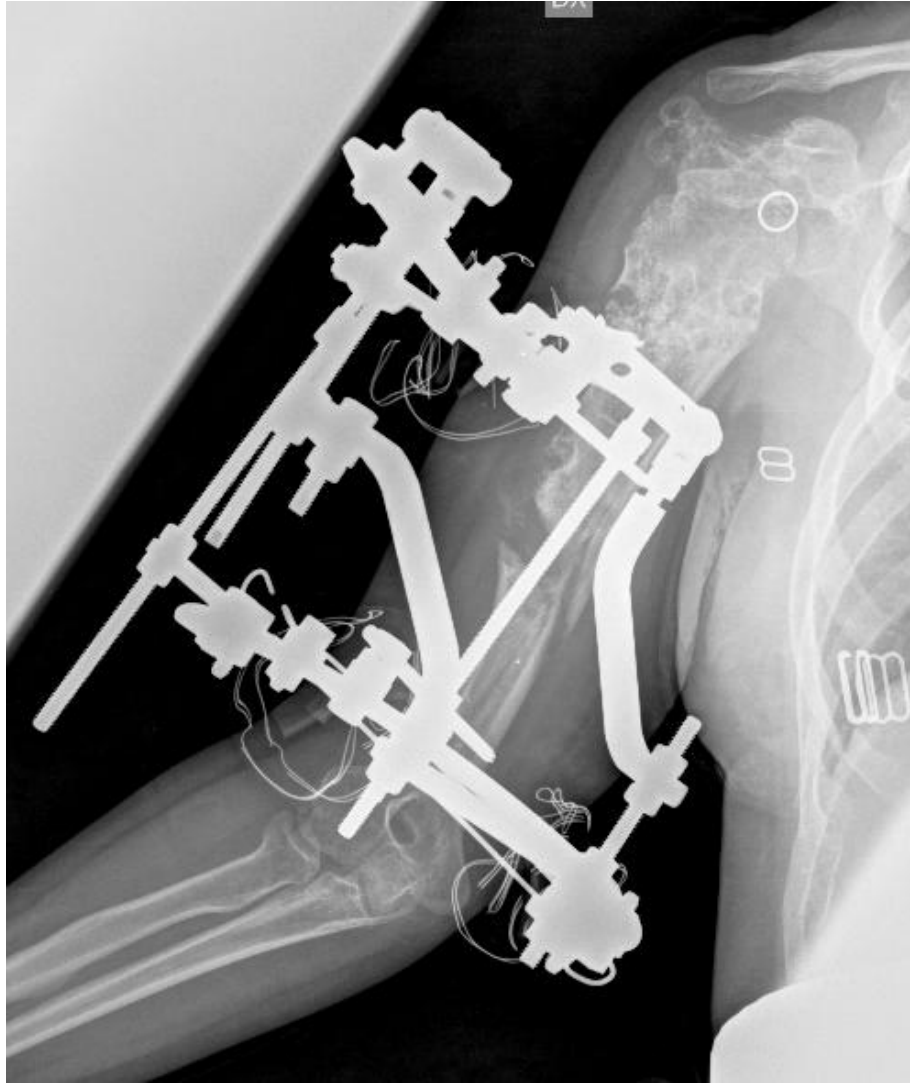
Complex deformity and shortening

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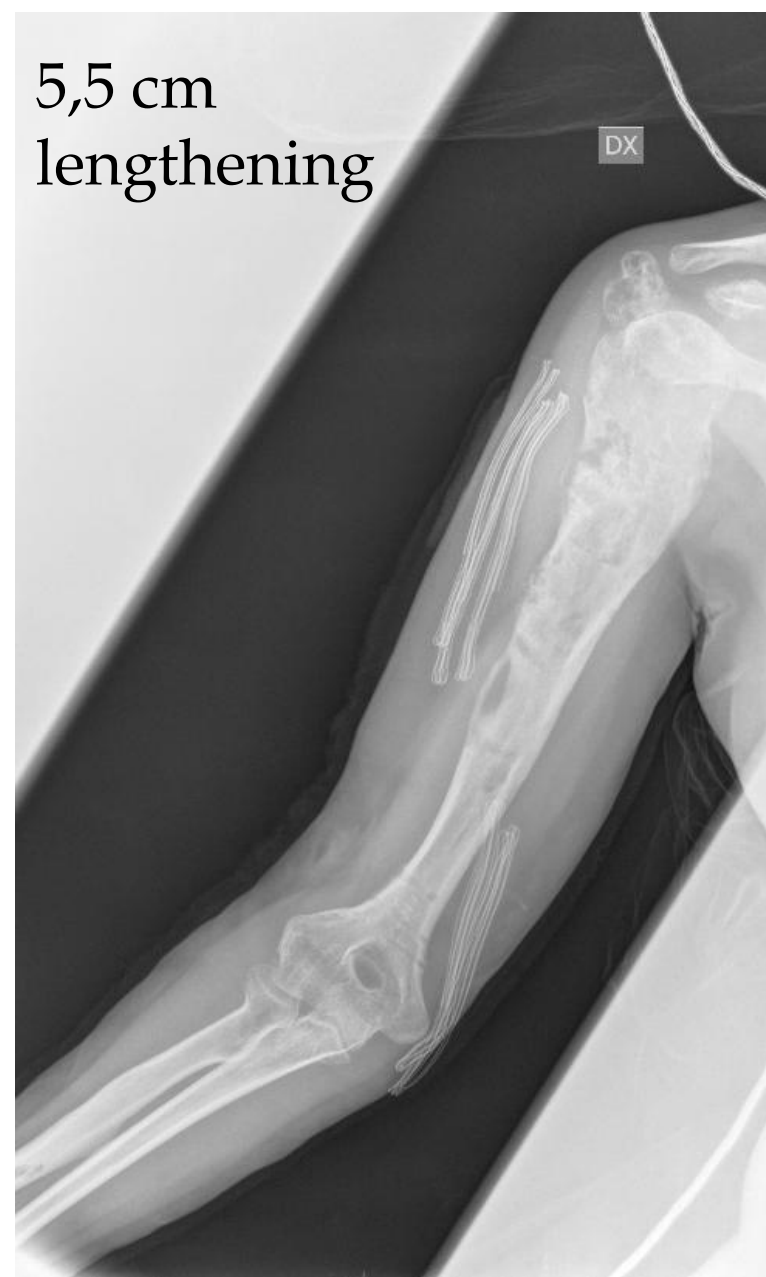
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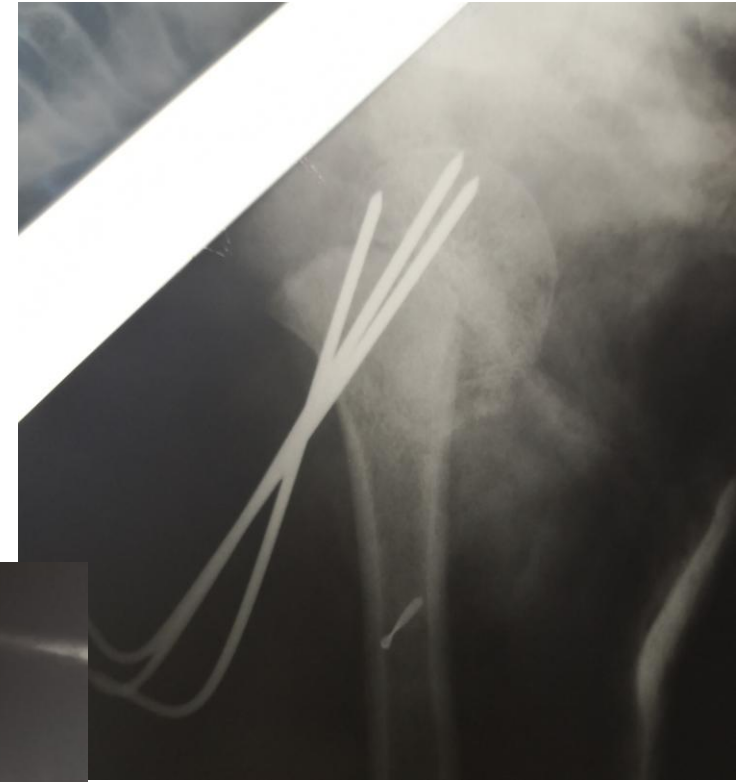
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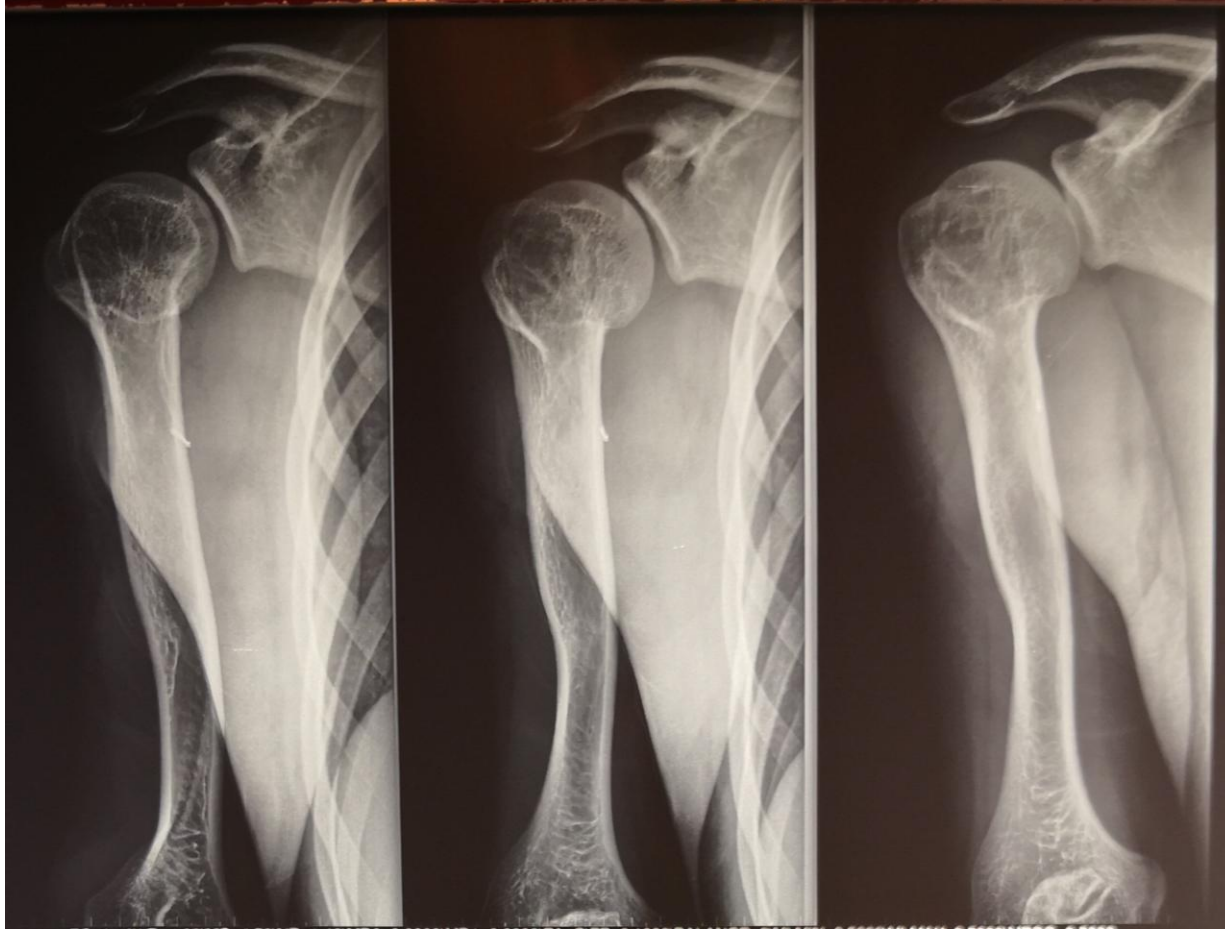
A case of physeal injury at the age of six

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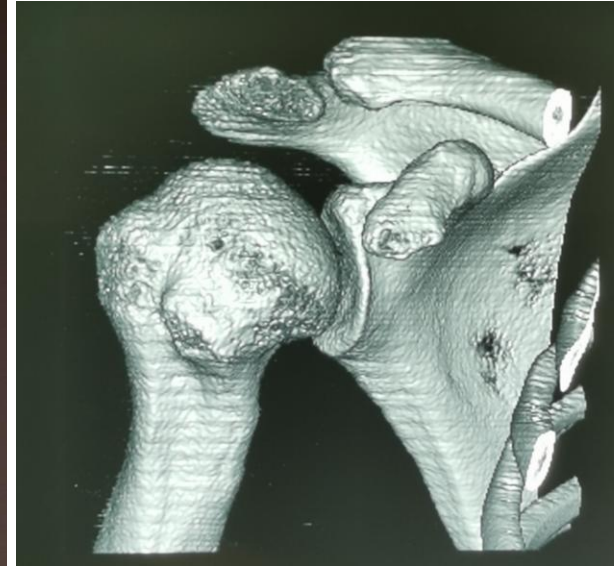


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8,5 cm shortening



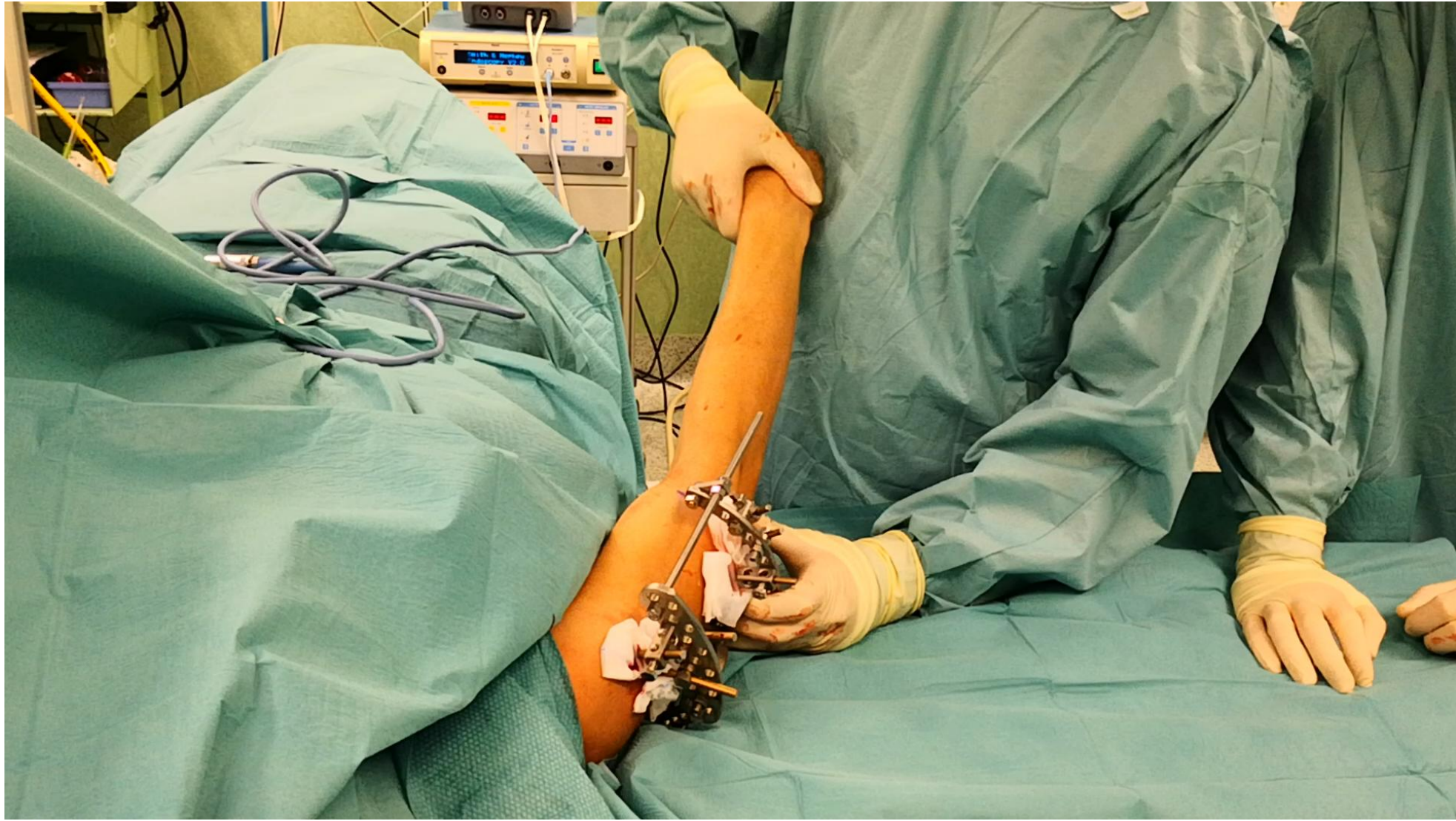
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8,5 cm shortening



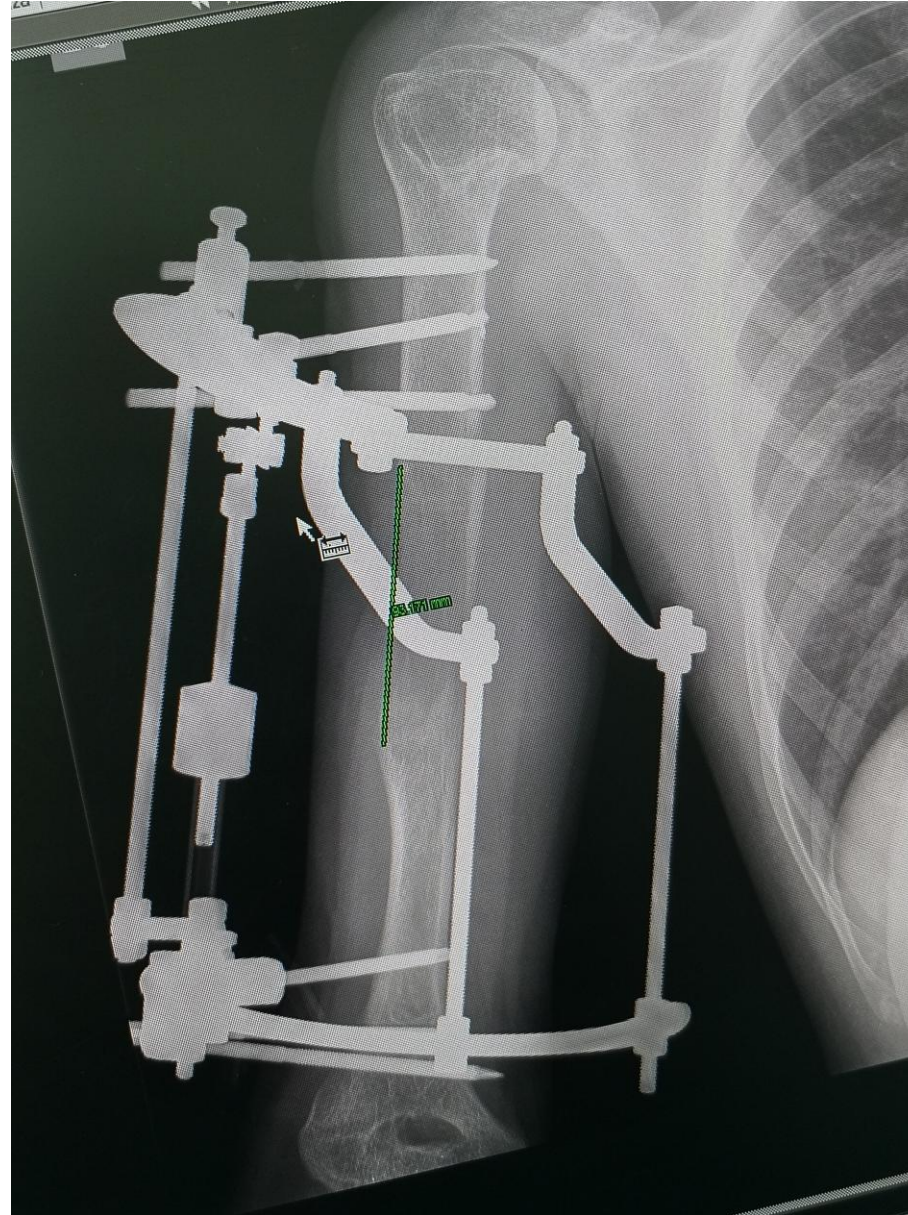
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SELECTIVE SENSORY PERIPEHERAL NERVE BLOCK

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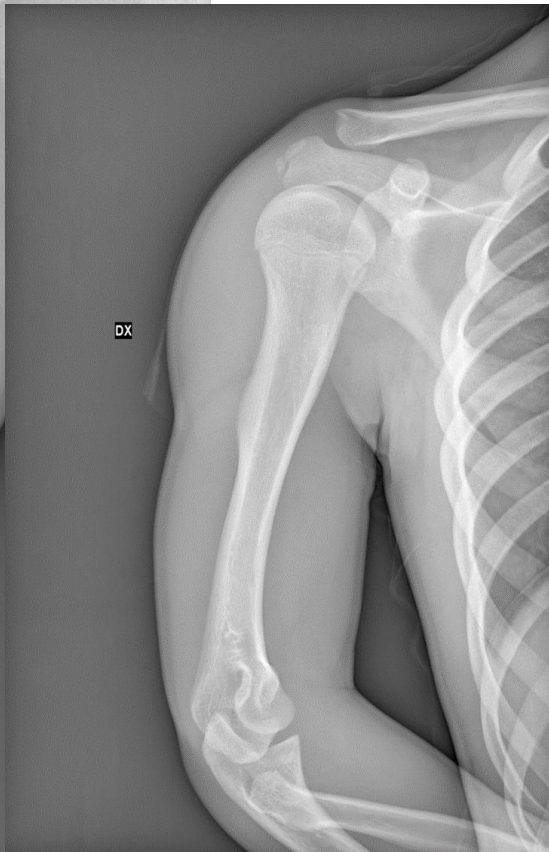
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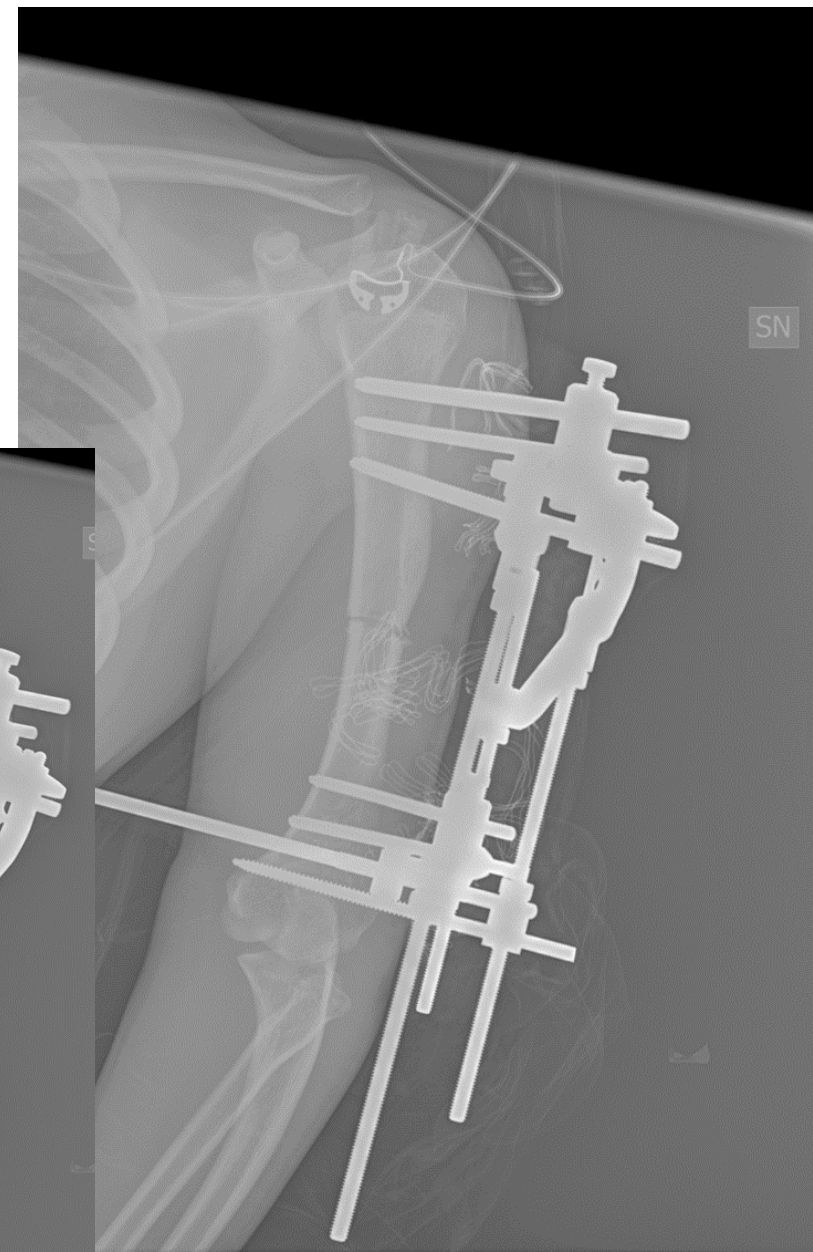
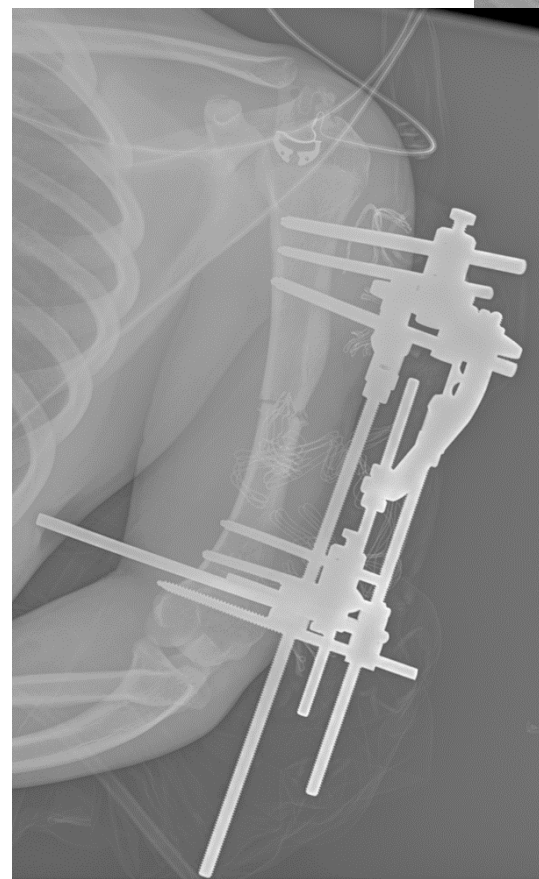
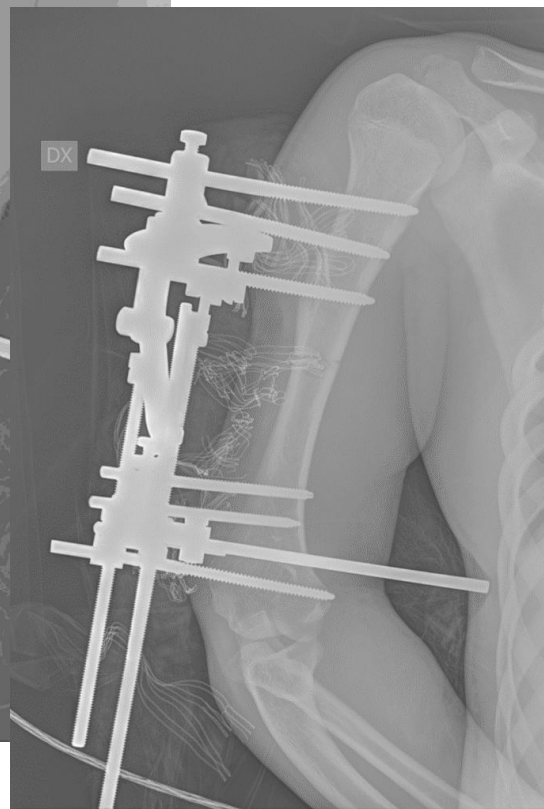
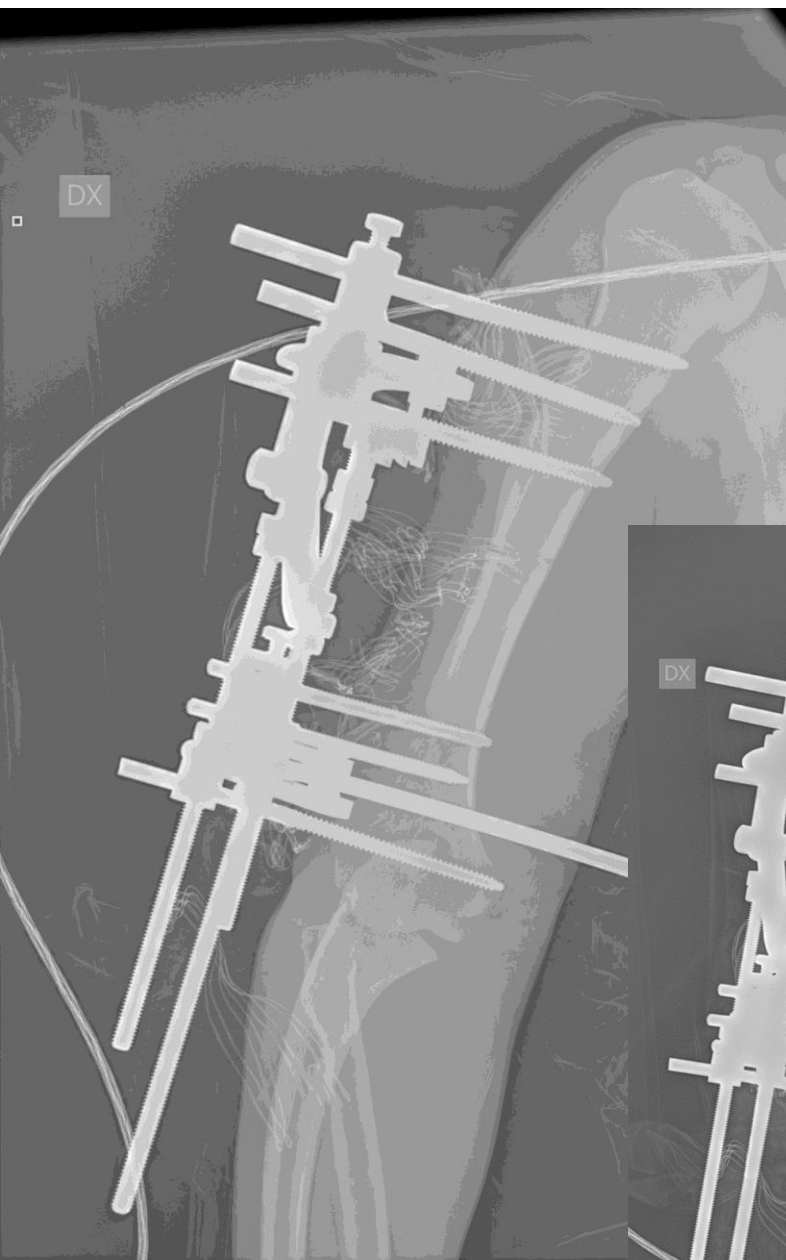


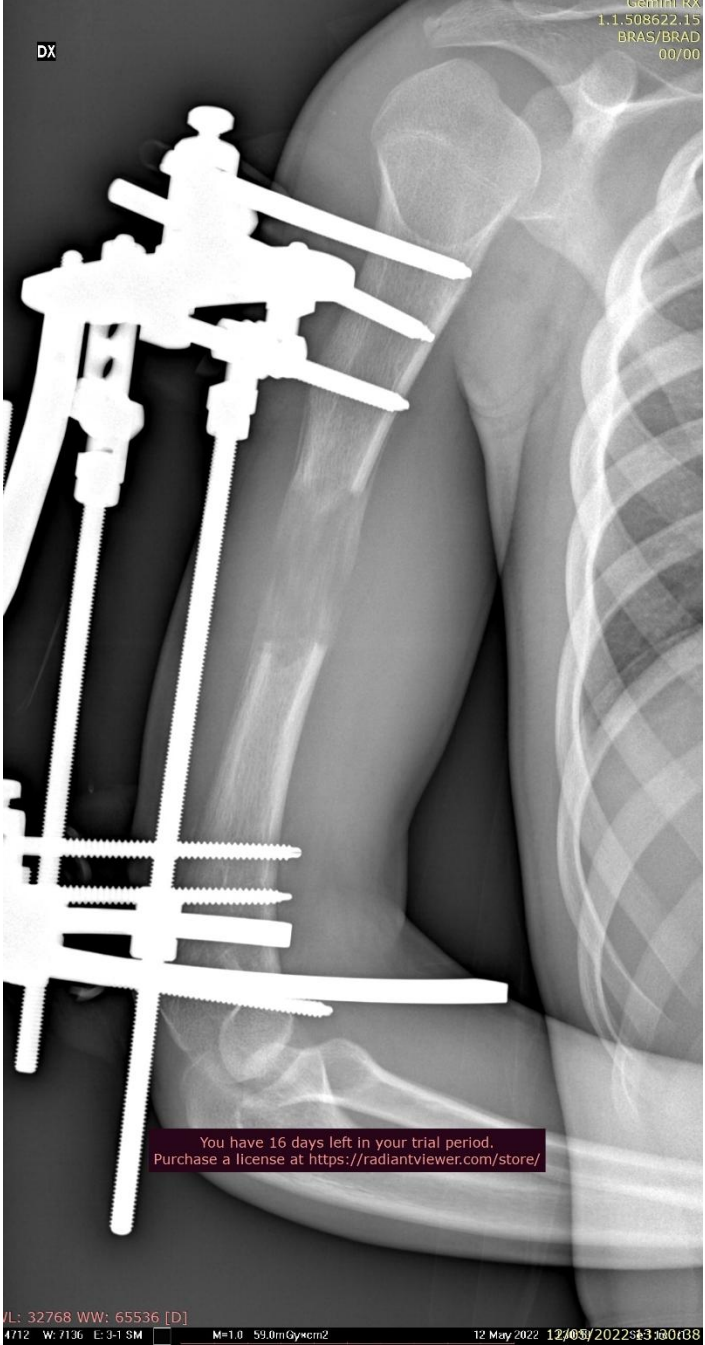
Achondroplasia

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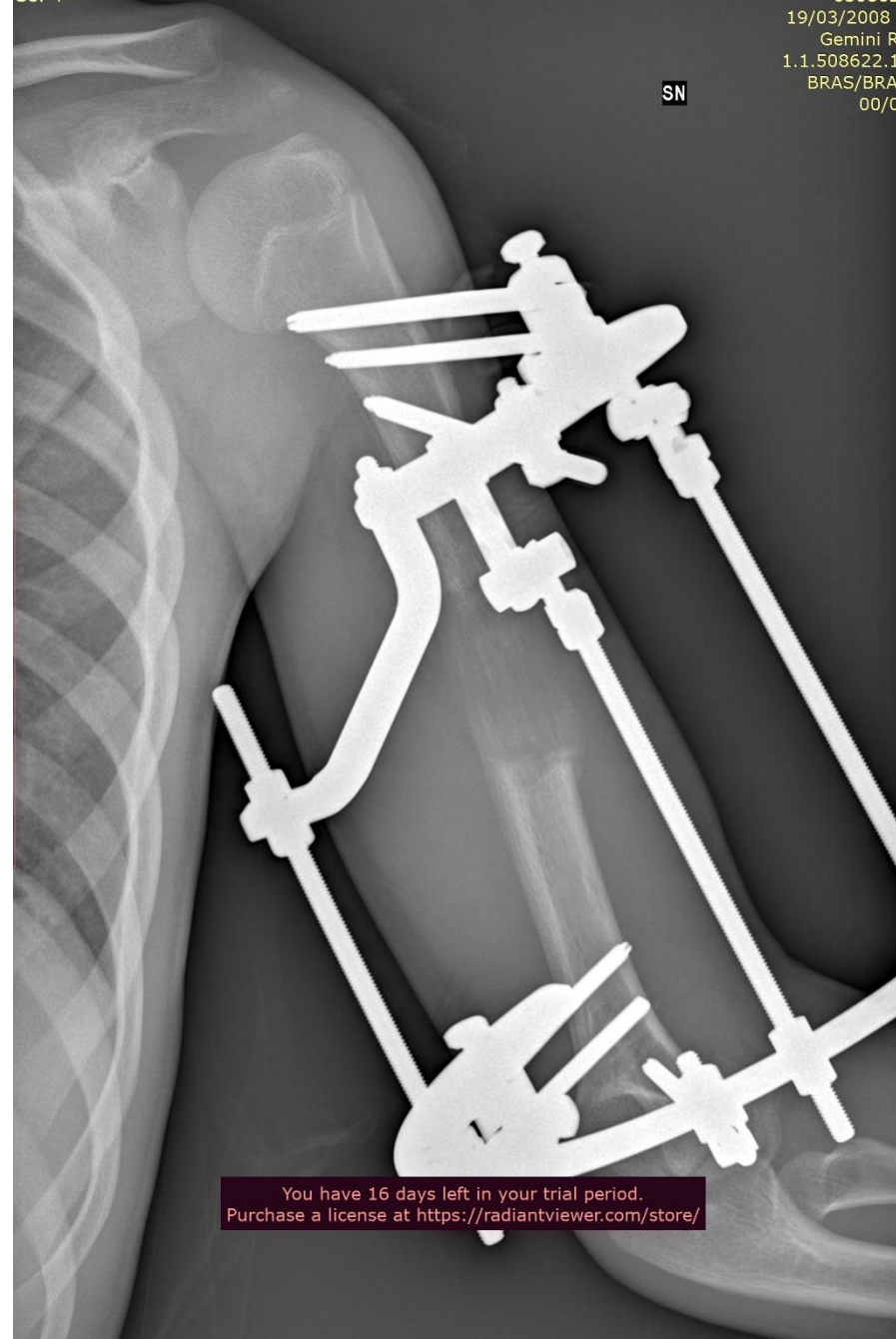
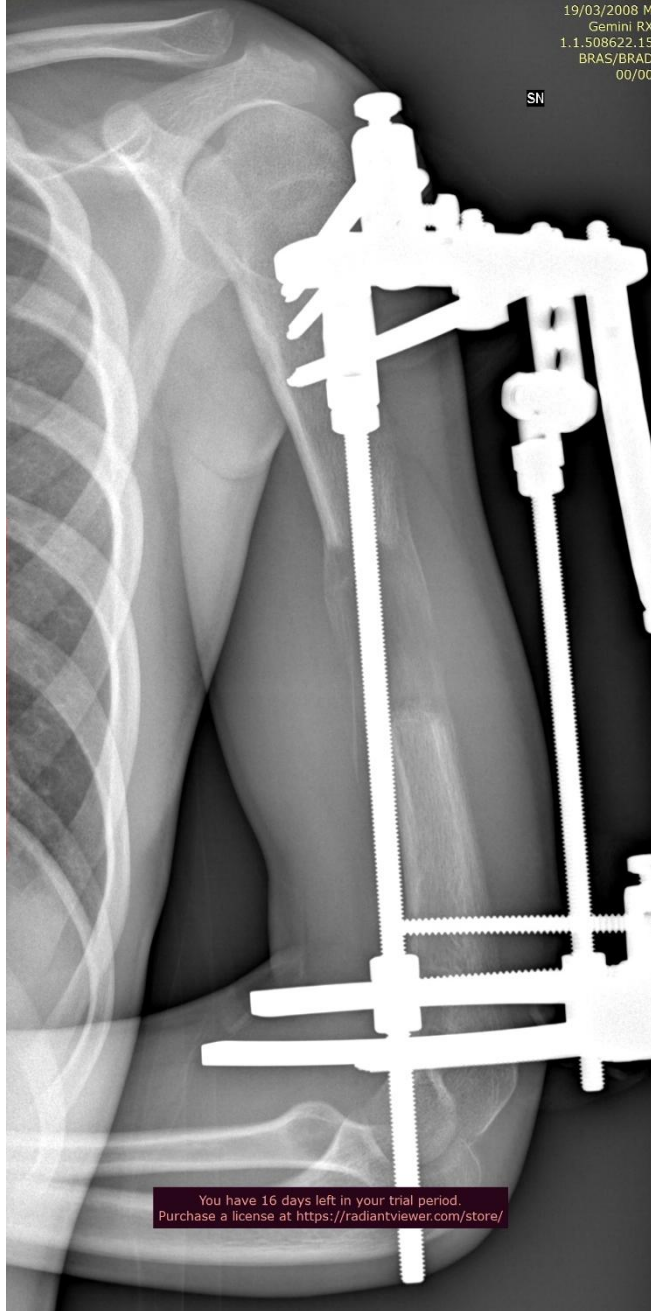








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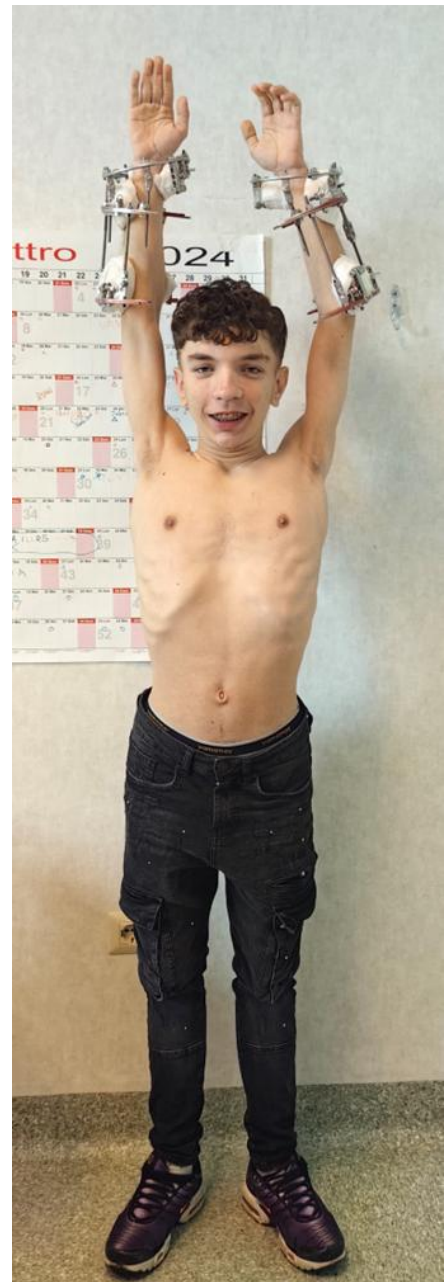


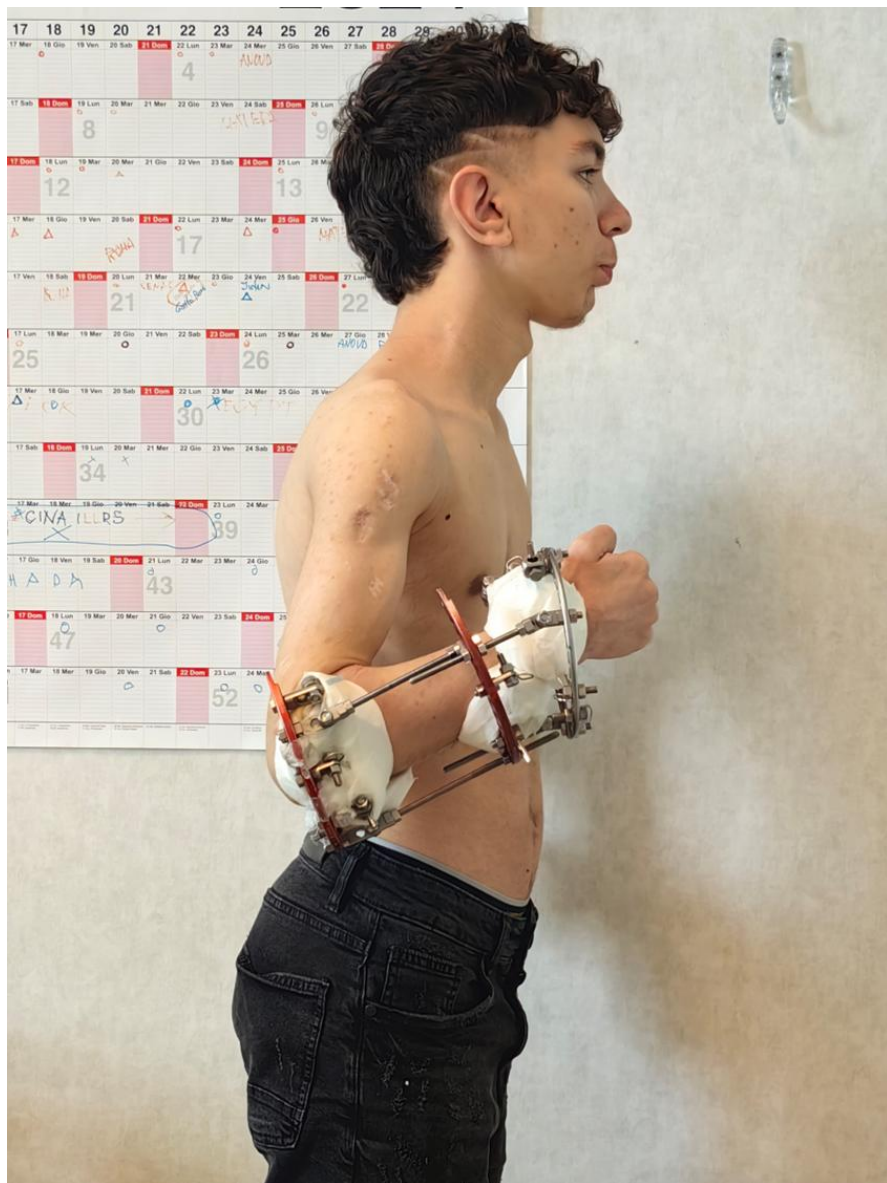


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AND OF THE FOREARM...







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Thank you





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