

Surgical treatment of the distal radius fractures

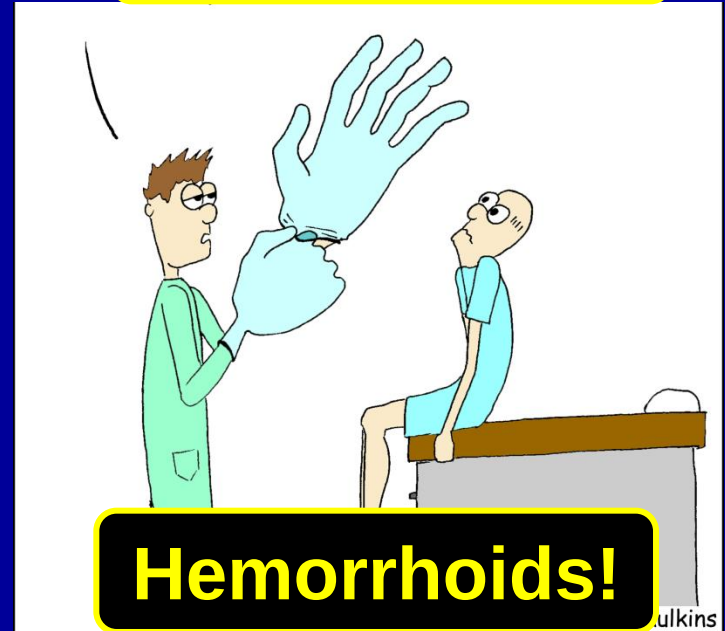
**Serhii
Tymoshenko
(Kiev, Ukraine)**

dentist



Caries!

proctologist



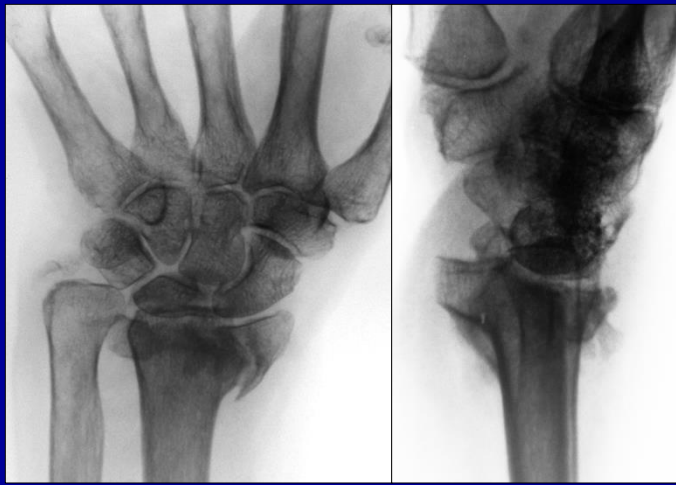
Hemorrhoids!

orthopedist



distal radius fractures!





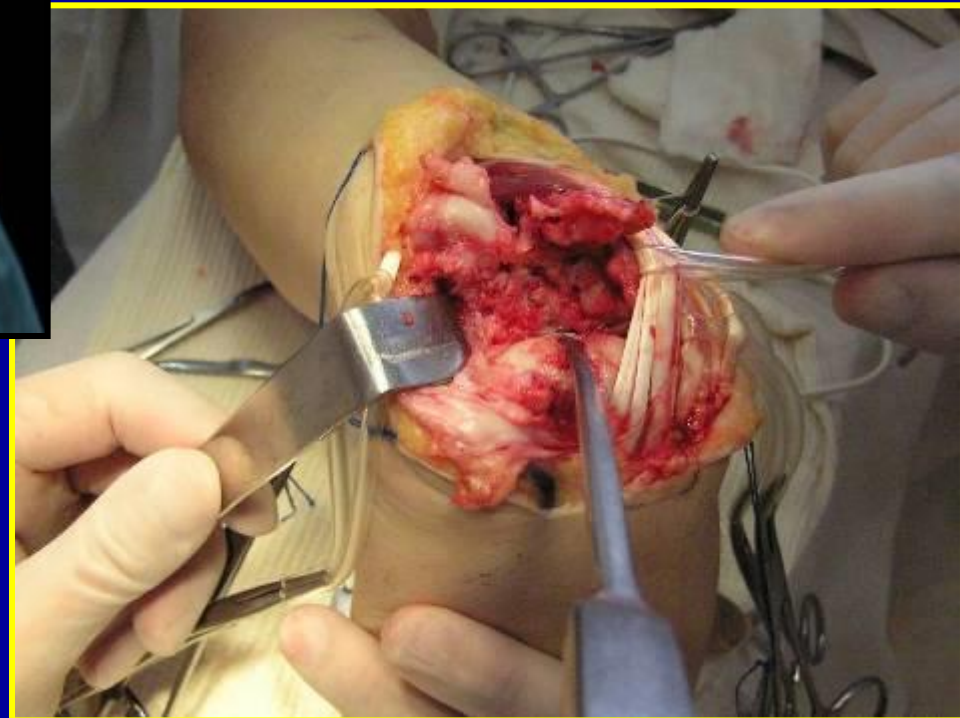
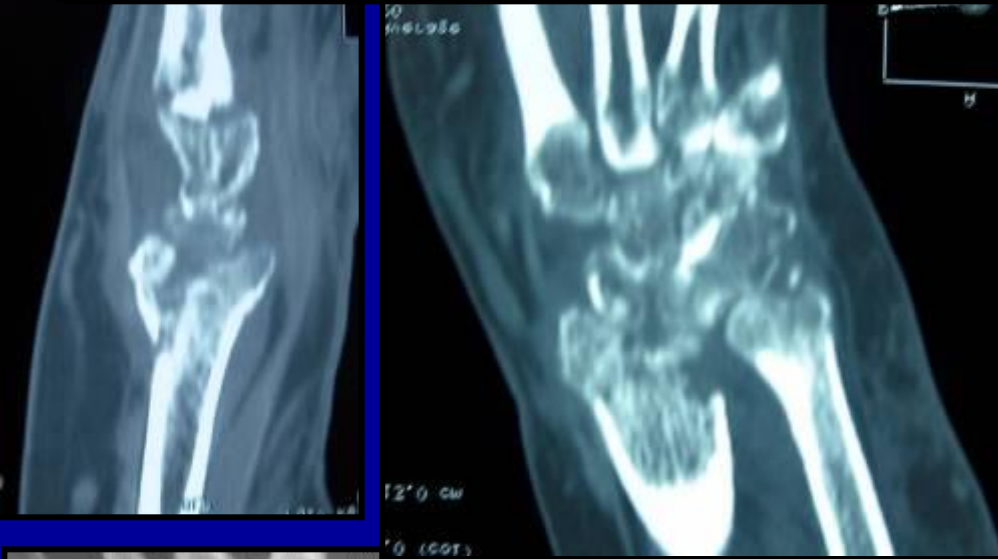
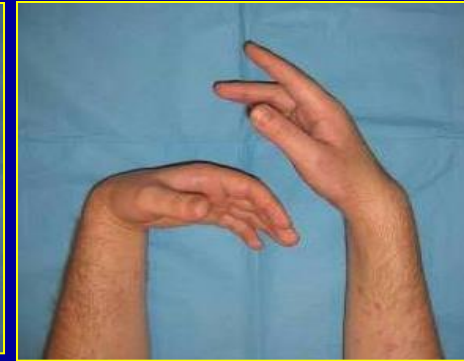
Deformity – NO PROBLEM ! (?)

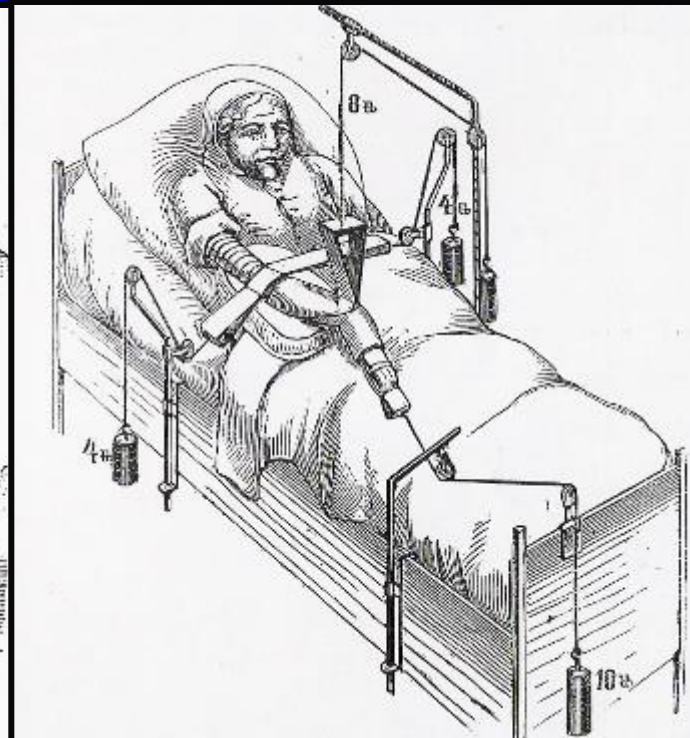
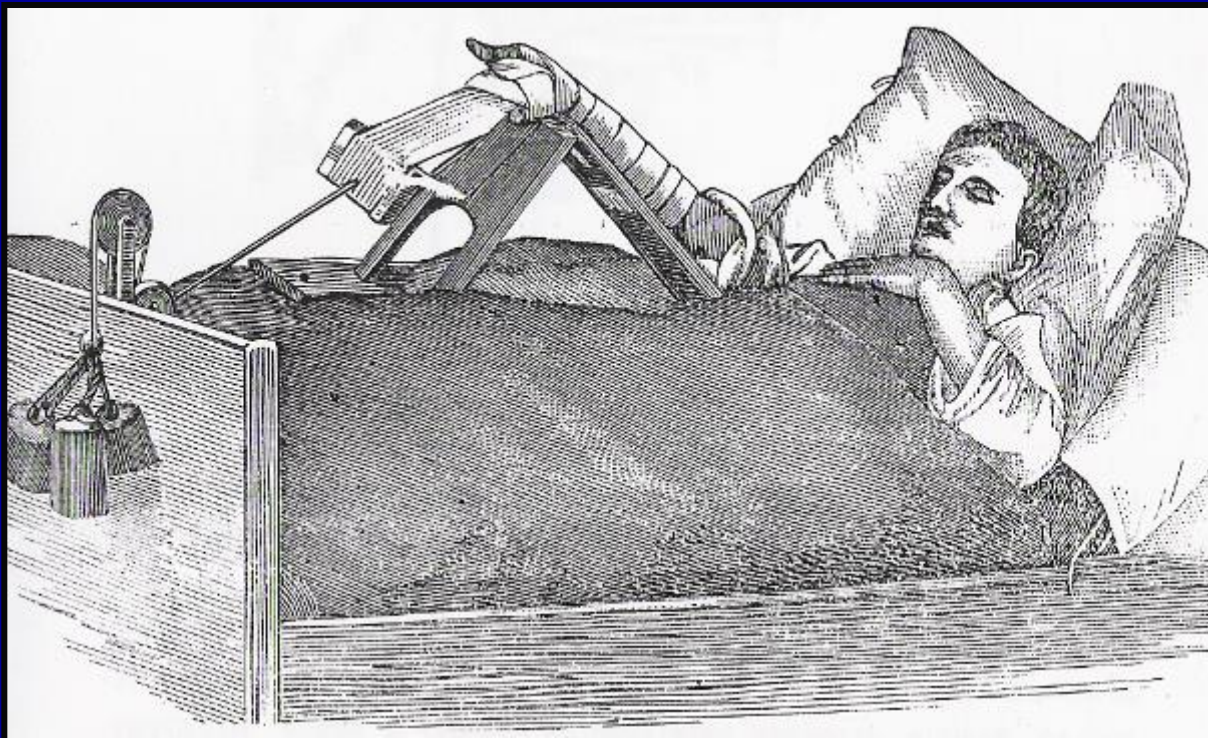
Abraham Colles
Edinburg Med and Surgical Journal
1814



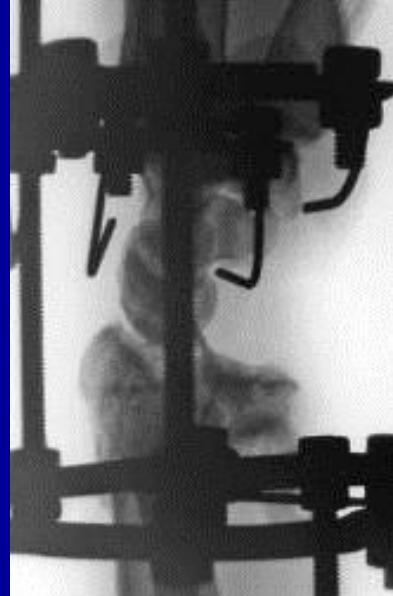
Young Adults – disaster consequences

Corrective osteotomy – problematic



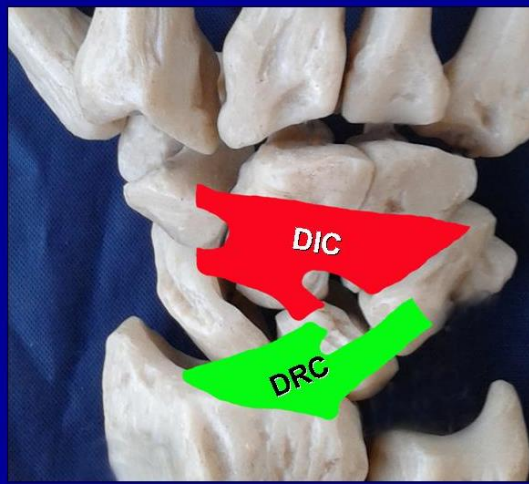
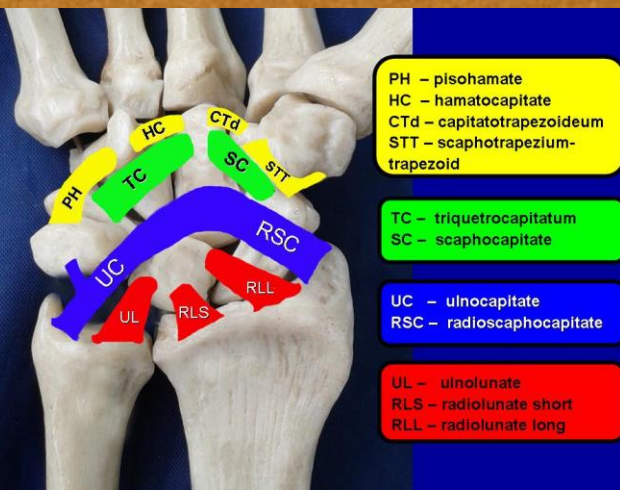
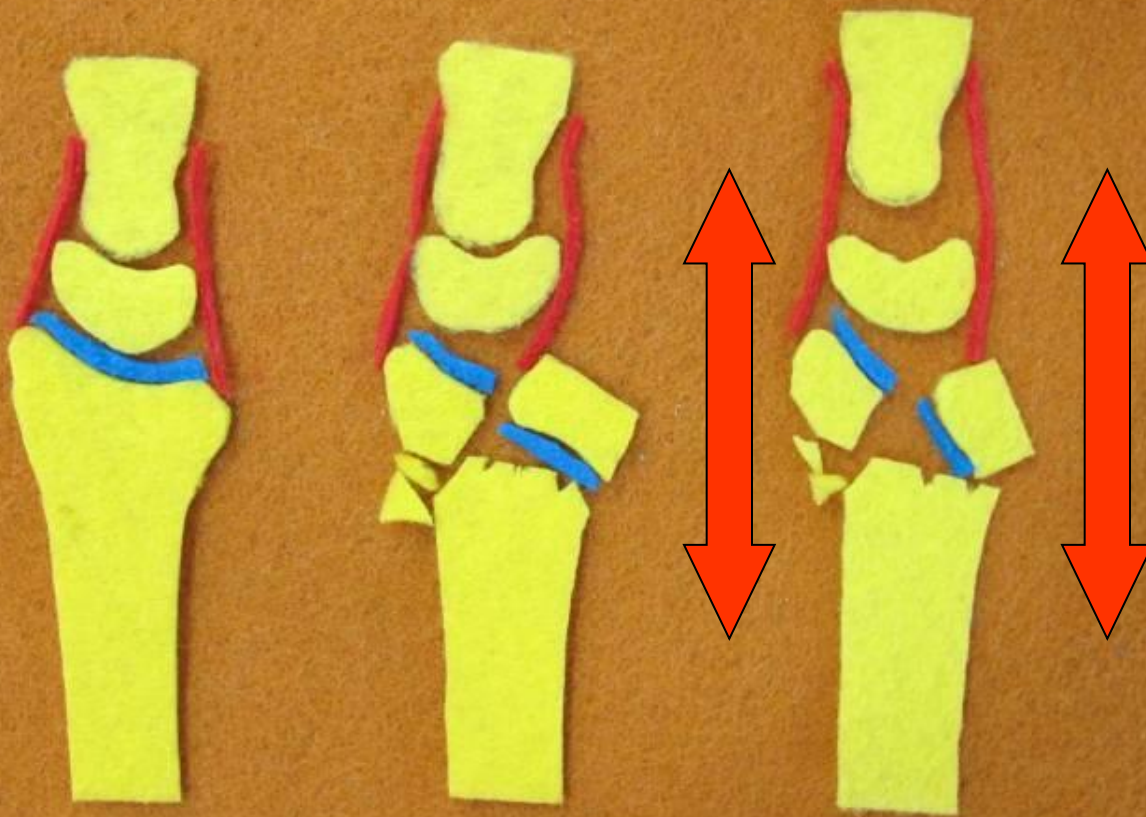


Ligamentotaxis doesn't work!



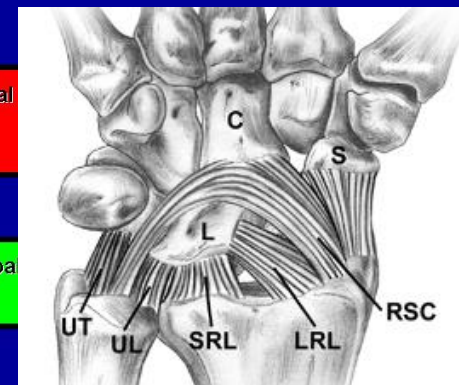
Ligamentotaxis





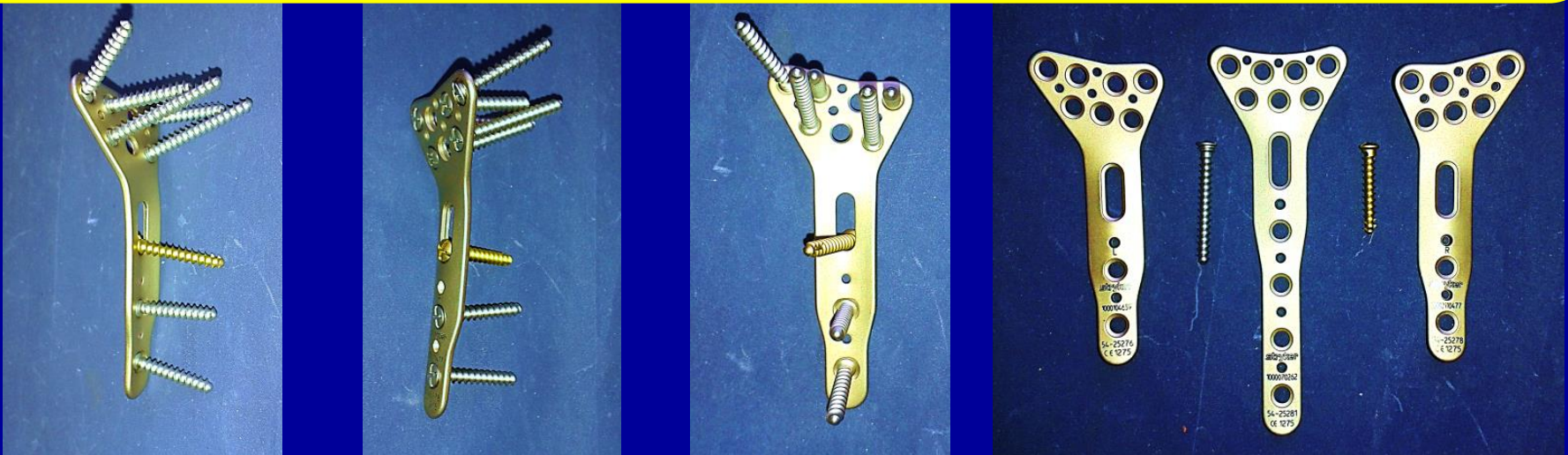
DIC dorsal intercarpal ligament

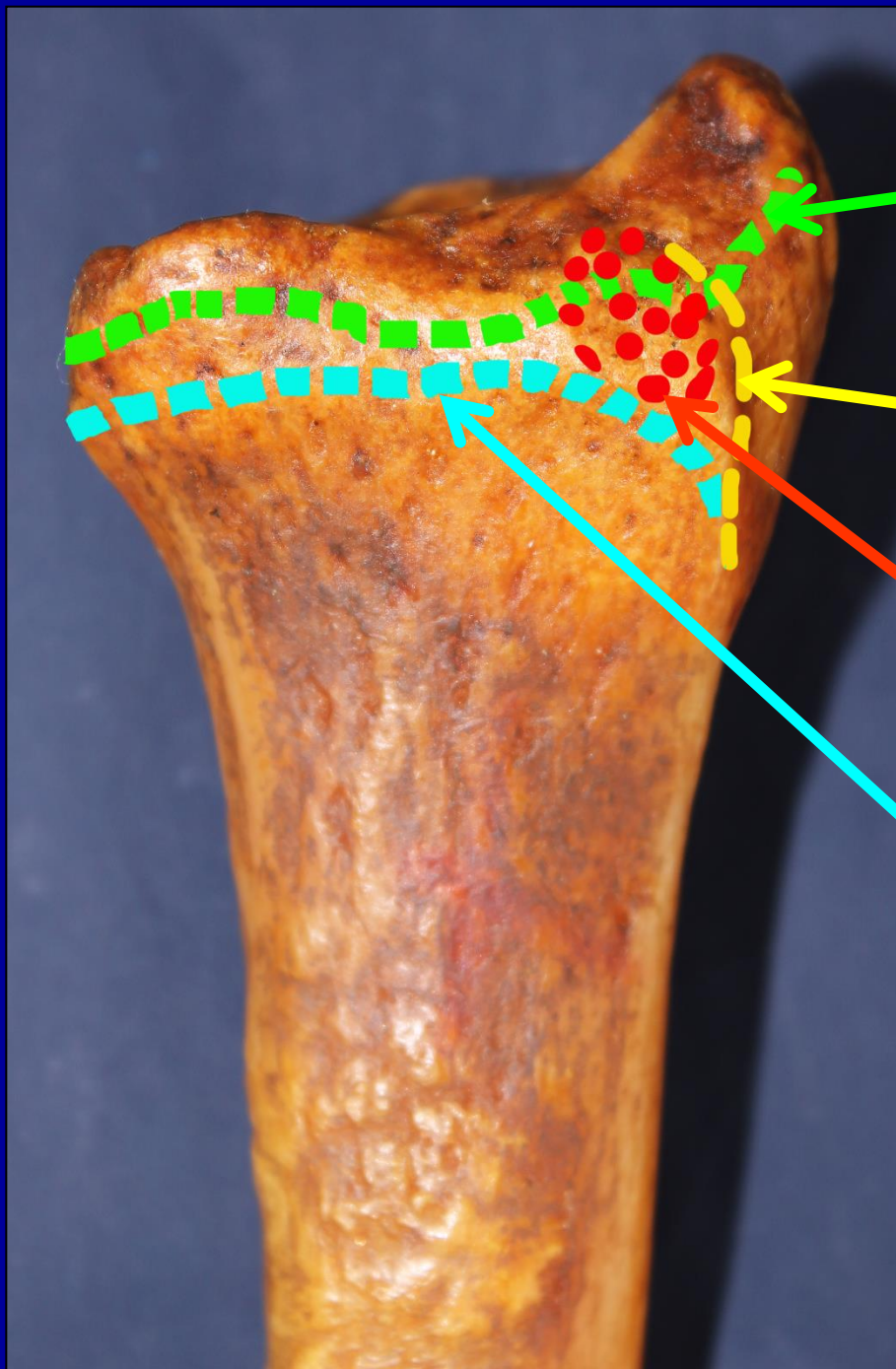
DRC dorsal radiocarpa ligament





Anatomic, low profile, locking
↑#screw ↓diameter



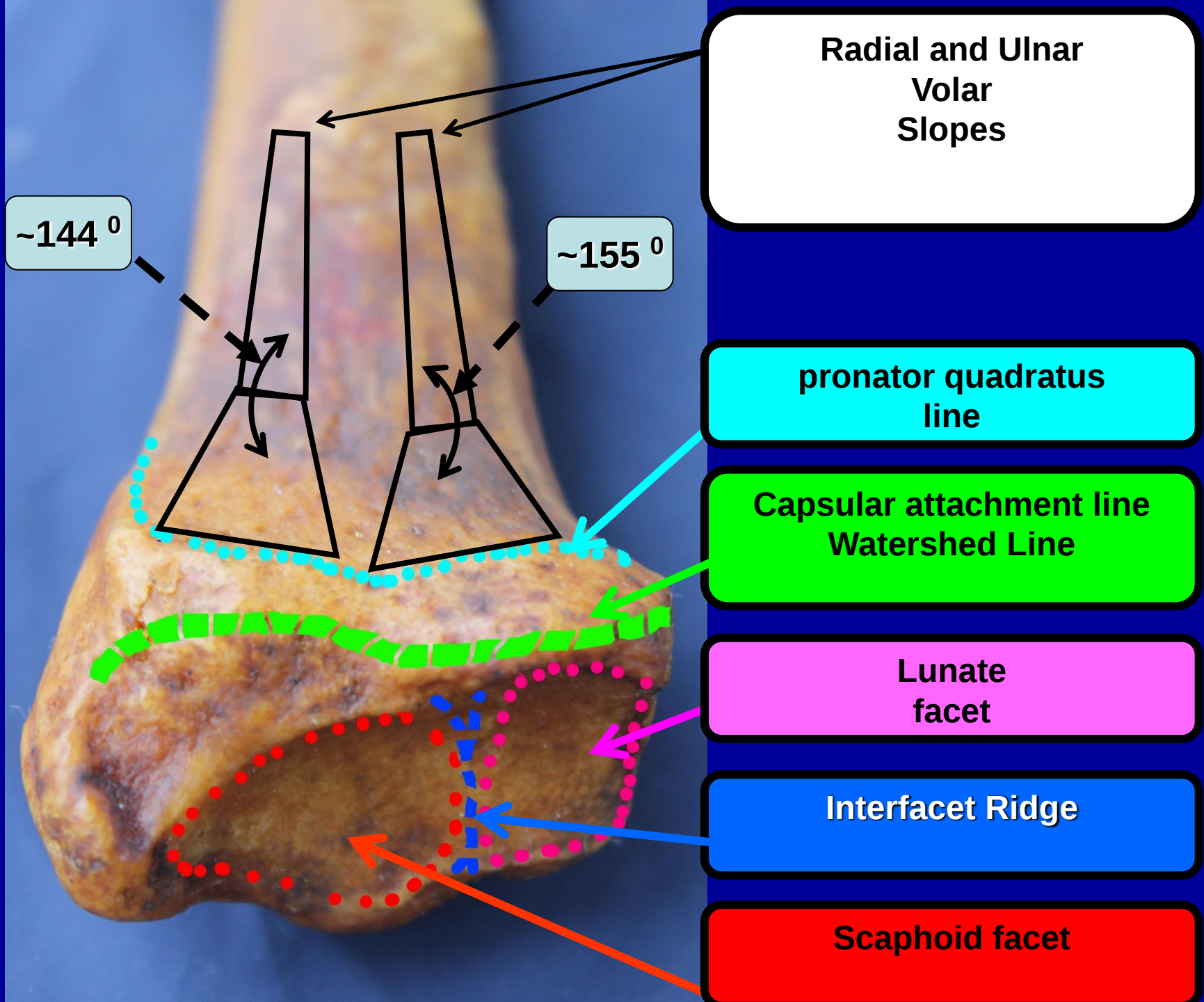


**Capsular attachment line
Watershed Line**

Volar Radial Ridge

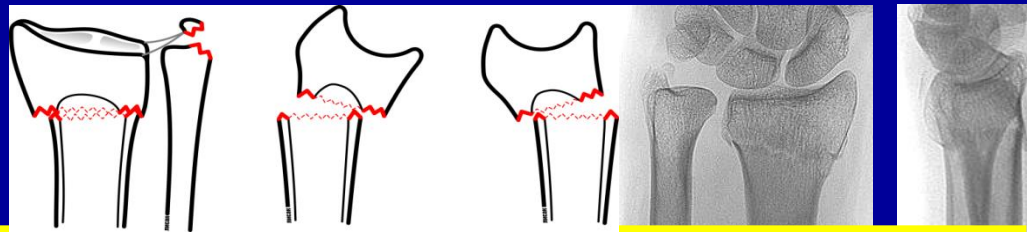
**Volar Radial
Tuberosity**

**pronator quadratus
line**

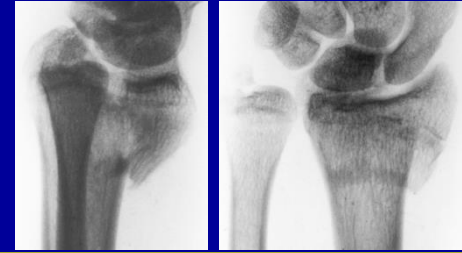
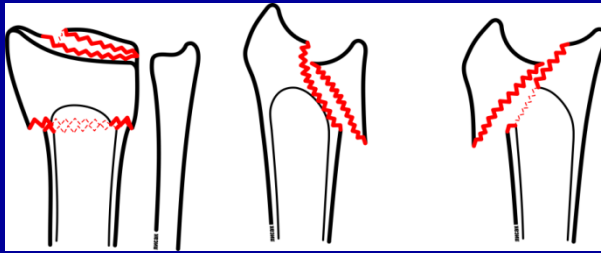


Fernandez D. 1987 Classification

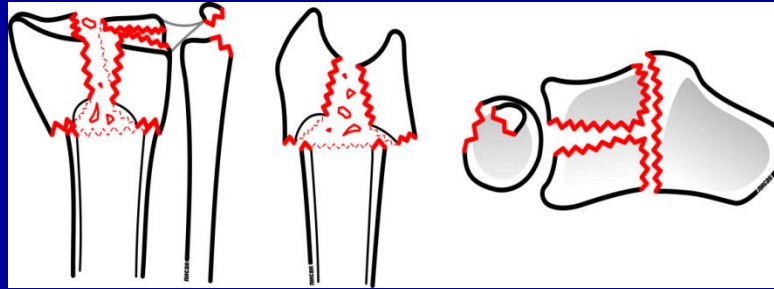
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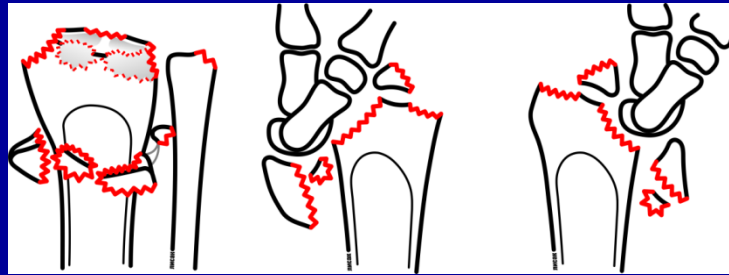
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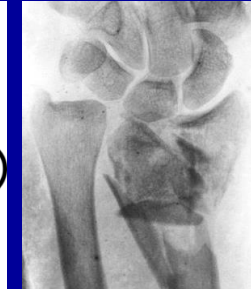
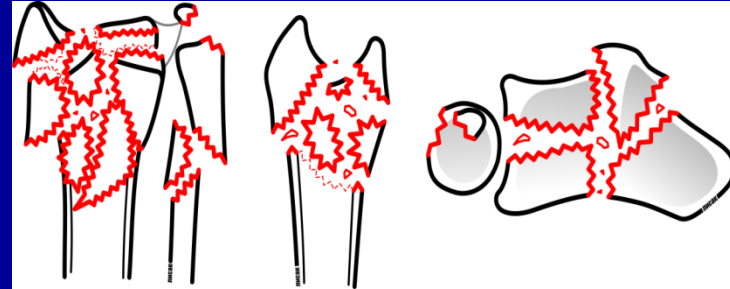
III



IV



V



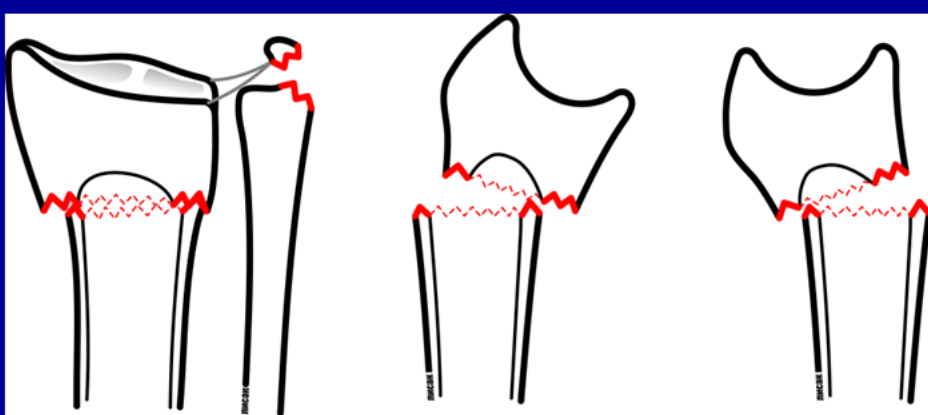
I type



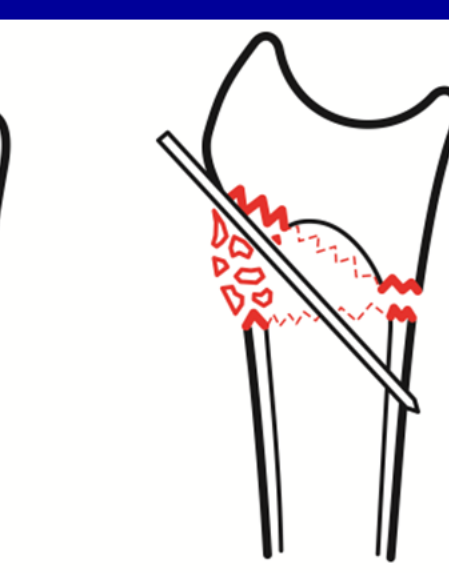
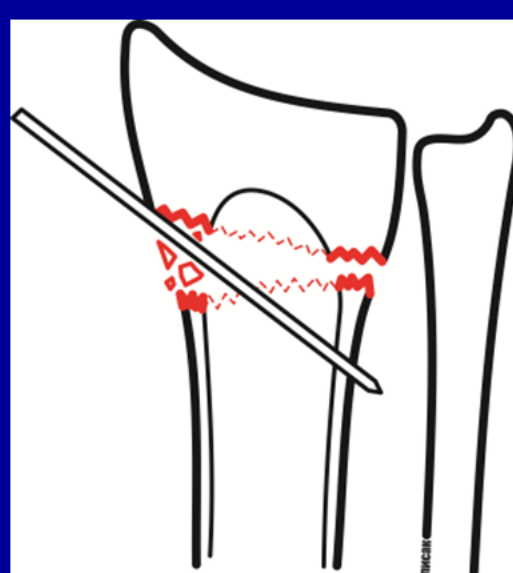
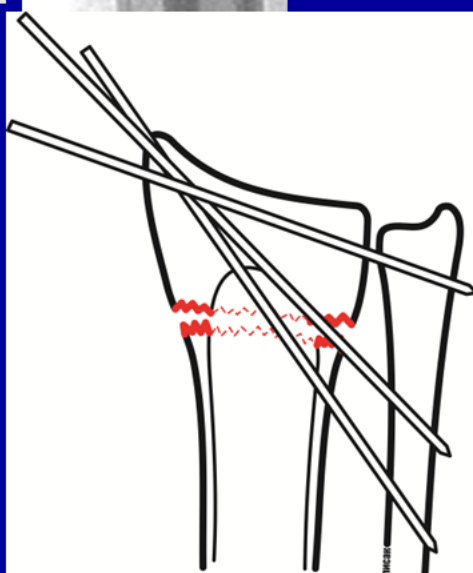
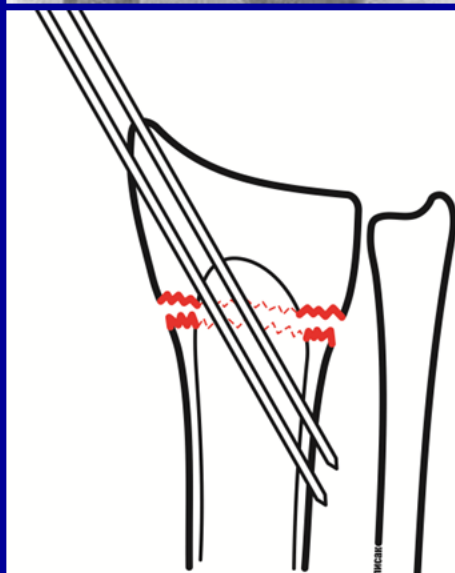
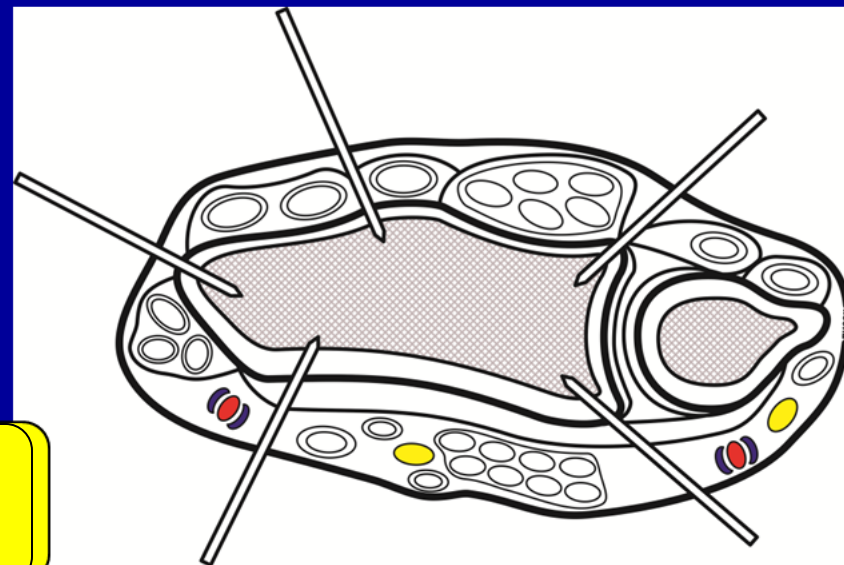
**Cotton-Loder
position**

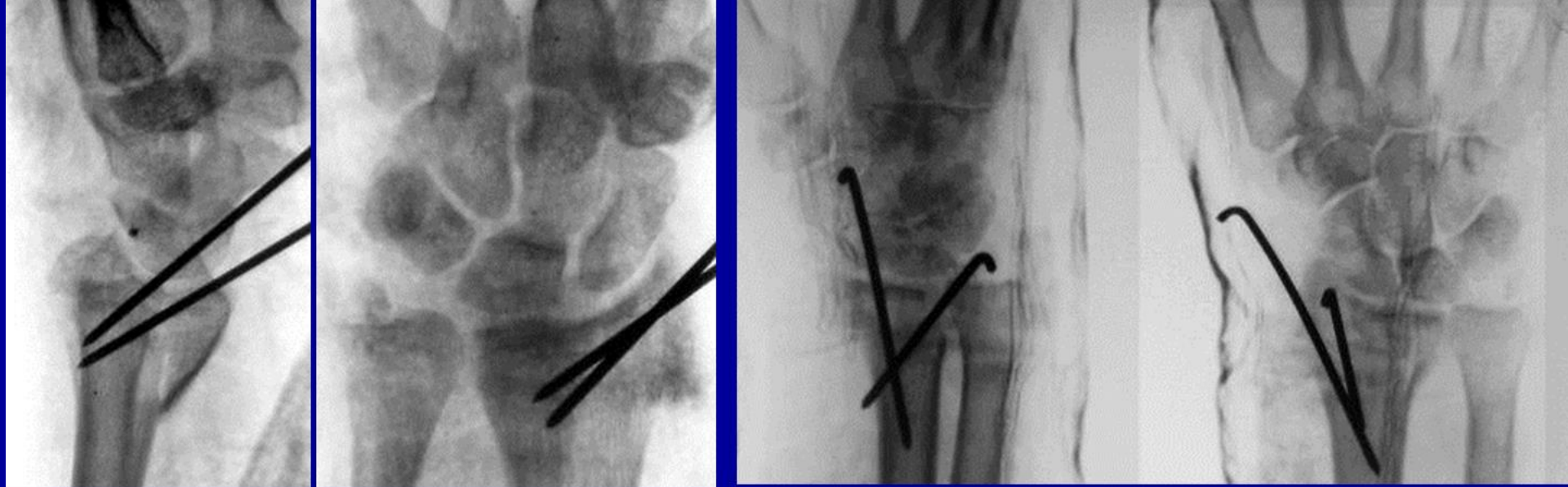


sugar tong splint

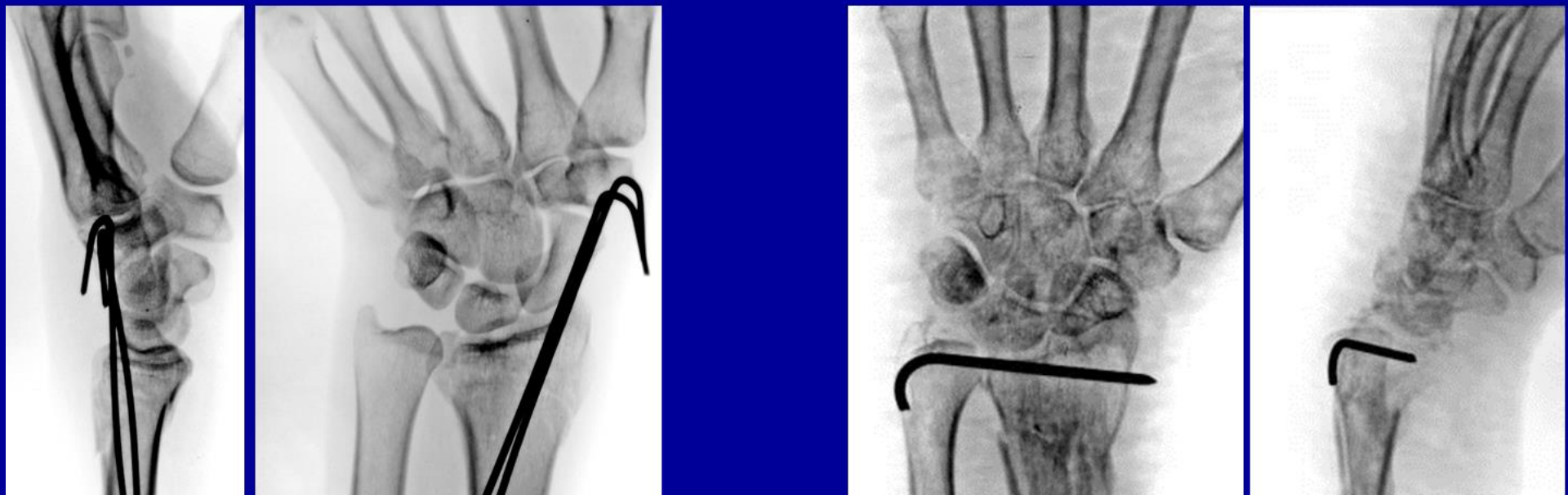


I type



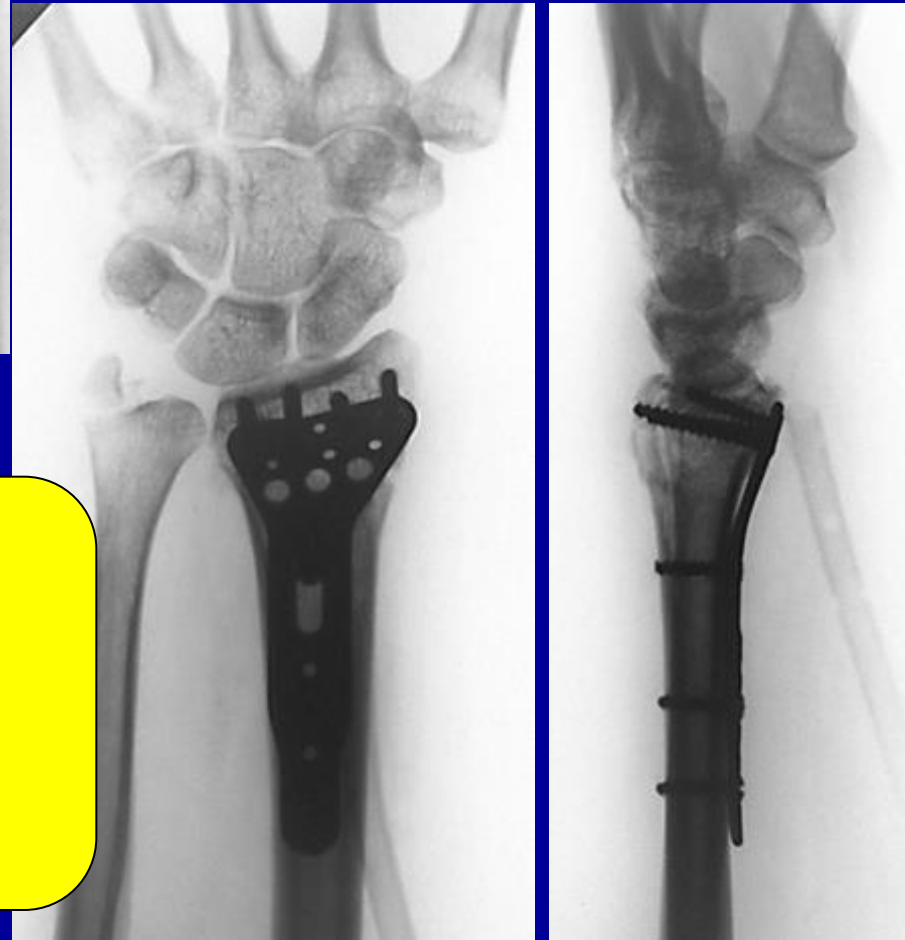


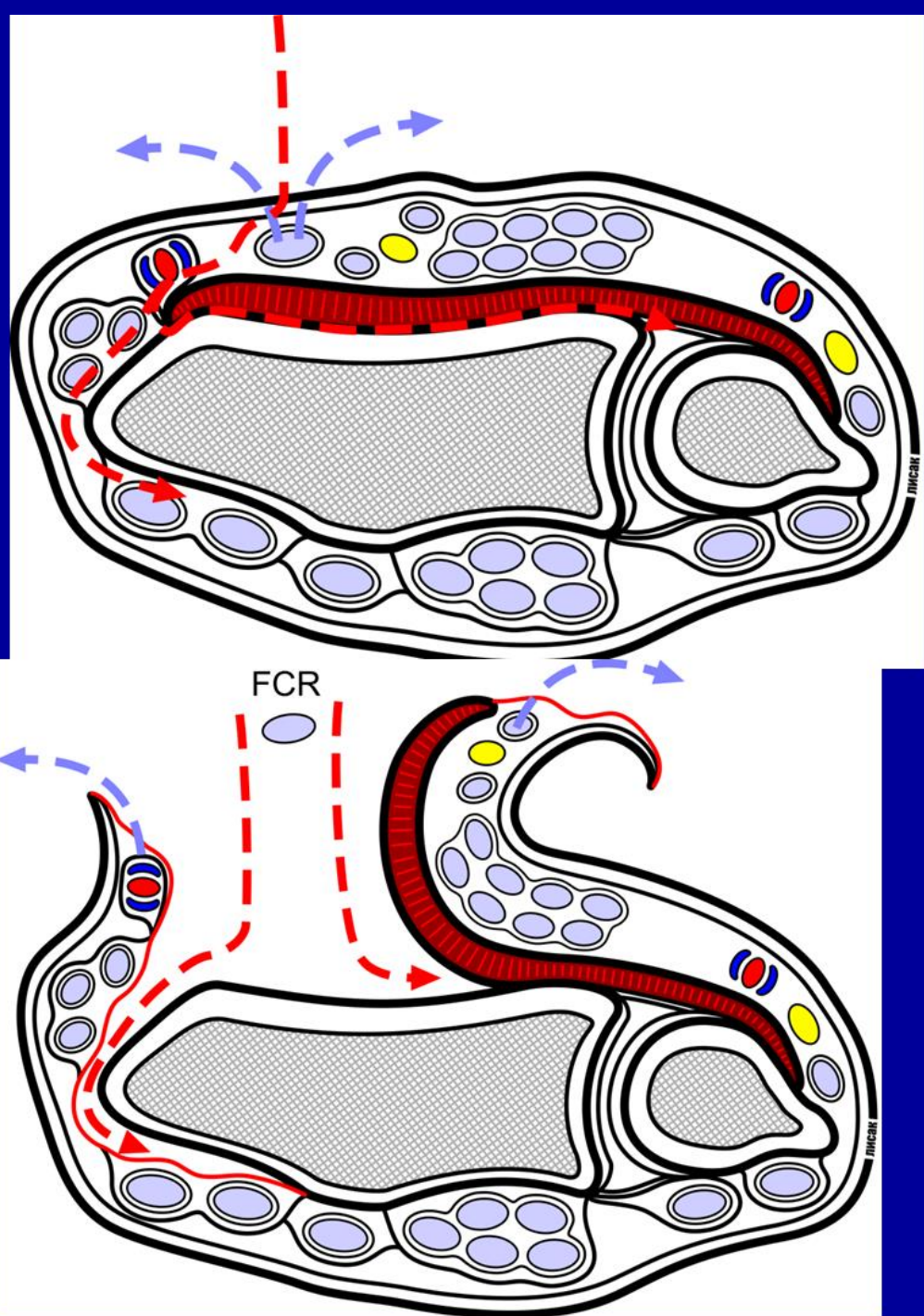
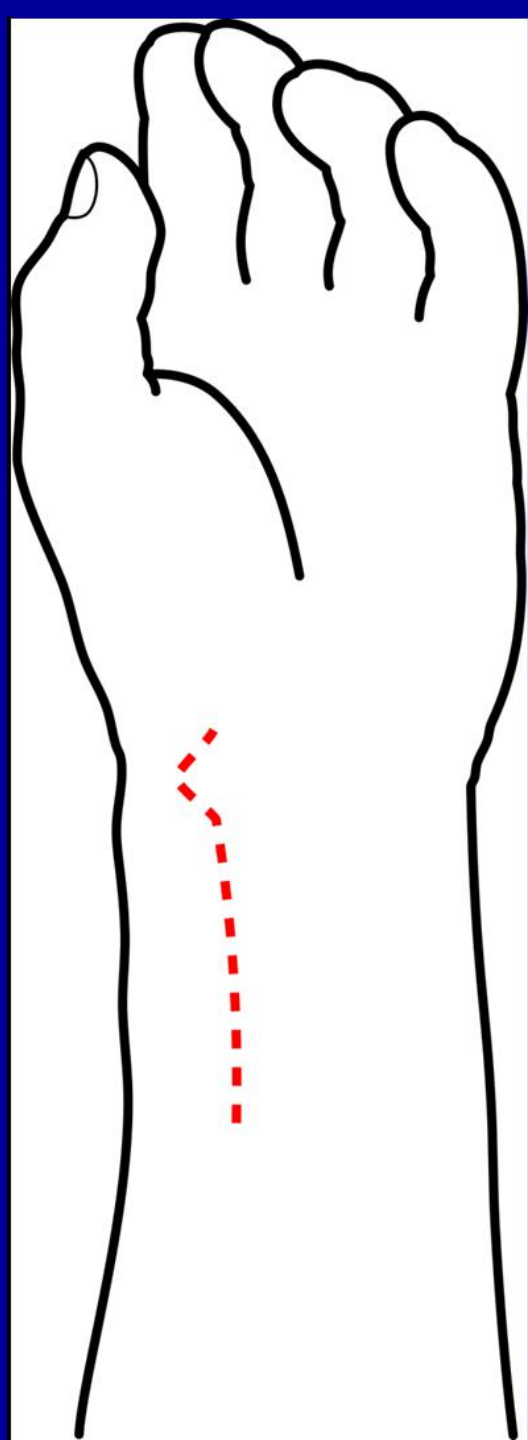
K-wire fixation

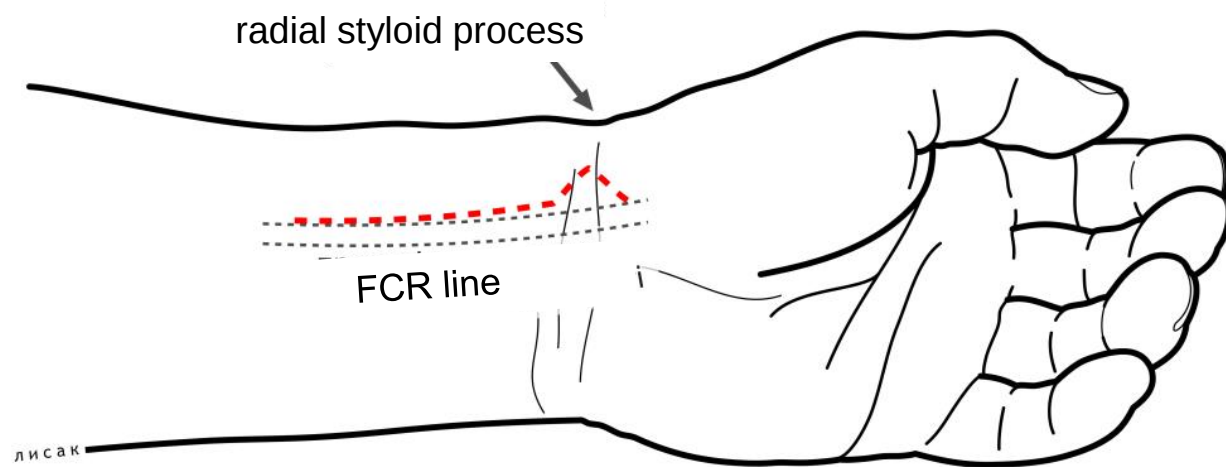


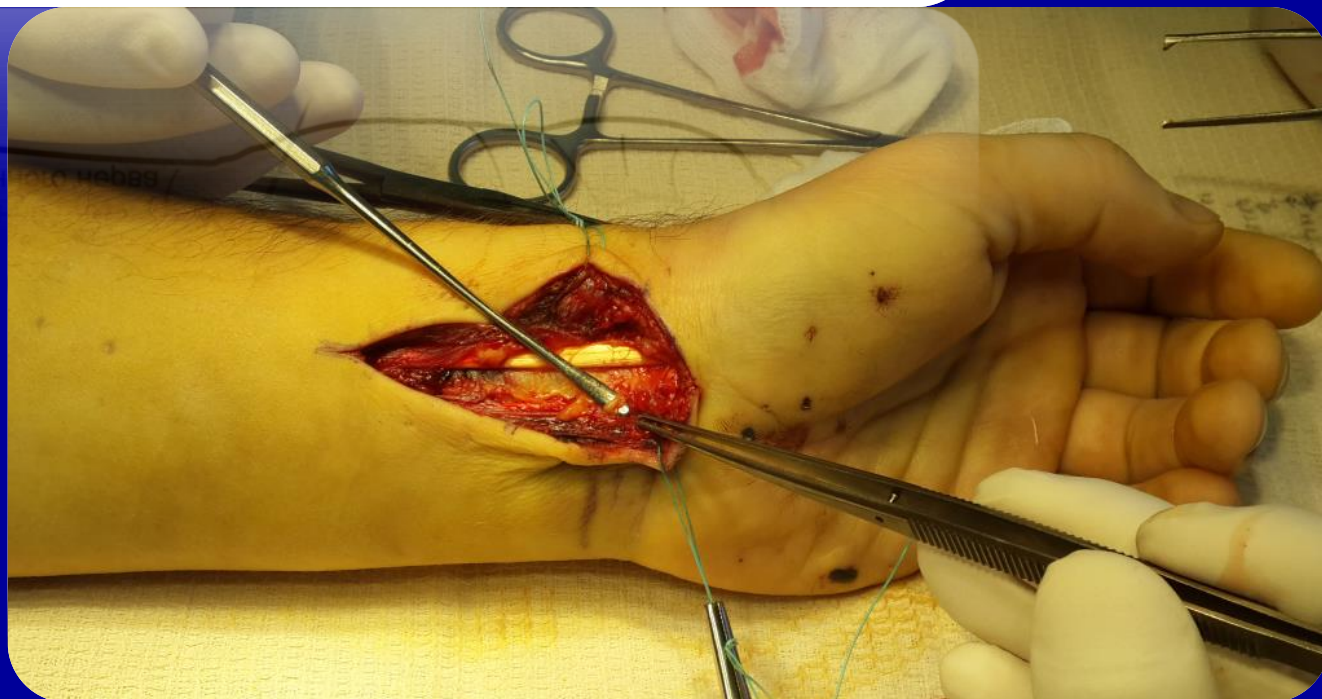
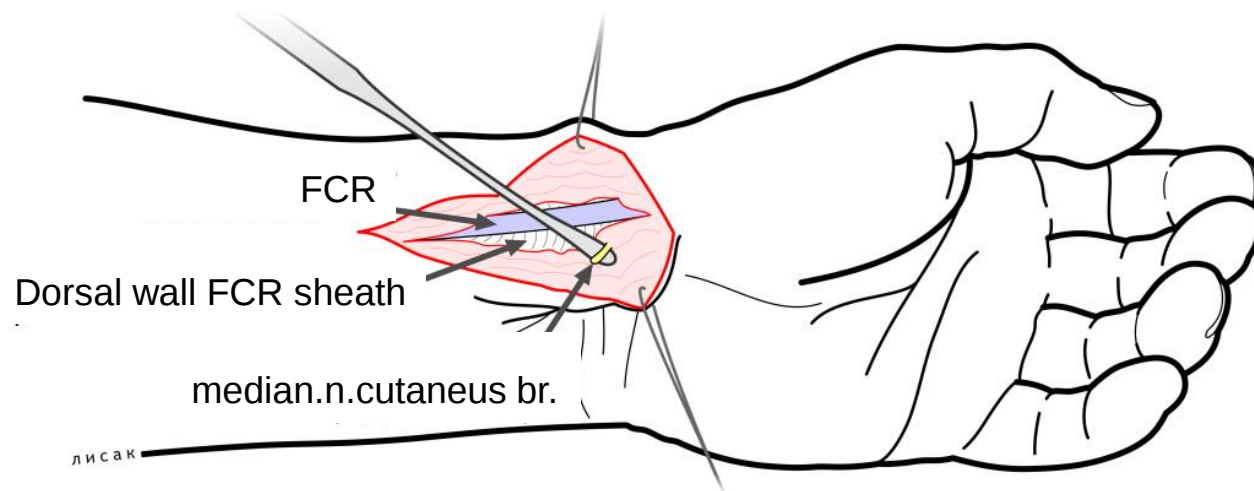
I type

**Late/secondary dislocating
Young patients
High demand patient
Fast recovery**





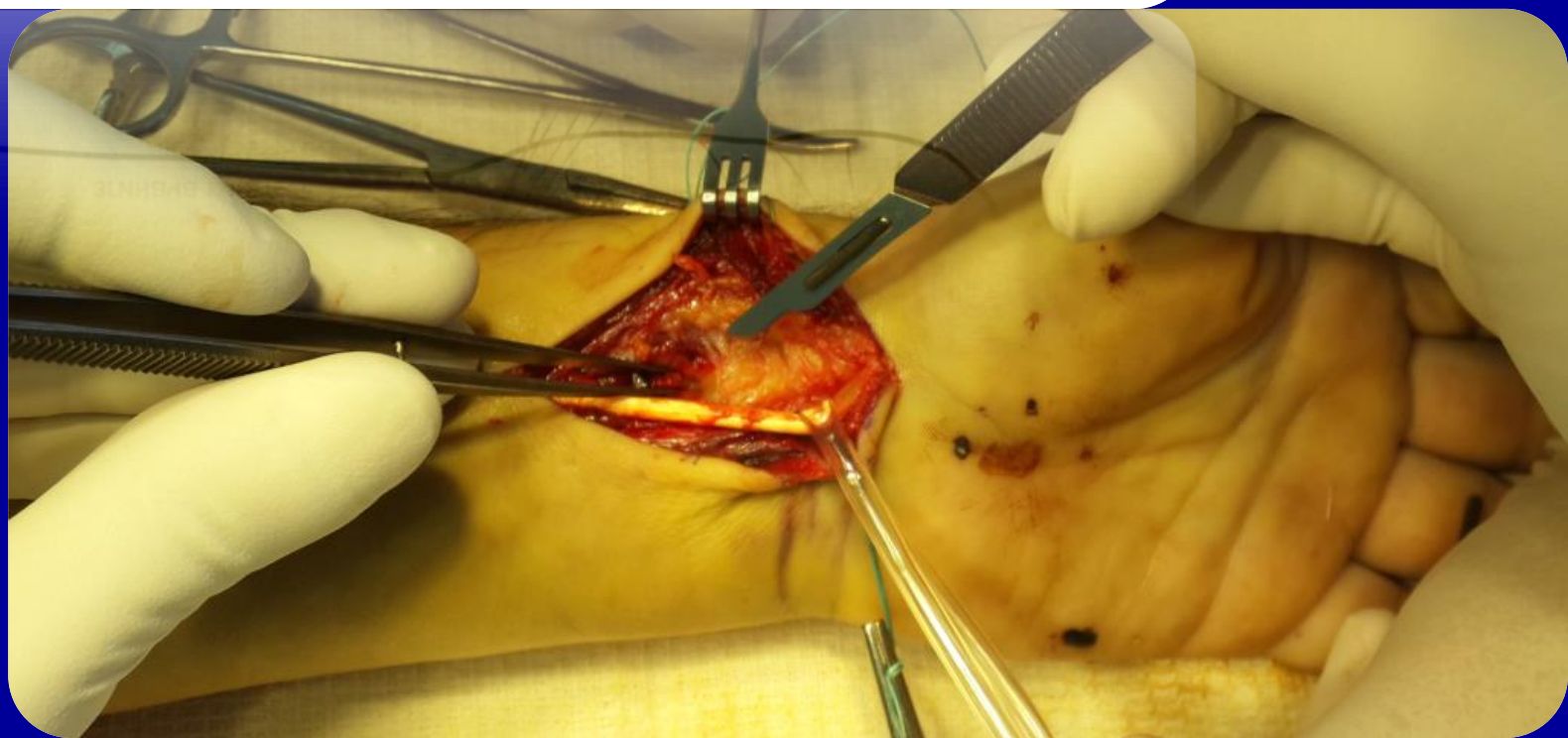
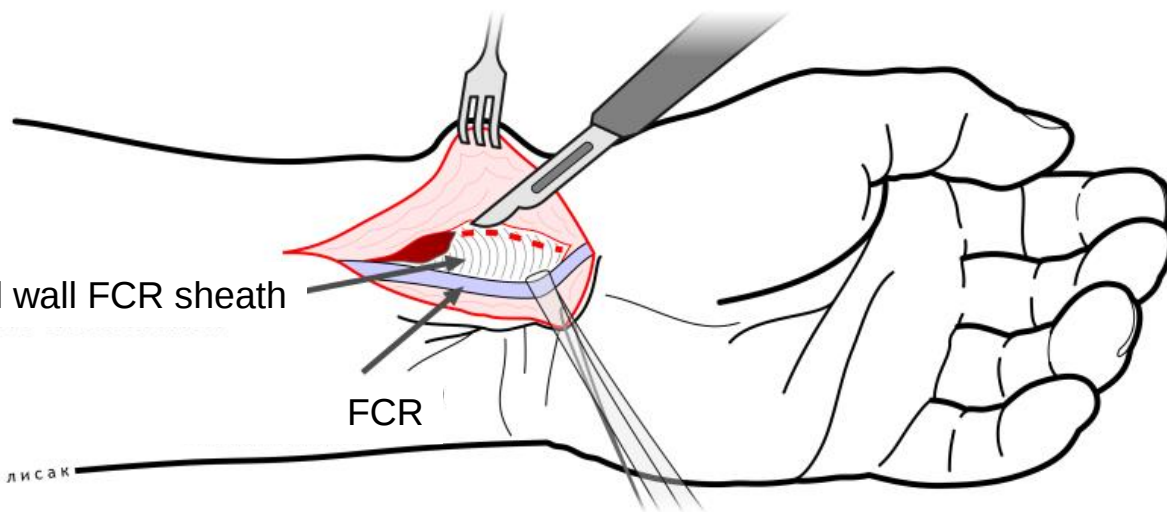


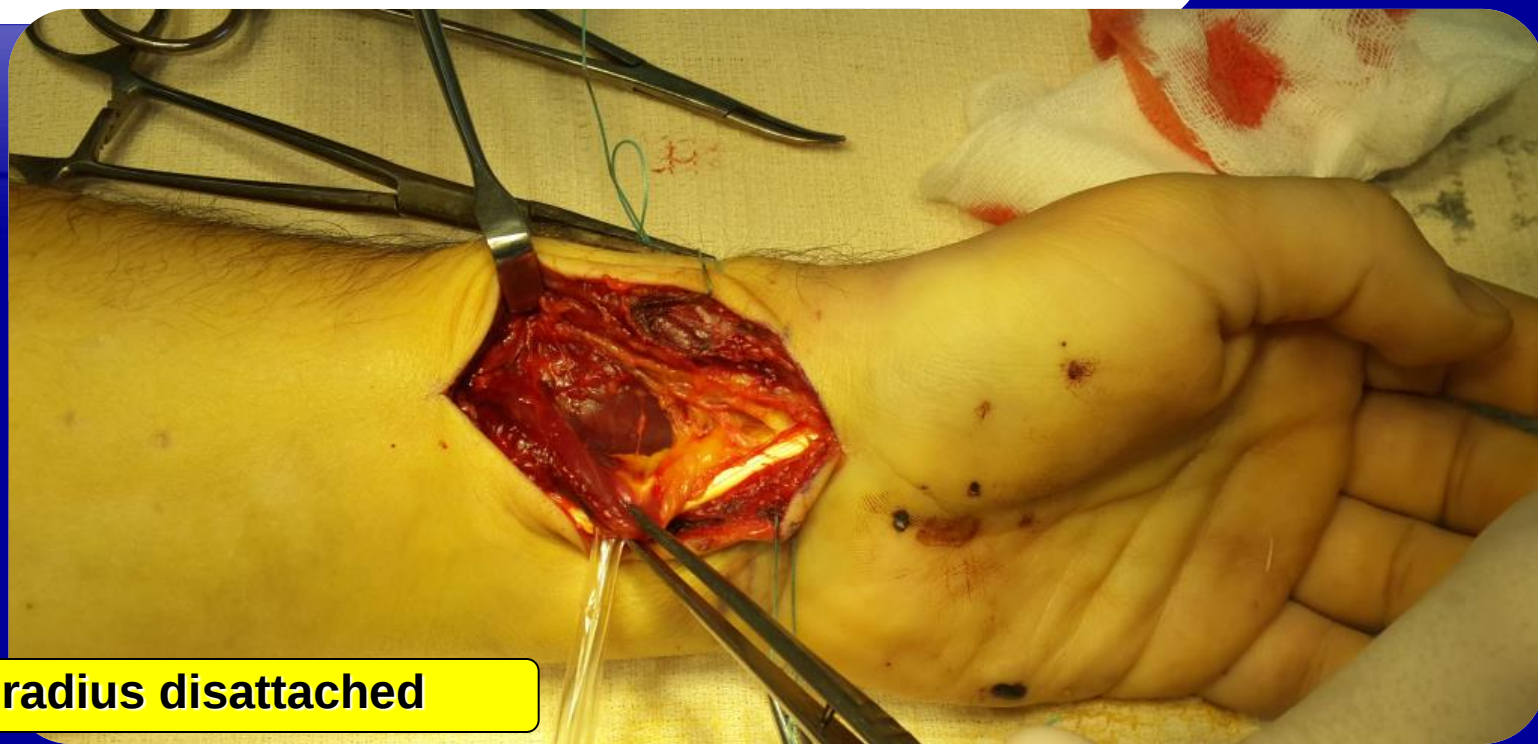
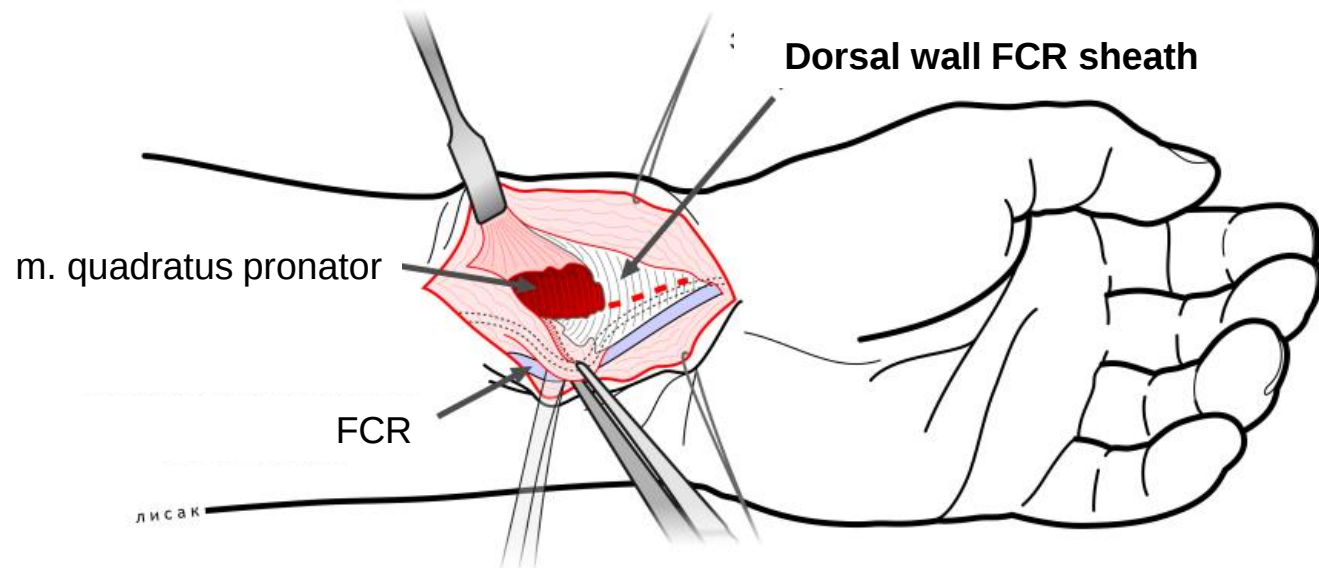


Dorsal wall FCR sheath

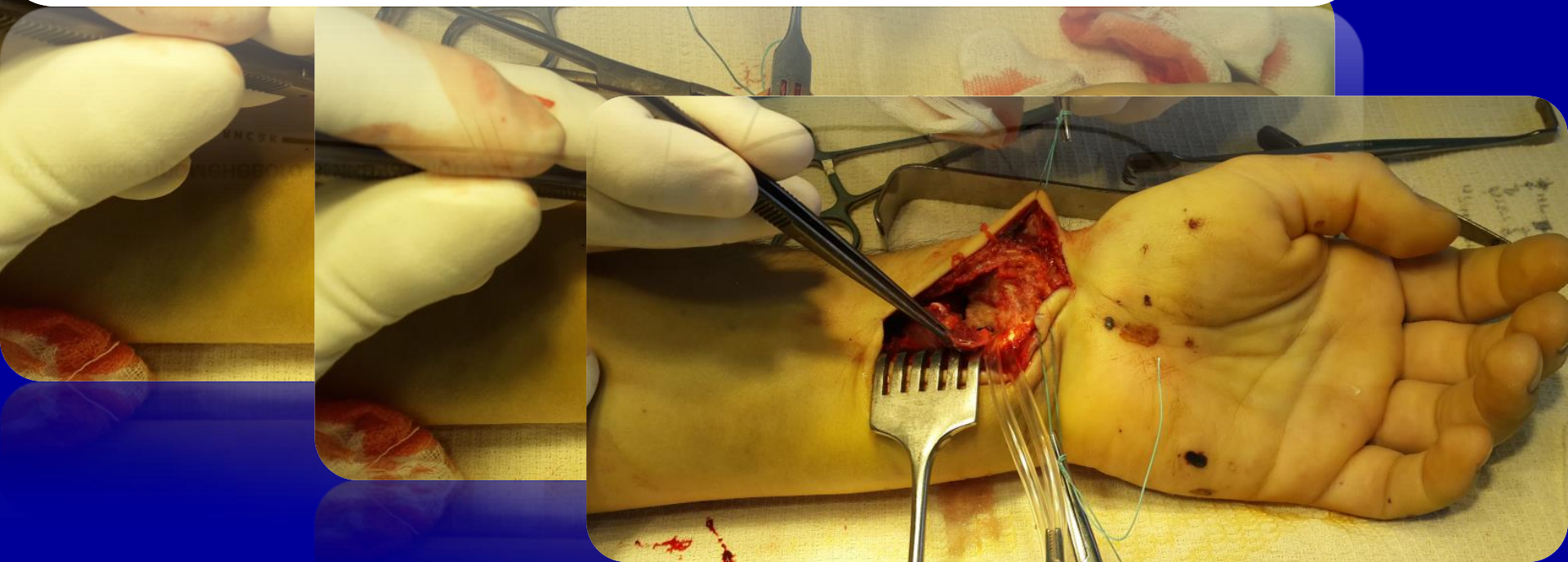
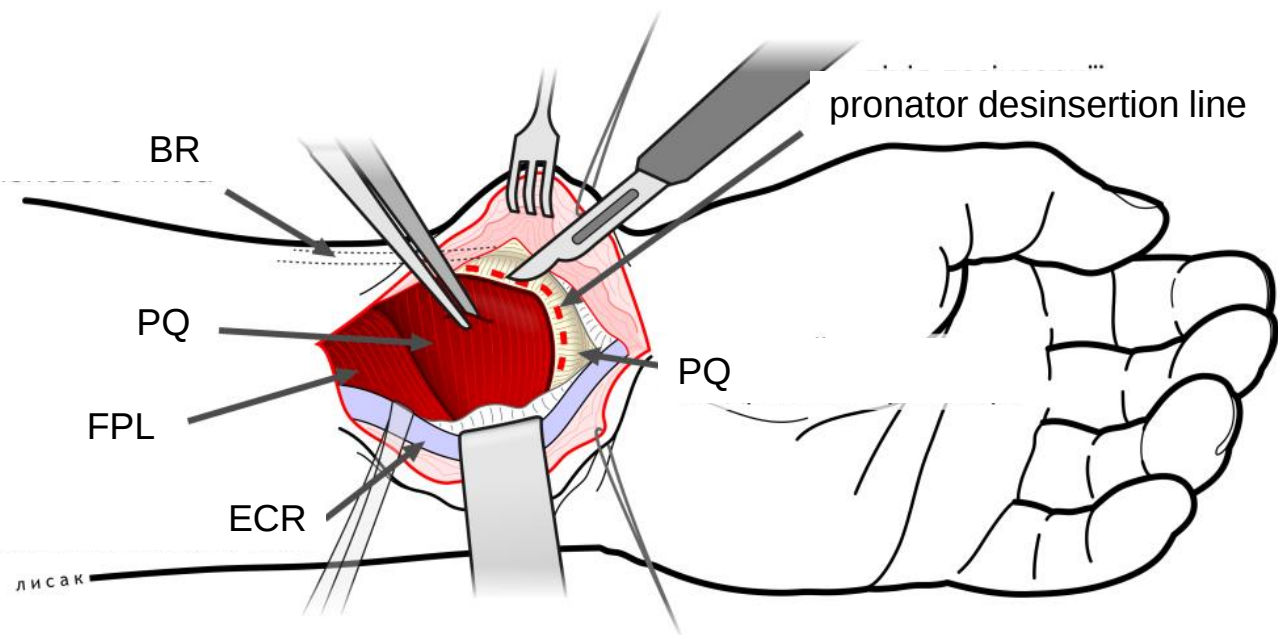
FCR

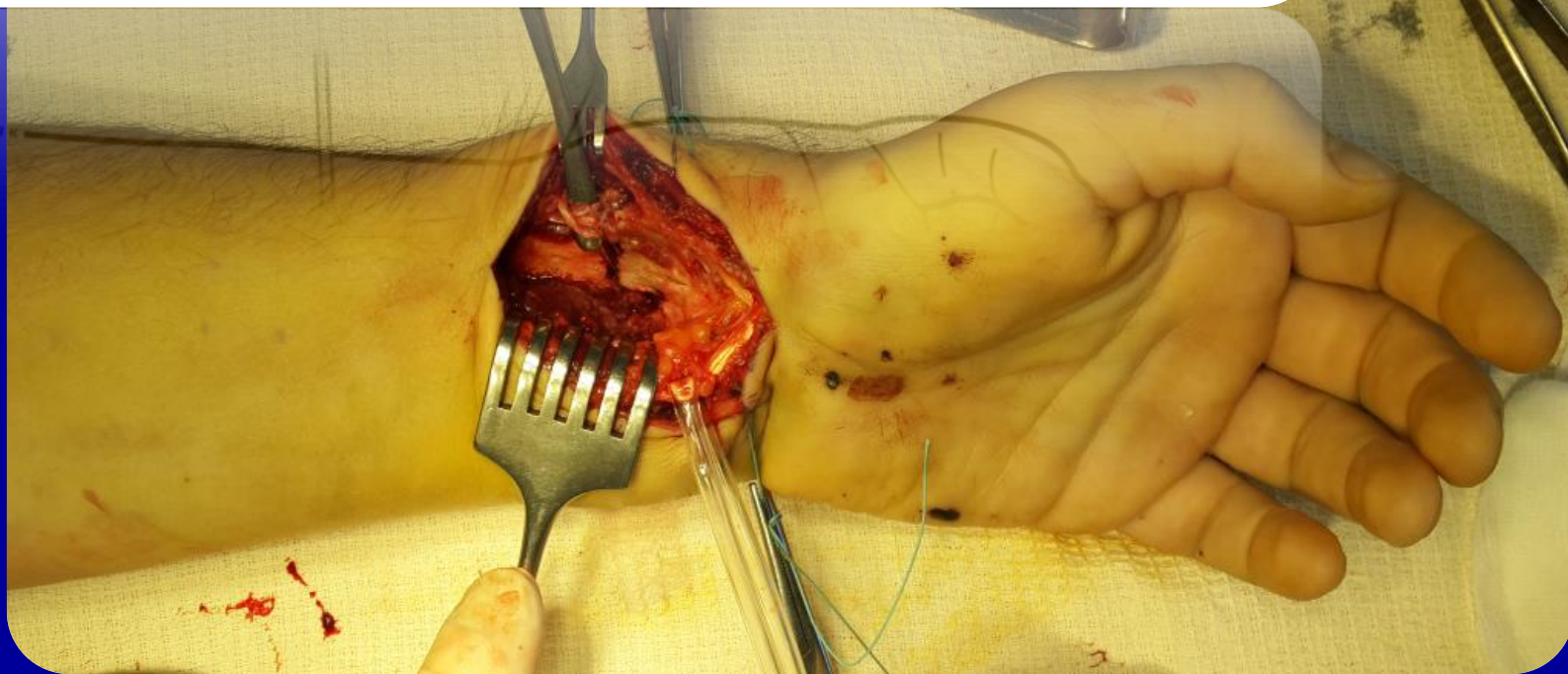
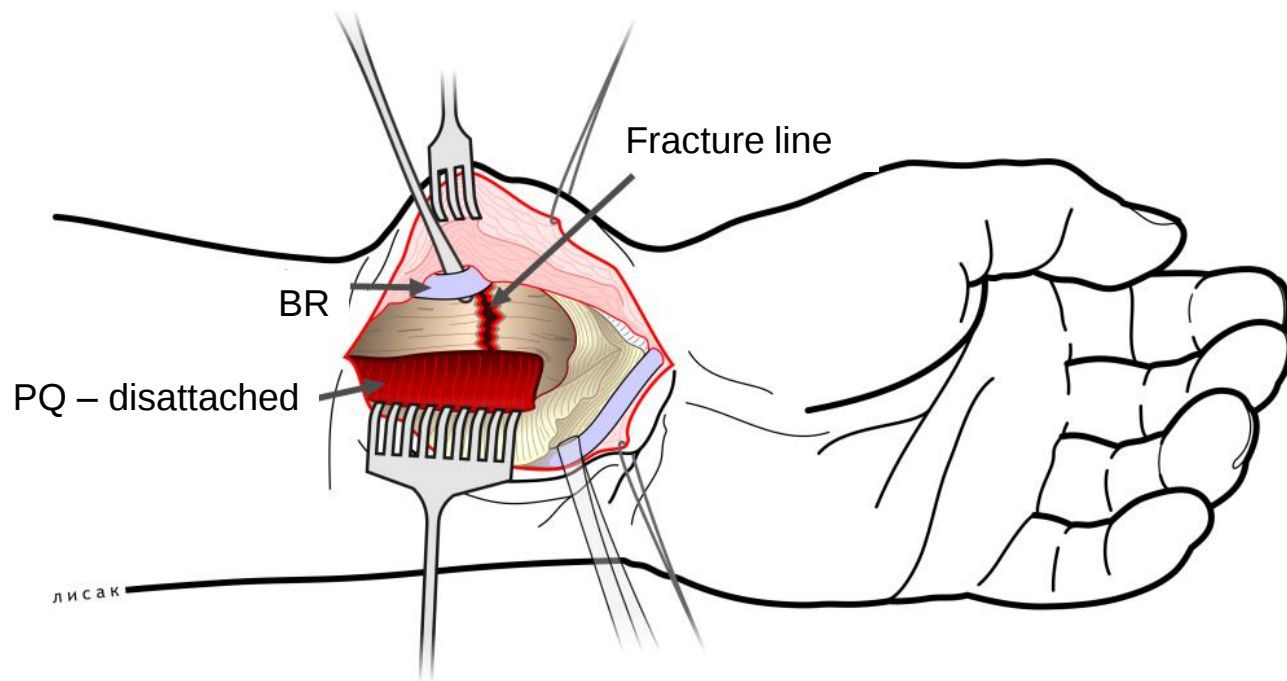
дисак

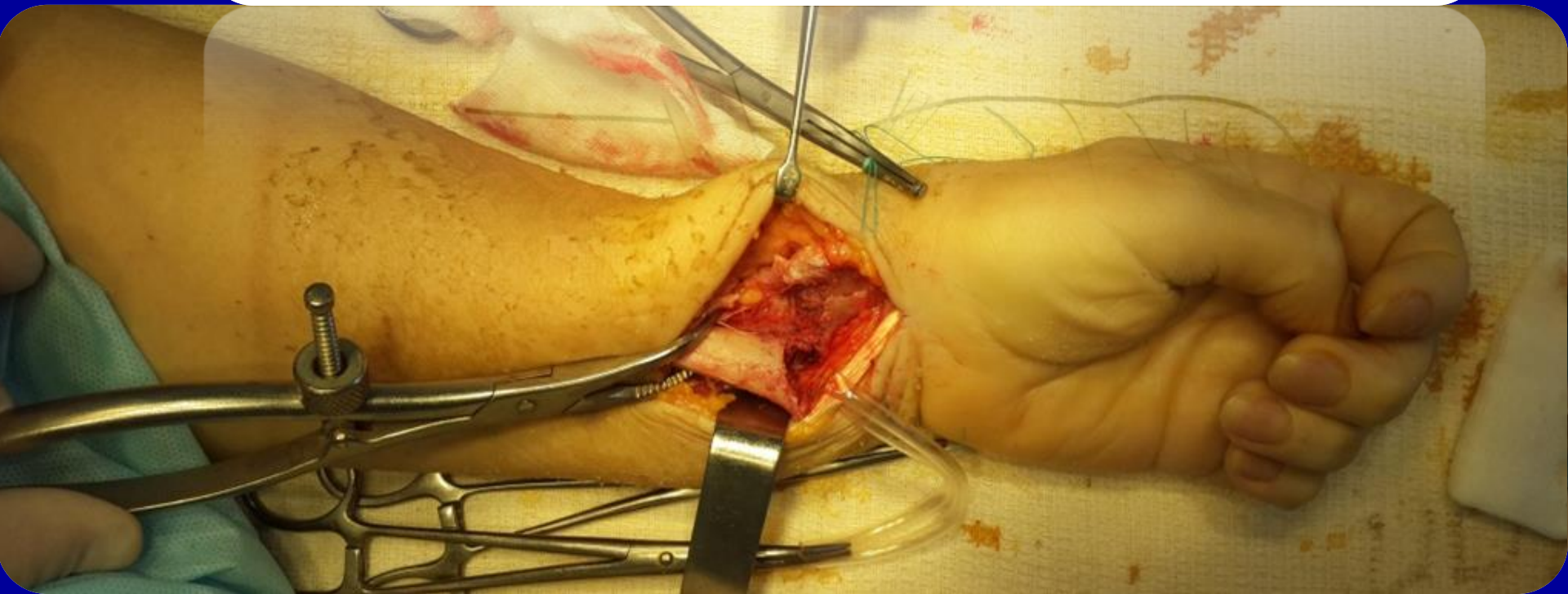
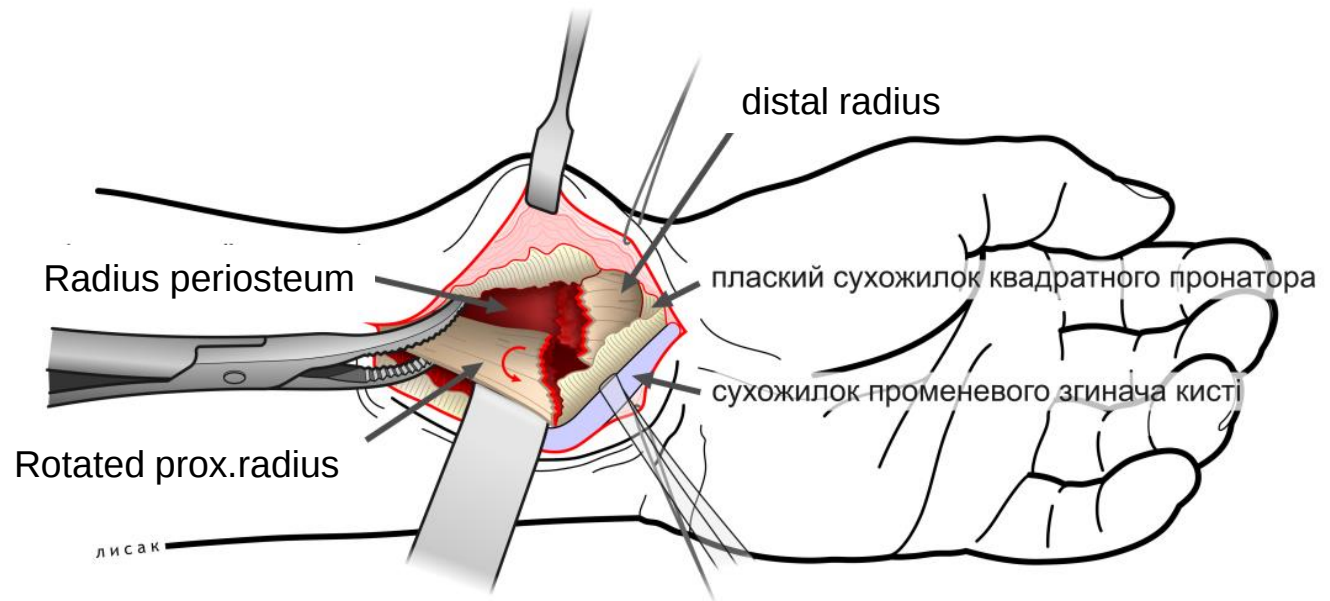


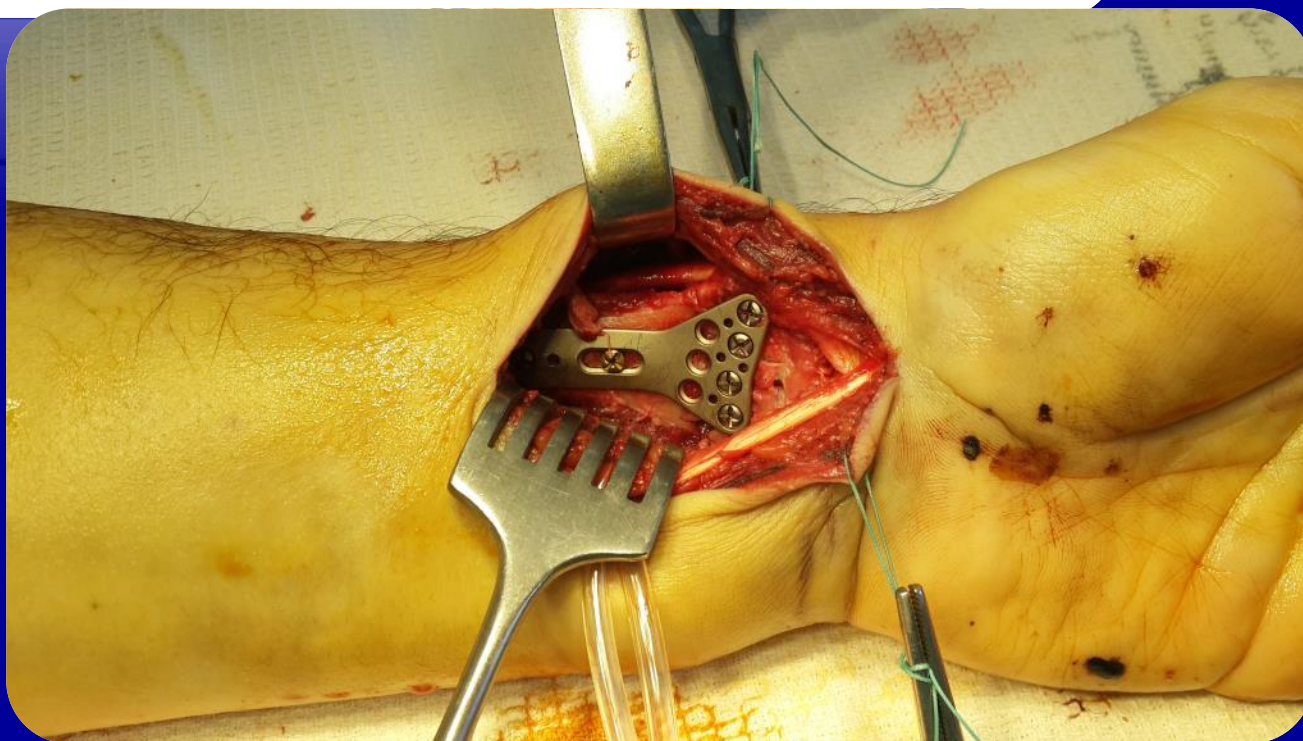
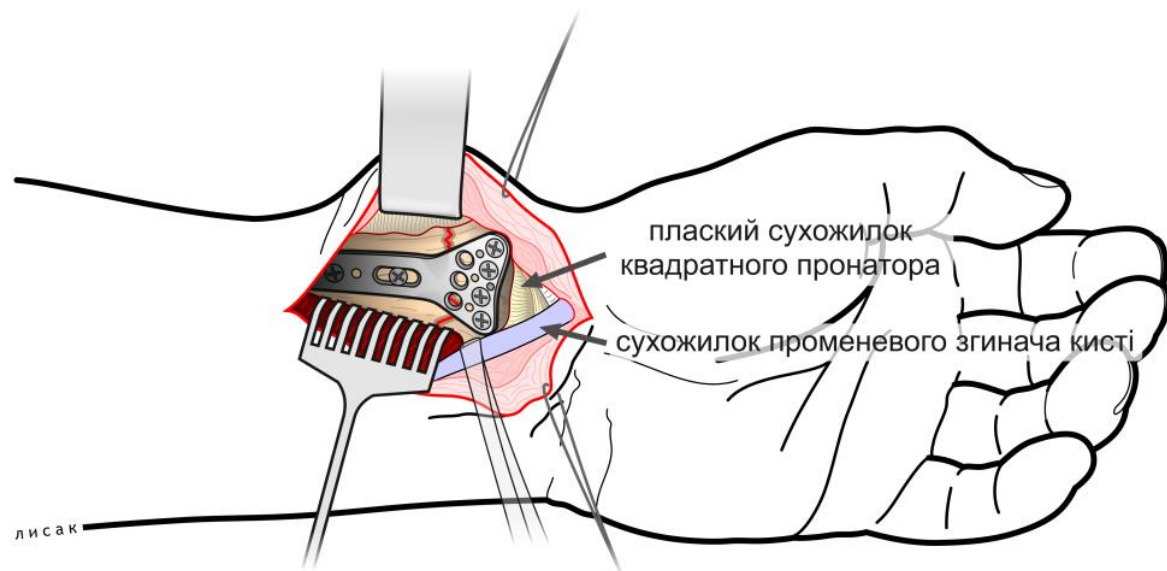


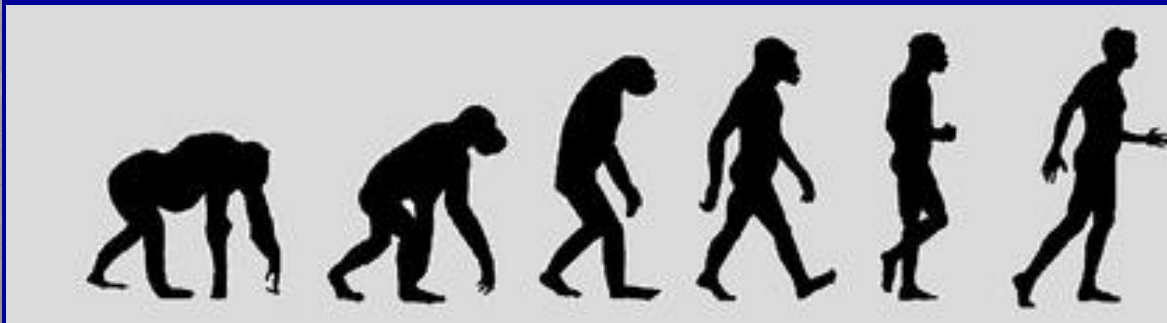
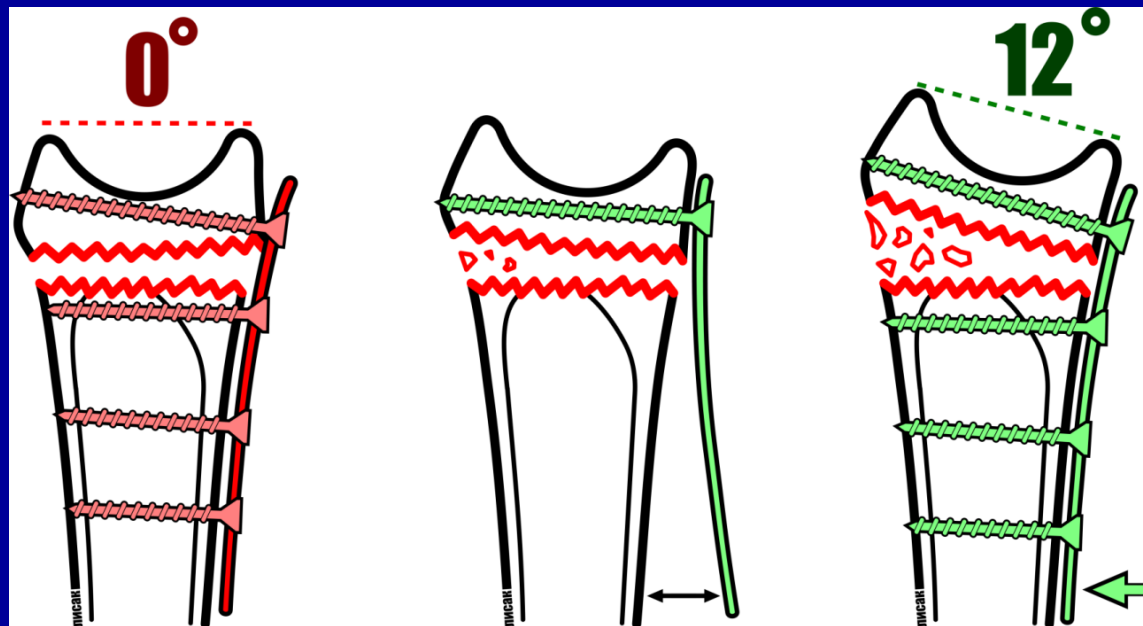
FPL distal radius disattached

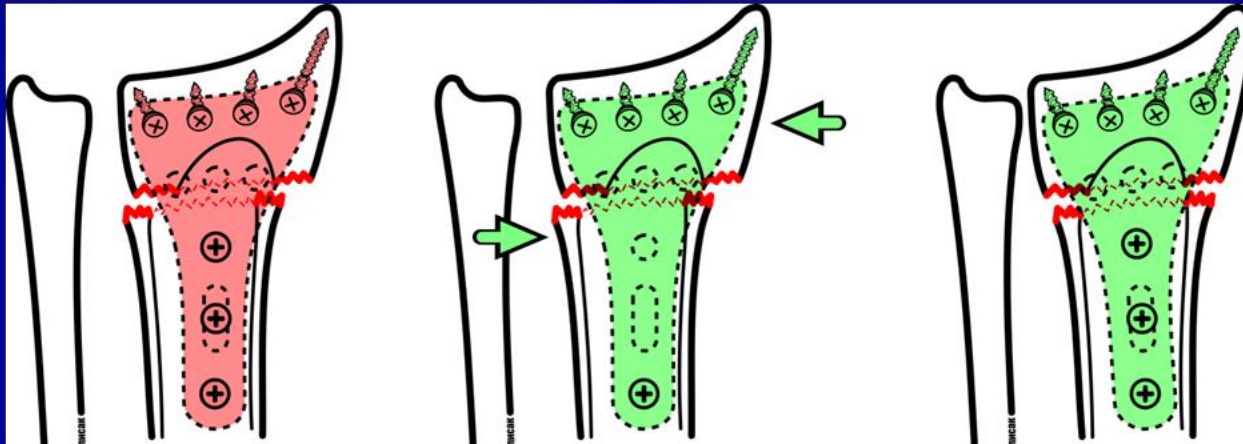
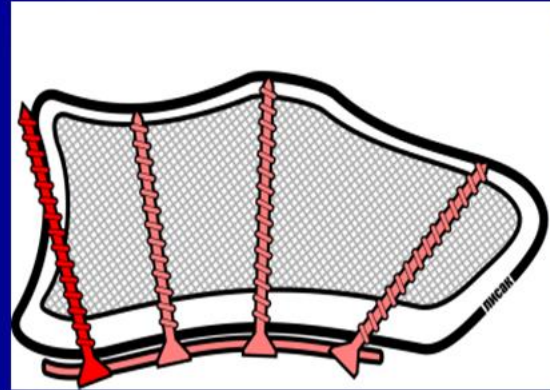
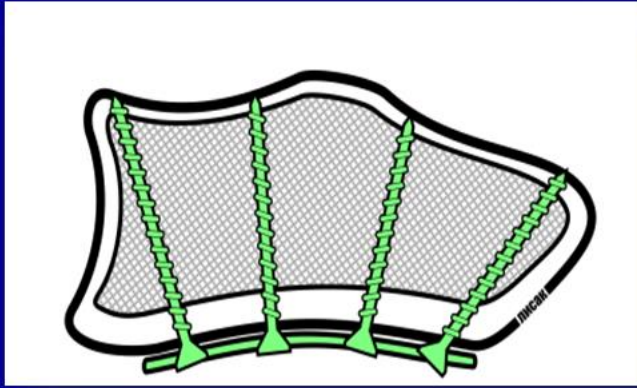
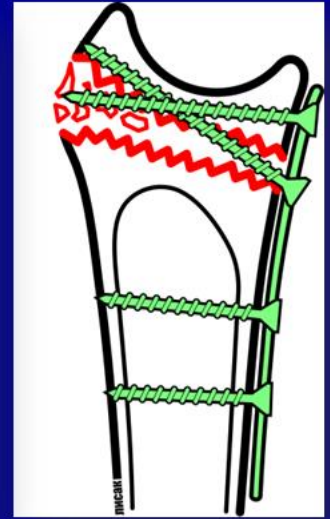
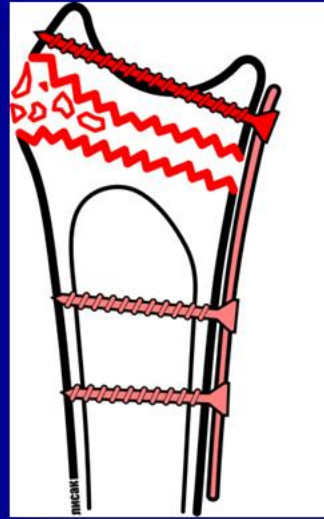
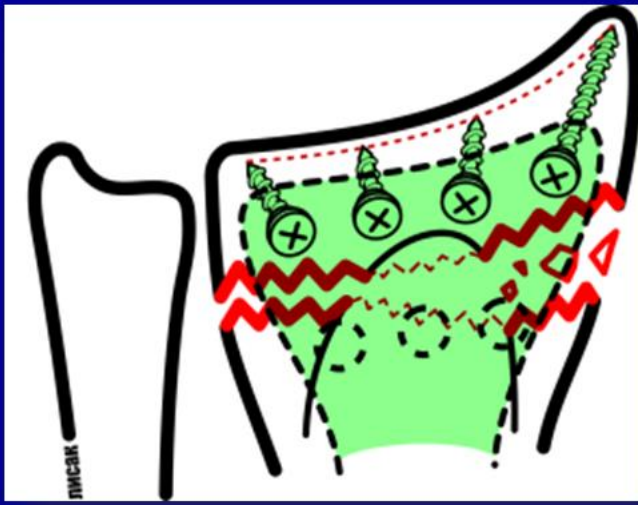


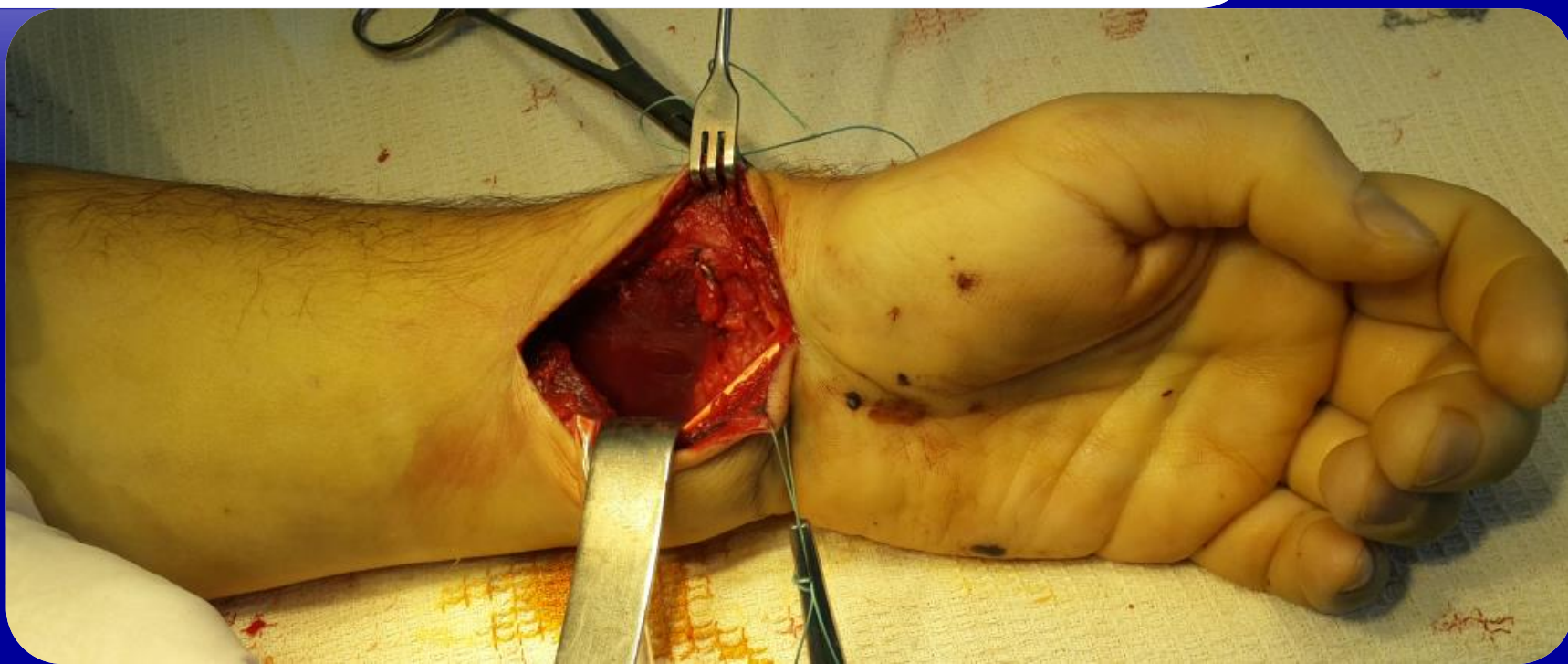
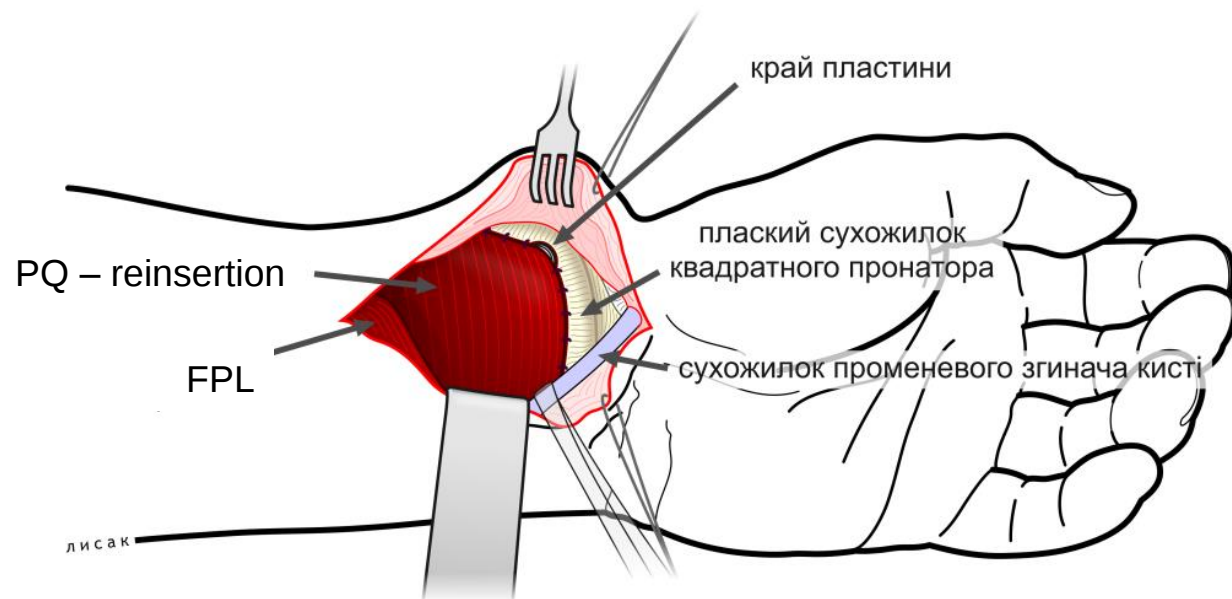










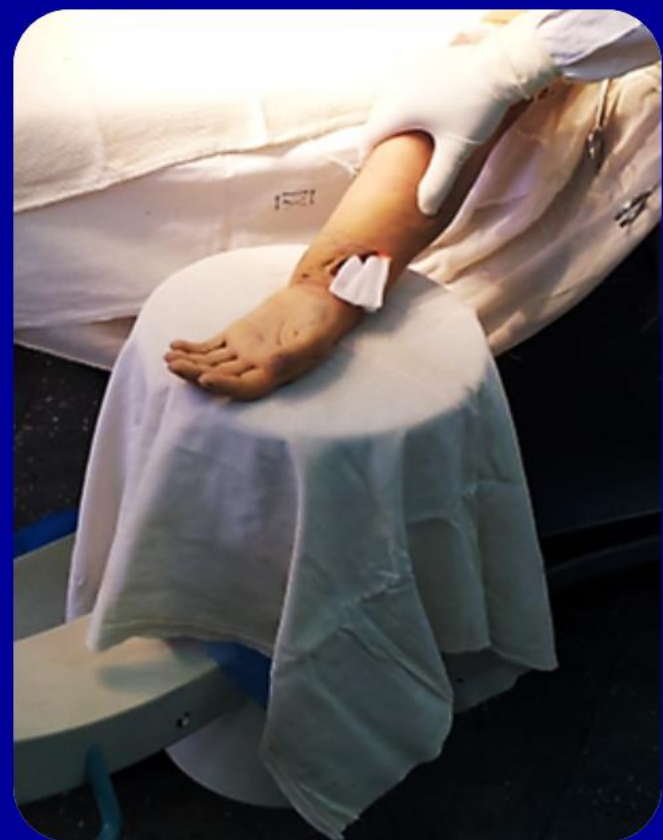


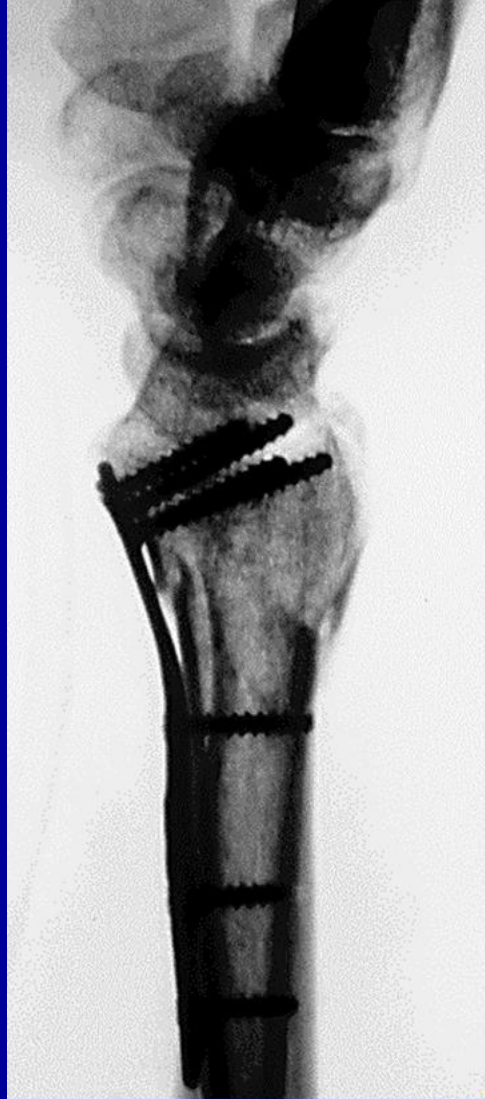
**NO
CLICKS-CLAKS!!!**





12°





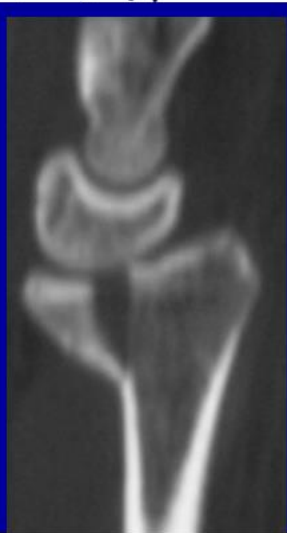
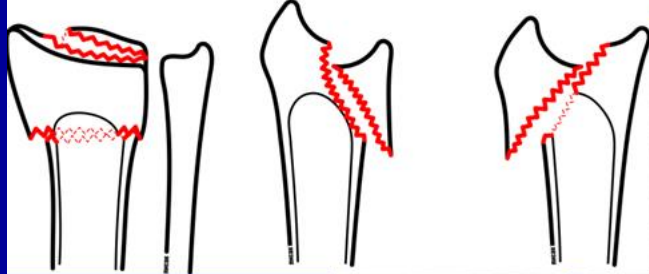
23°



Axial x-ray



**Intraarticular
Fractures
Fernandez D.
II III IV V – type**



II type



травма у побуті

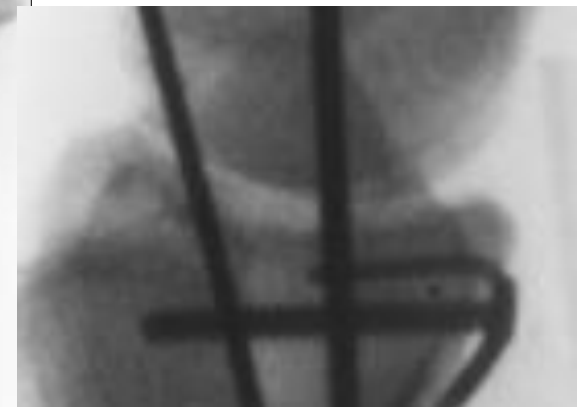
01.07.2013

ДІАГНОЗ:

Застарілий
внутрішньосуглобовий
перелом переднього
краю суглобової
западини дистального
метаепіфіза променевої
кістки зі зміщенням та
підвивих кисті допереду. .

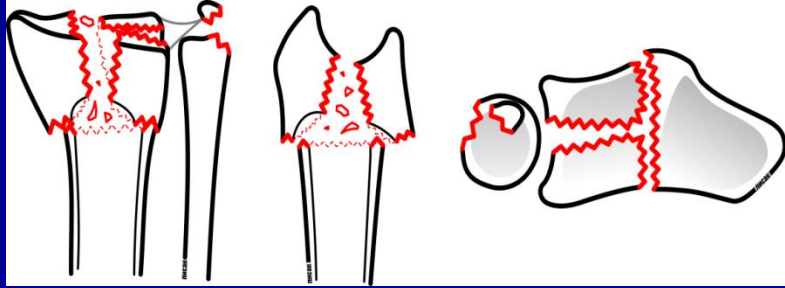
ОПЕРАЦІЯ: 16.09.2013

1) Мобілізація, усунення
підвивиху кистьового
суглоба з фіксацією
спицями, відкрита
репозиція переднього
фрагменту фасетичного
променевої кістки
мініпластиною та
гвинтами.



044

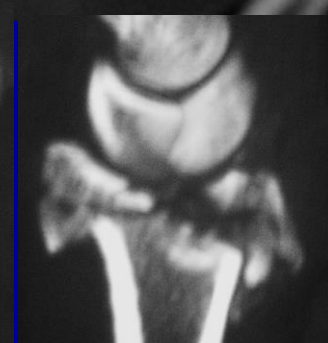
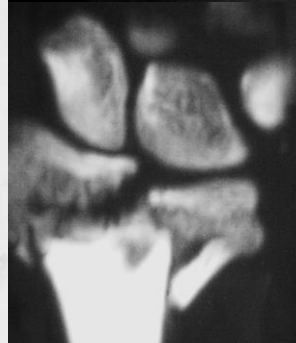
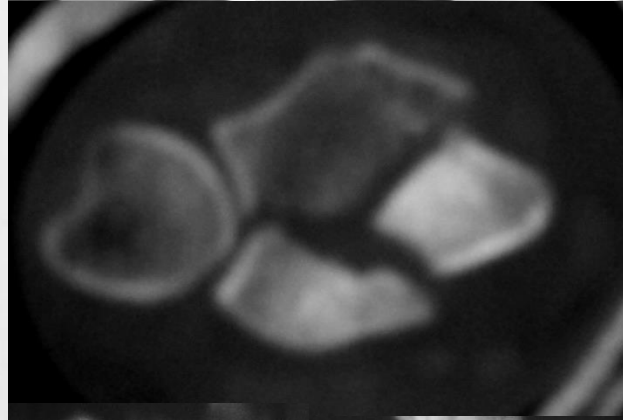
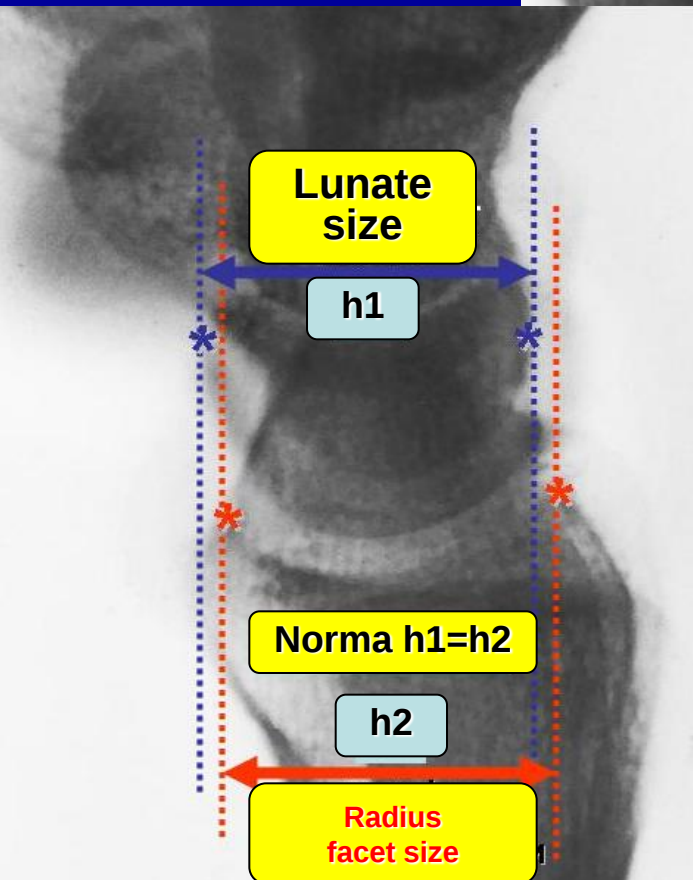
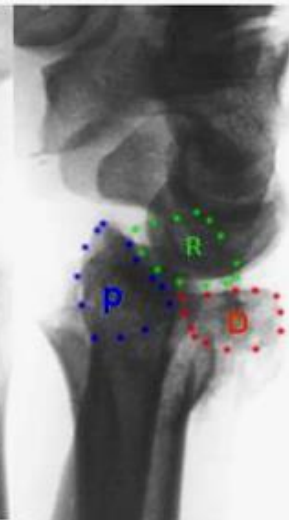
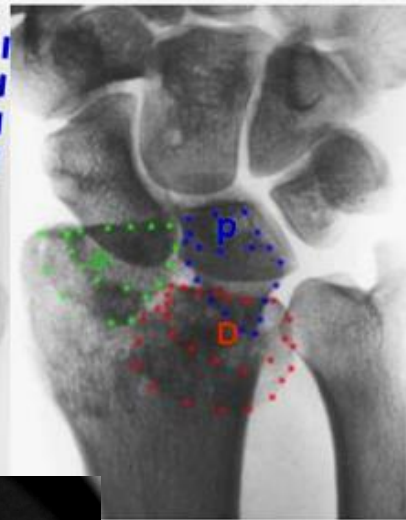
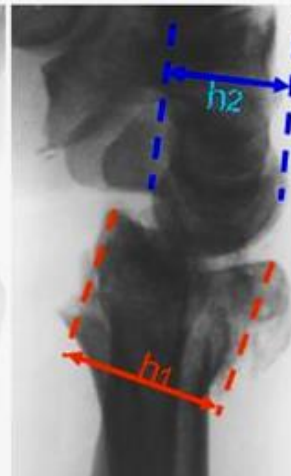
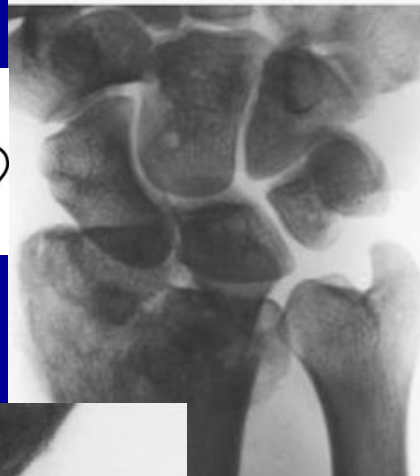
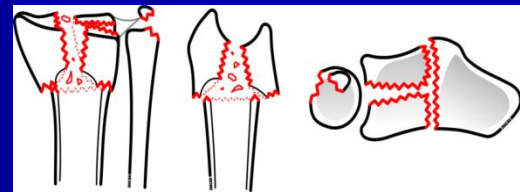
X-ray diagnostic Fernandez III- type.



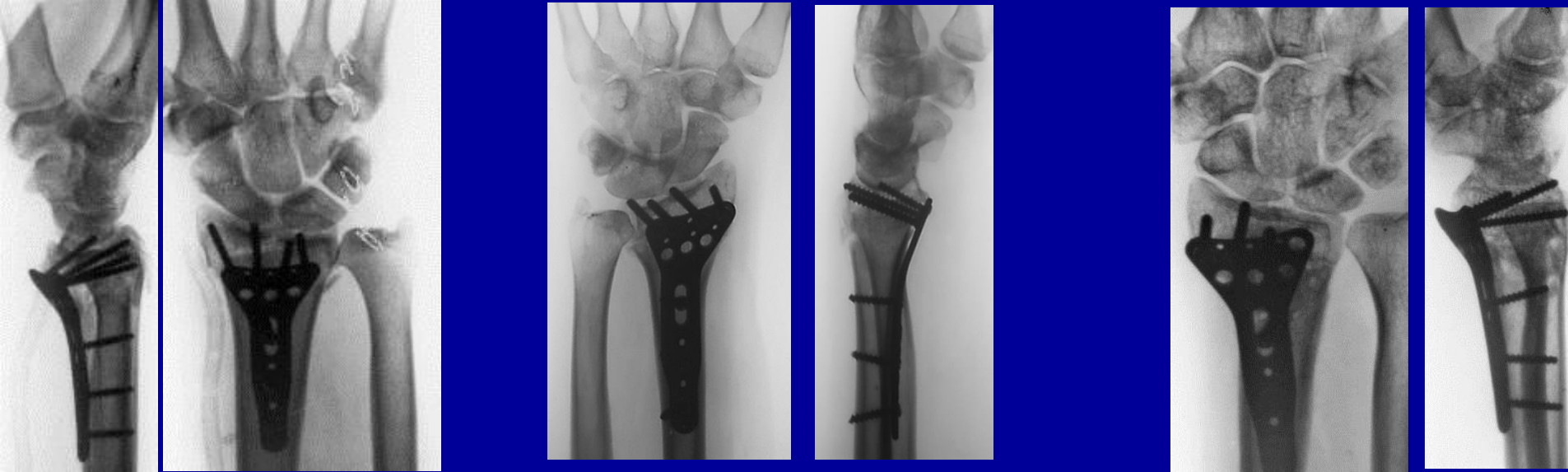
Not simple!
reposition – problematic!

Fernandez III fracture

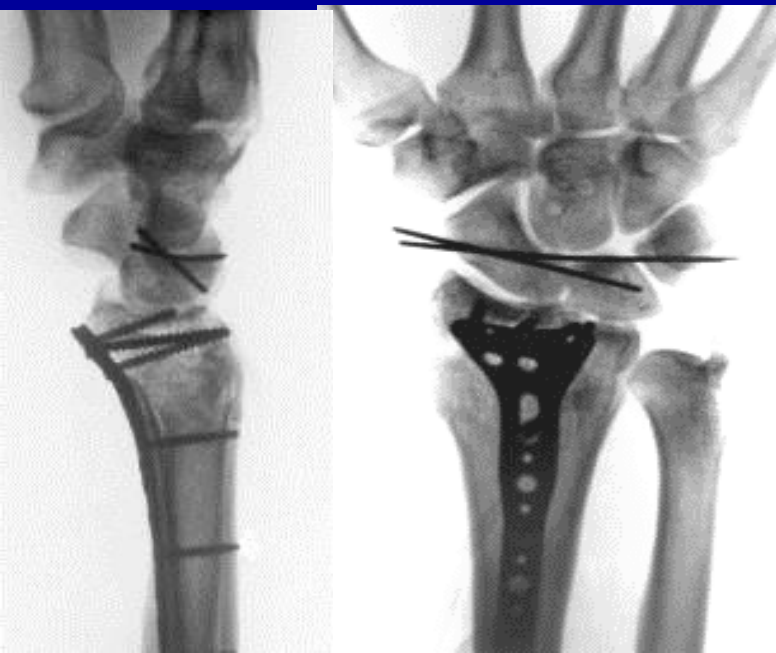
X-ray anatomy



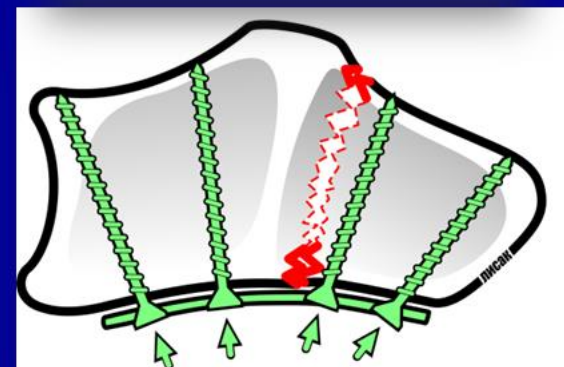
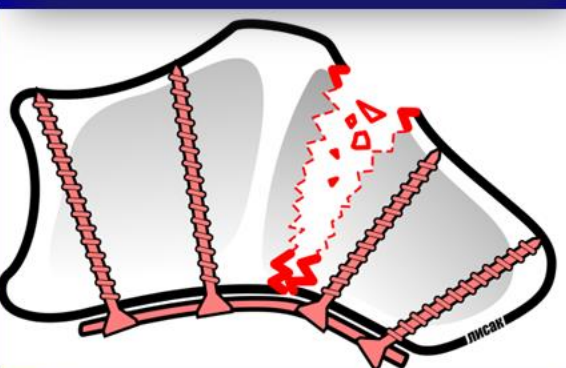
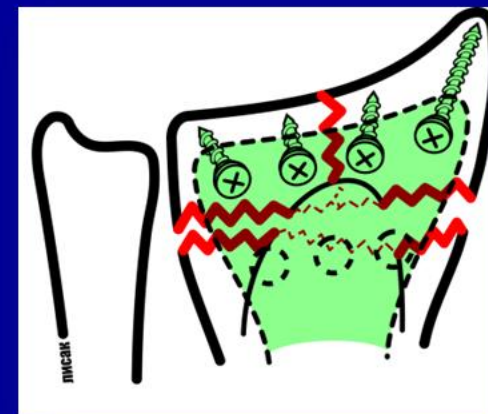
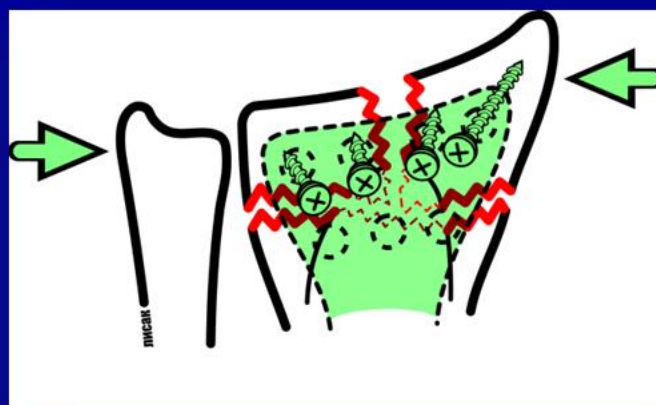
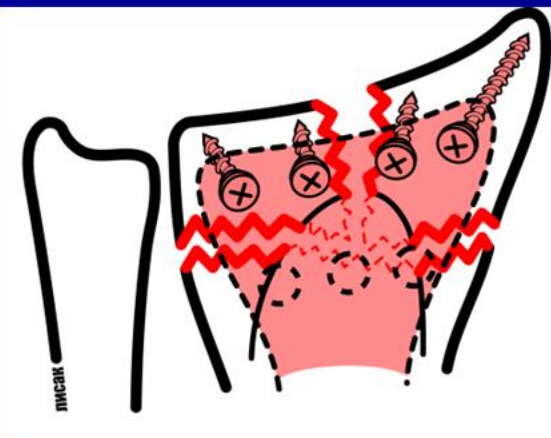
Important sagittal fracture line!!



Angle stability volar plates

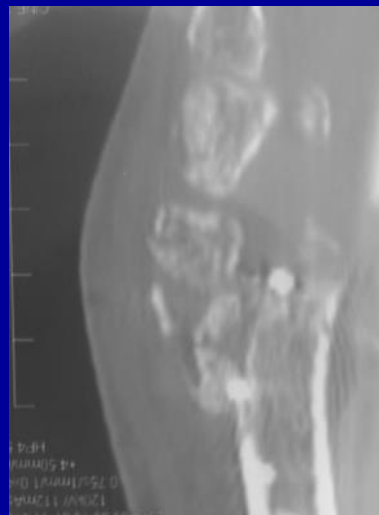
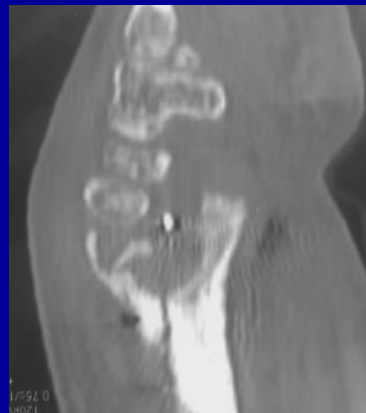
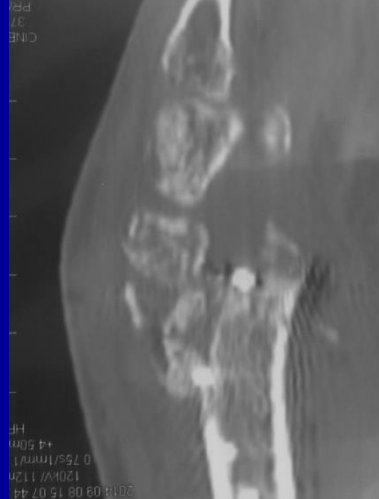
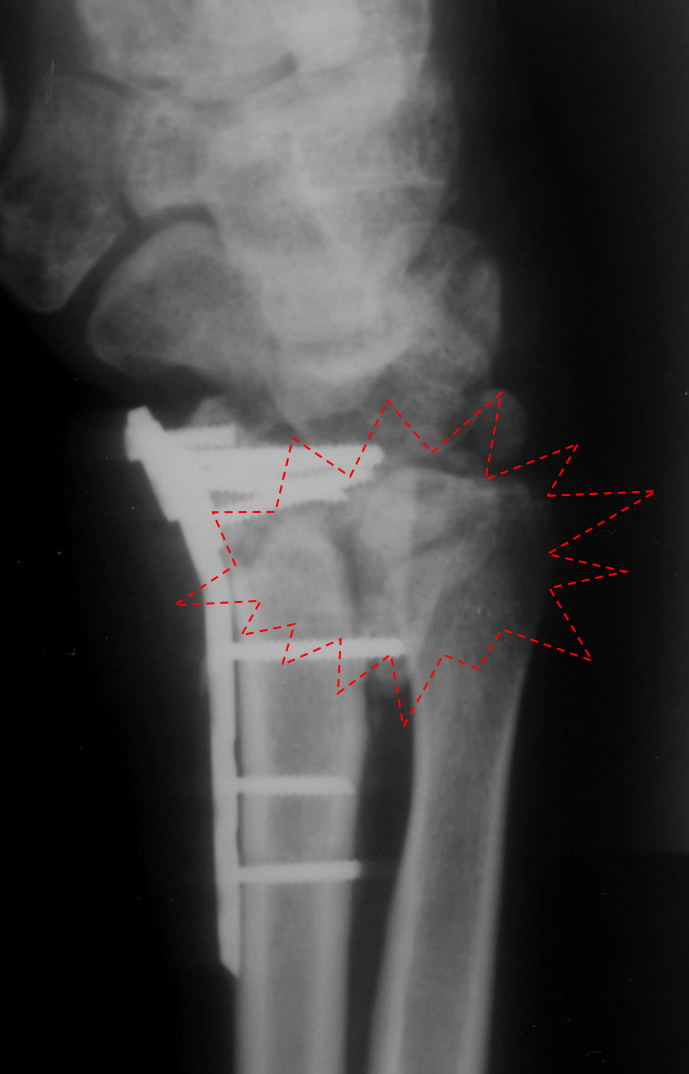


- Approaches! (safe, smart, combine 1-2-3)
- Volar fixation
- Anatomical plates
- Screw specializations (peg, lag, compressive)
- Early mobilization



**Fernandez III
fracture
Gap reduction**

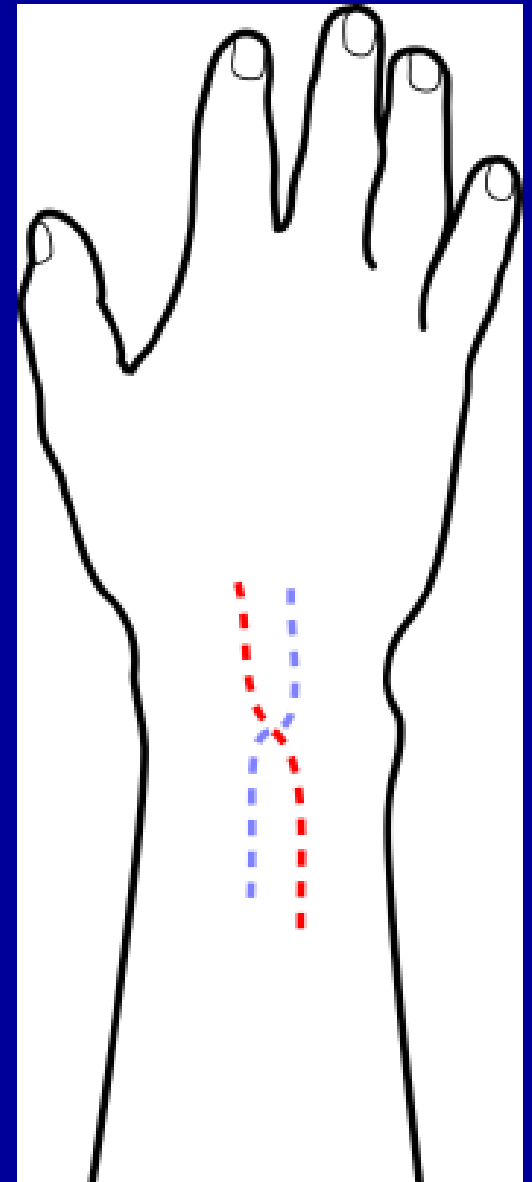
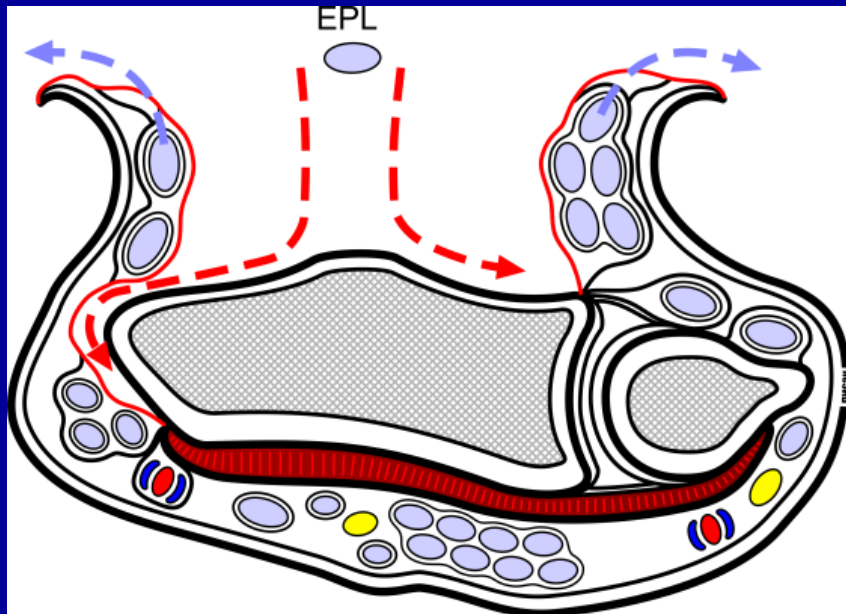
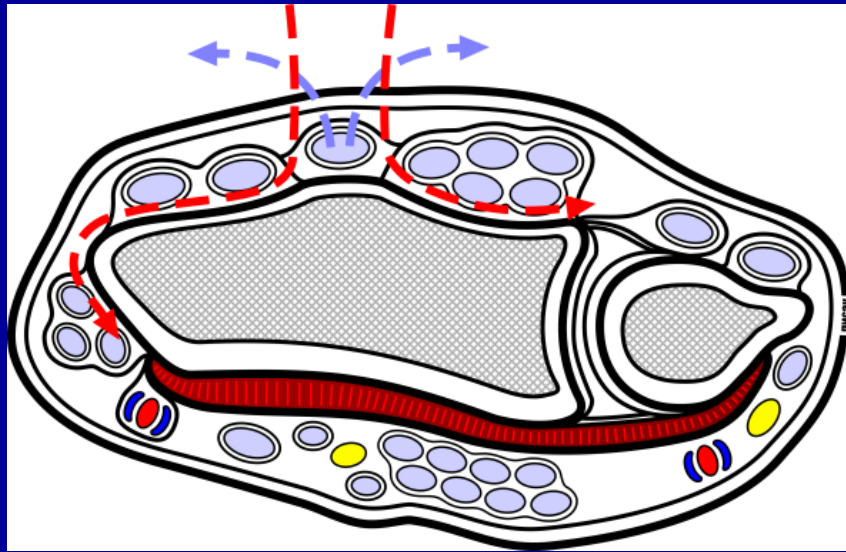


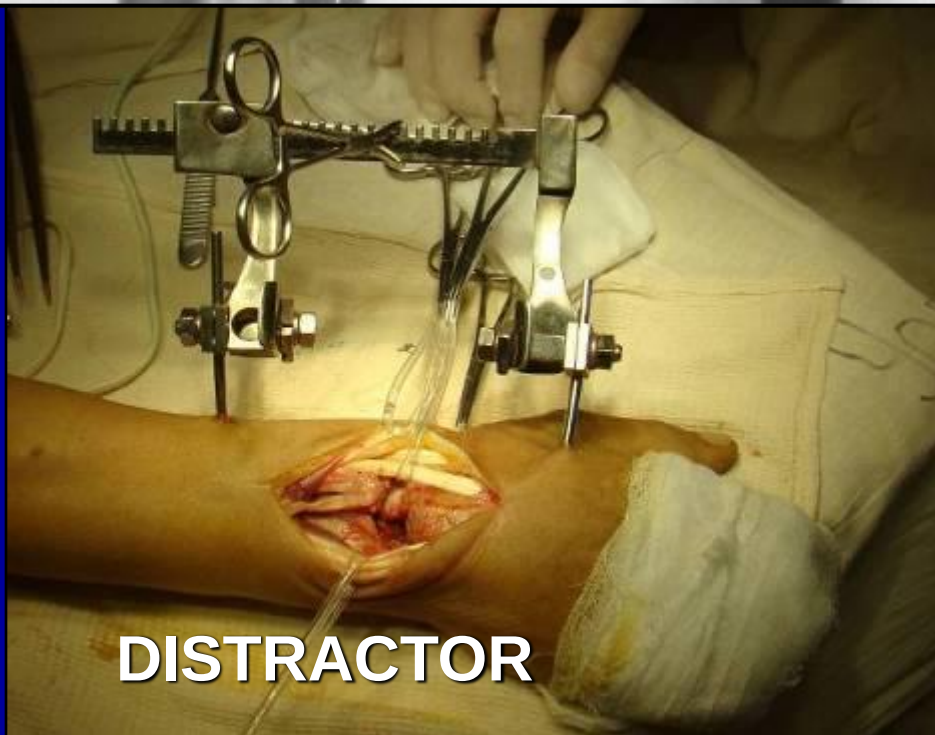


How to deal with dorsal fragments

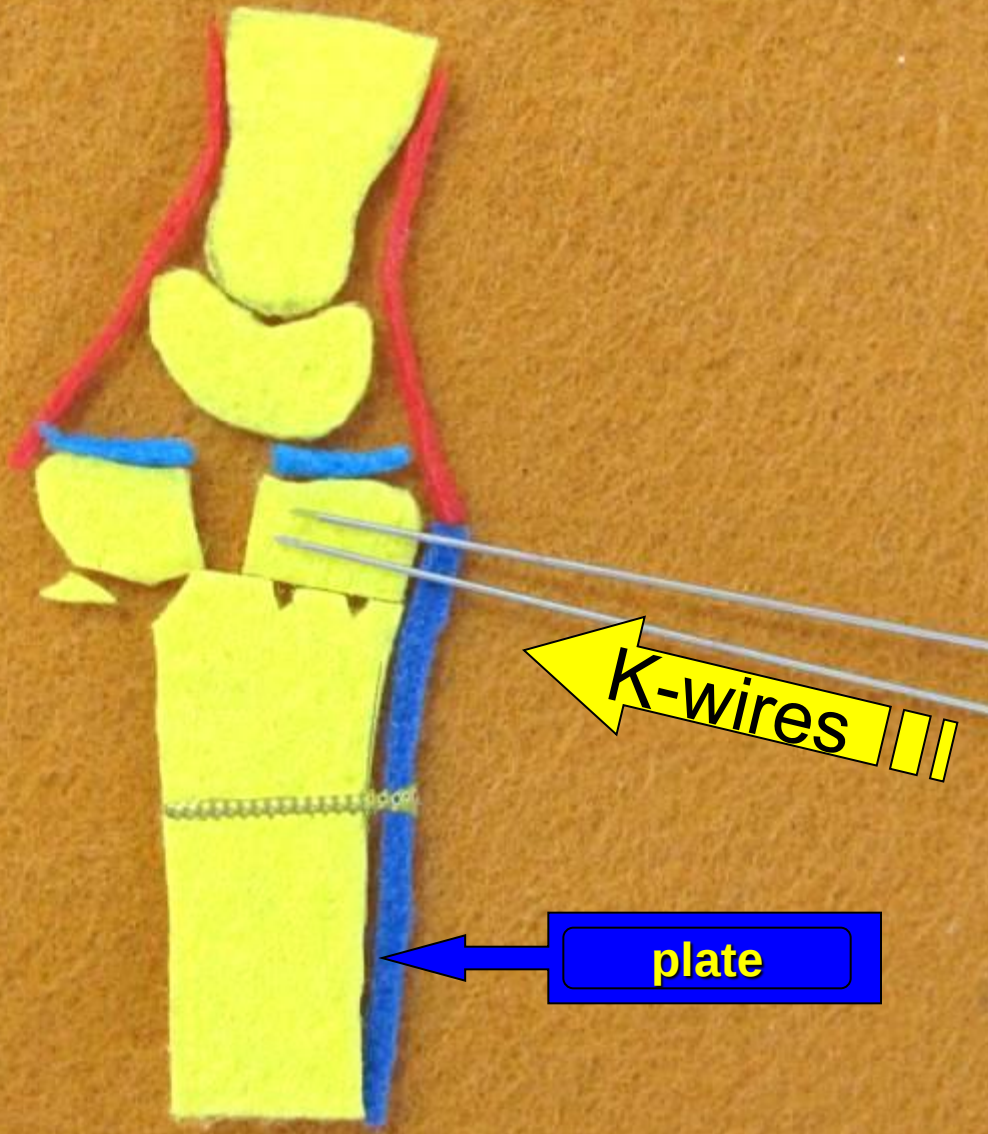


Dorsal approach





Lets try without arthrotomy!





Surgeon's thumb



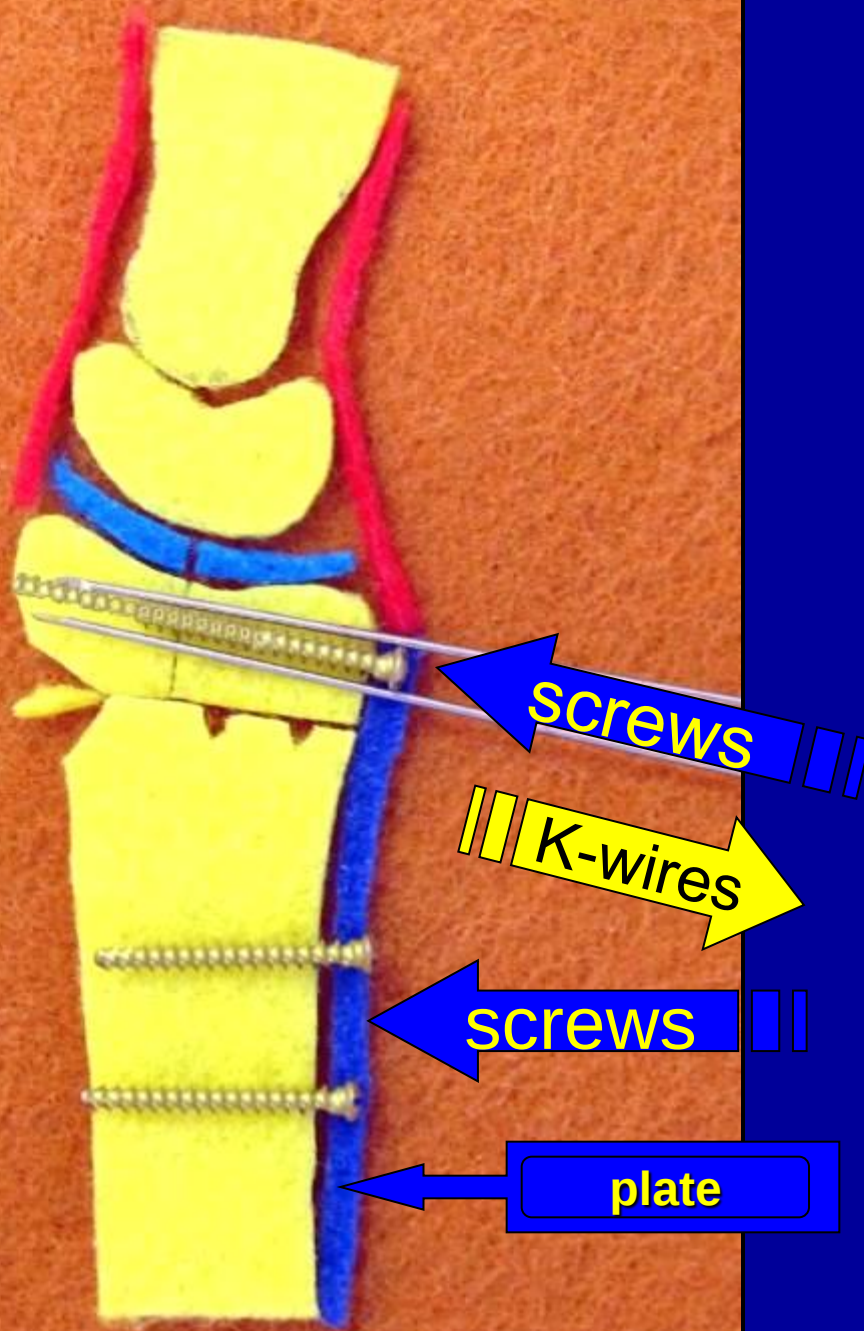
K-wires



plate

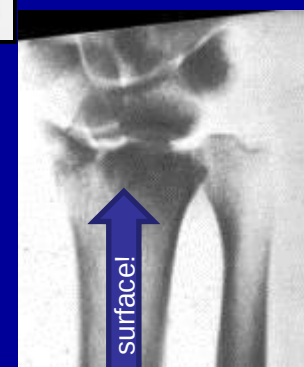
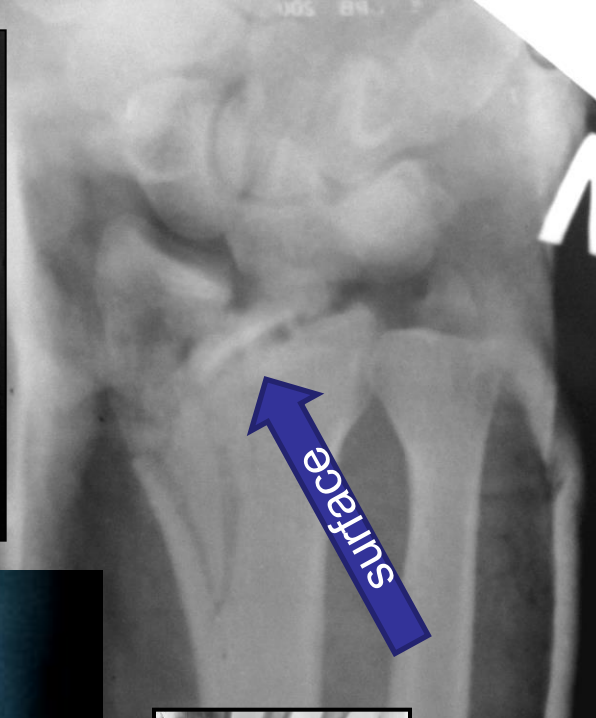
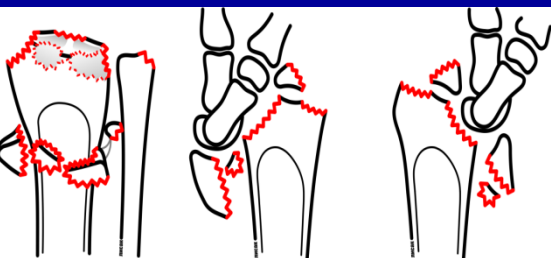




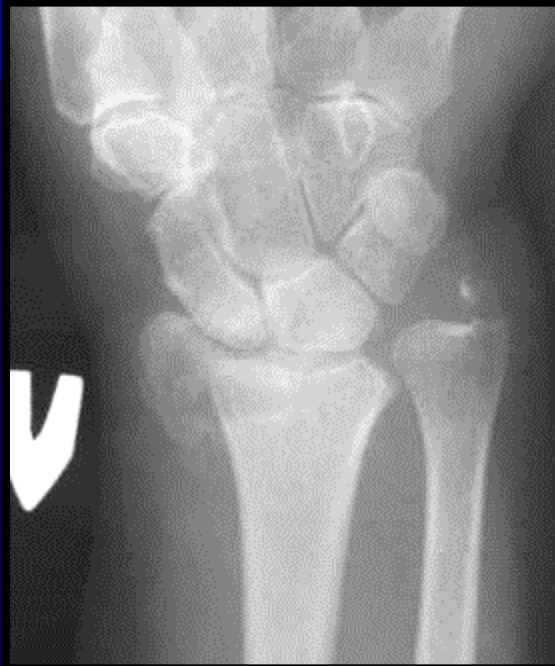


IV type

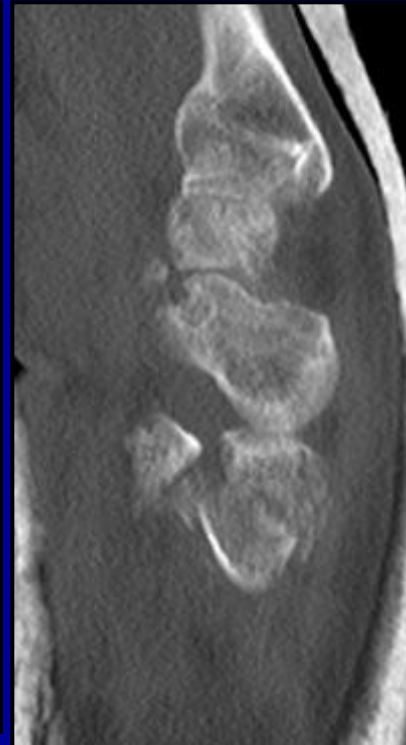
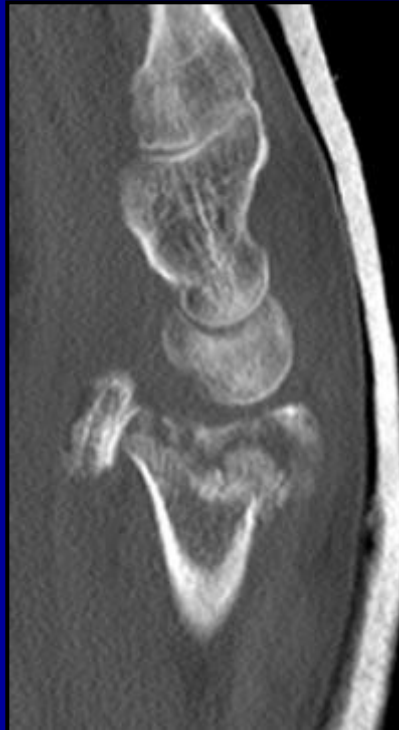
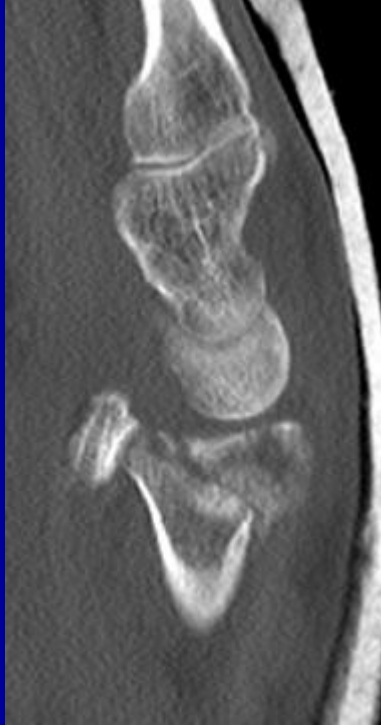
Fernandez D.

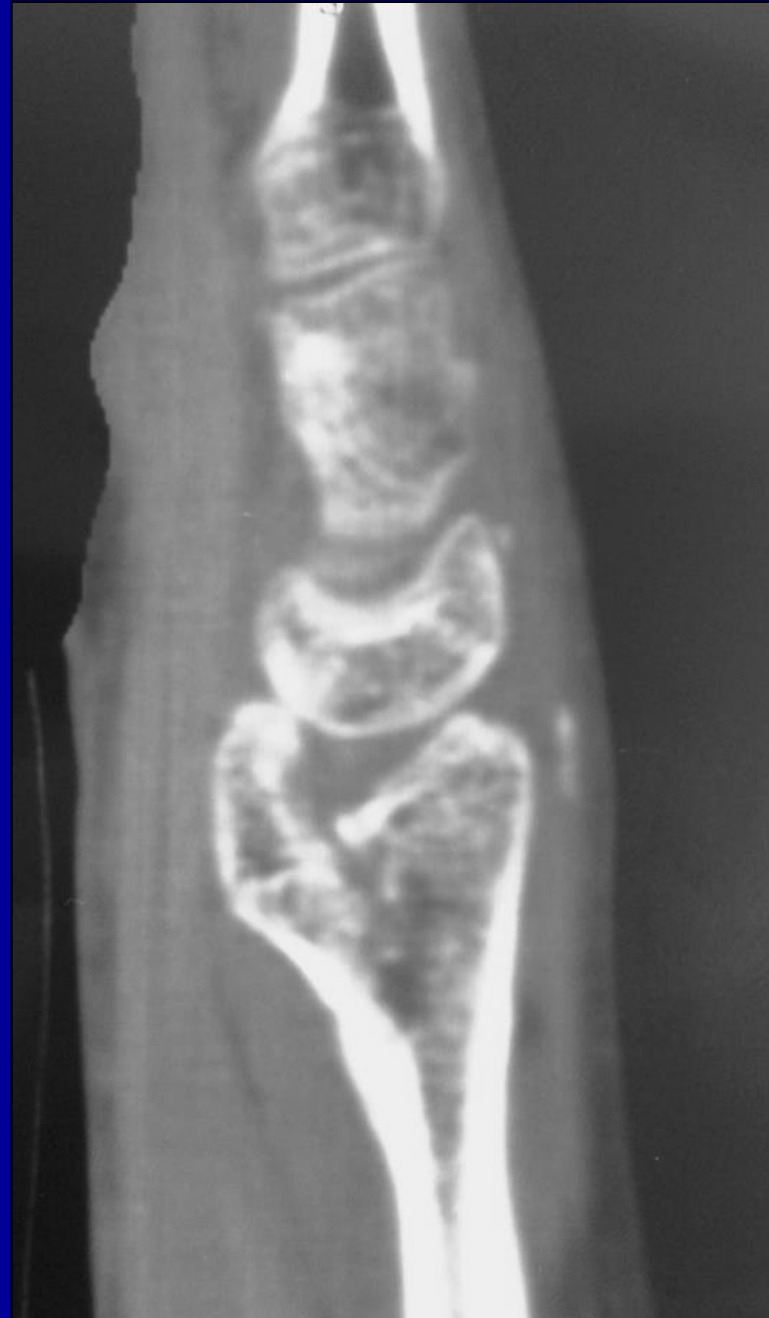
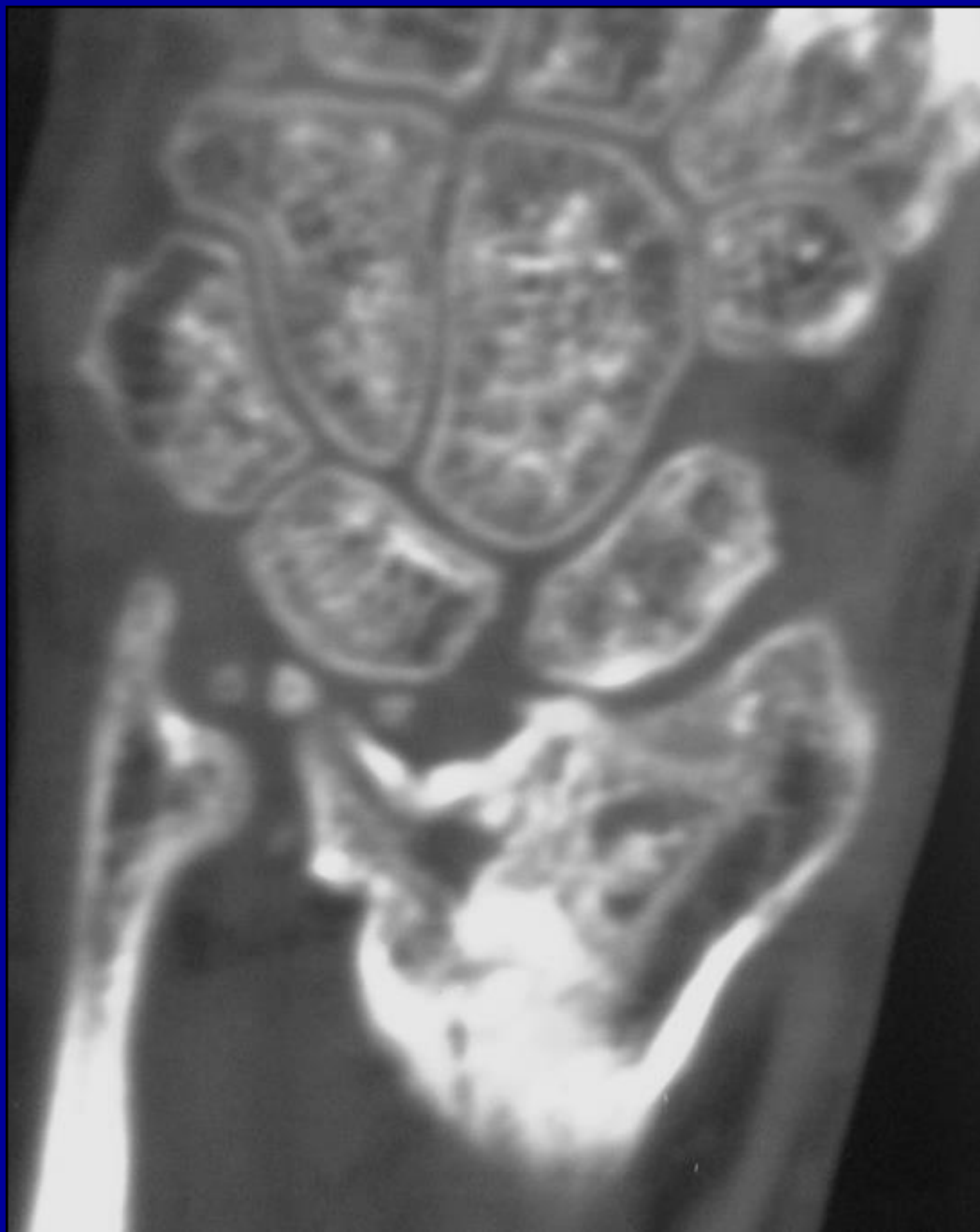


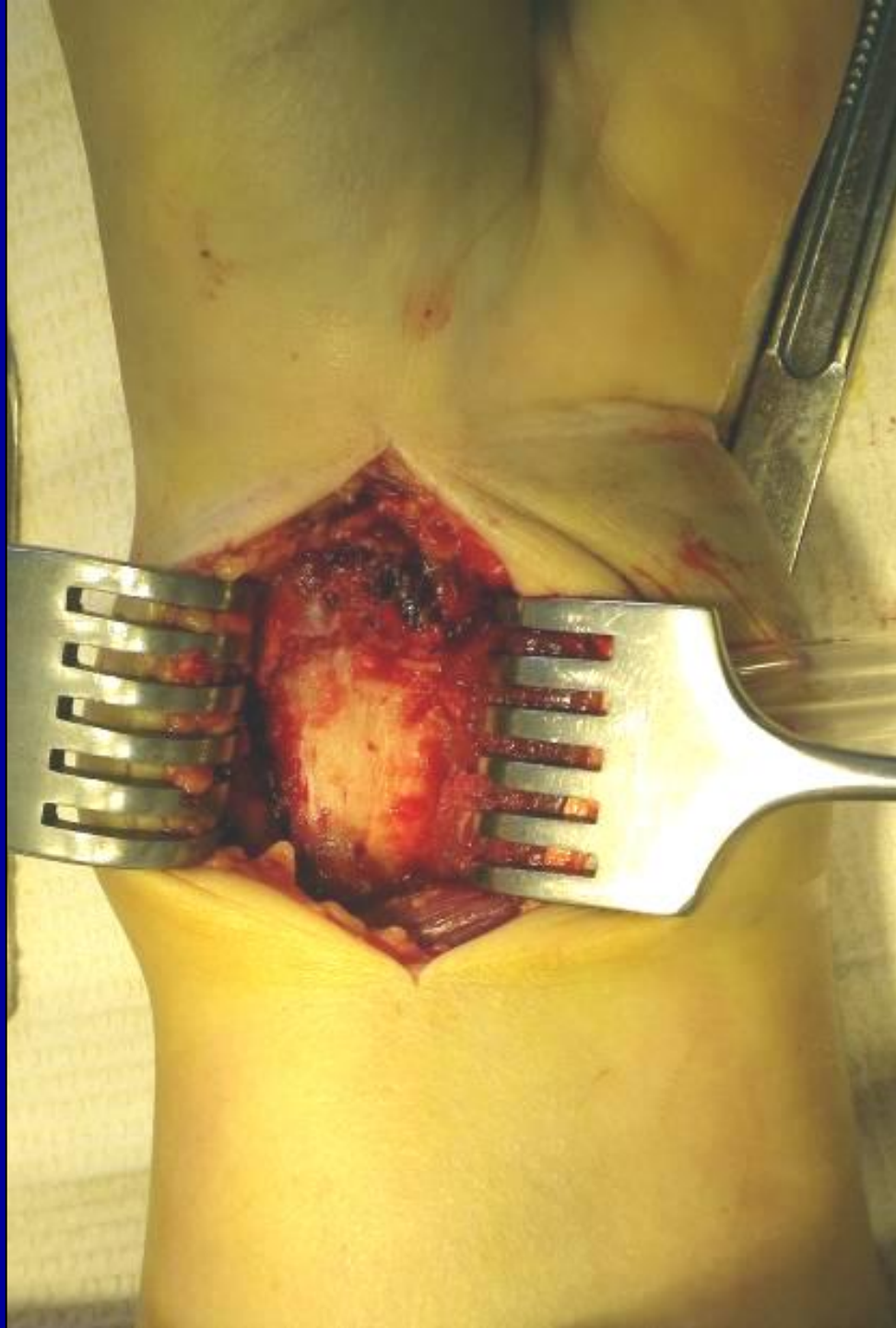
**F. 44. FOUSH
6 h.**

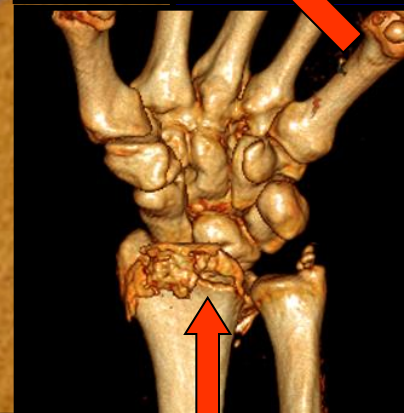
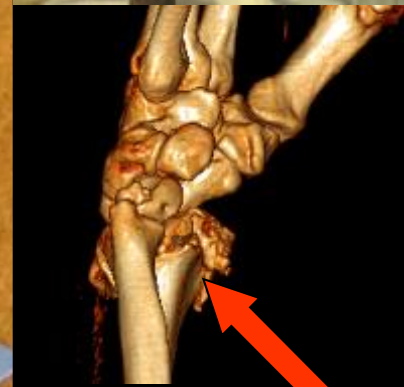
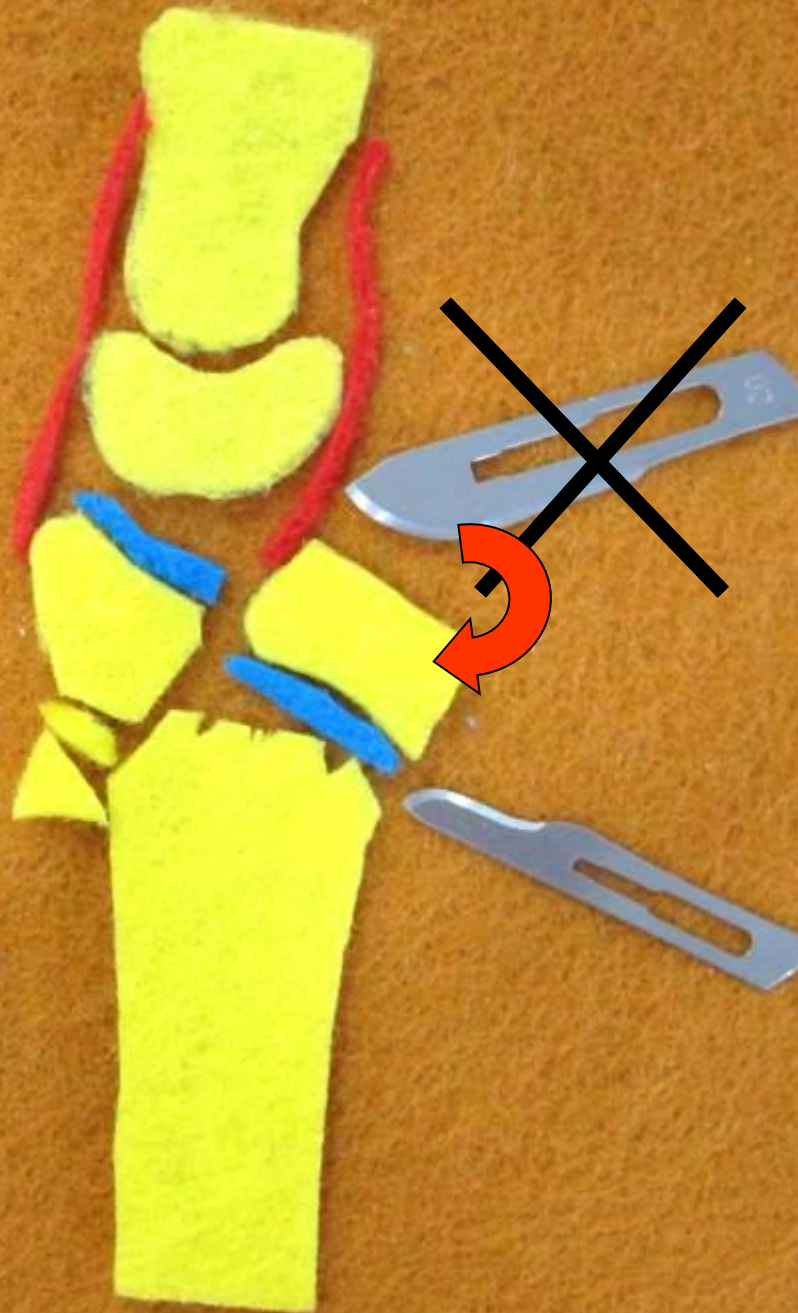


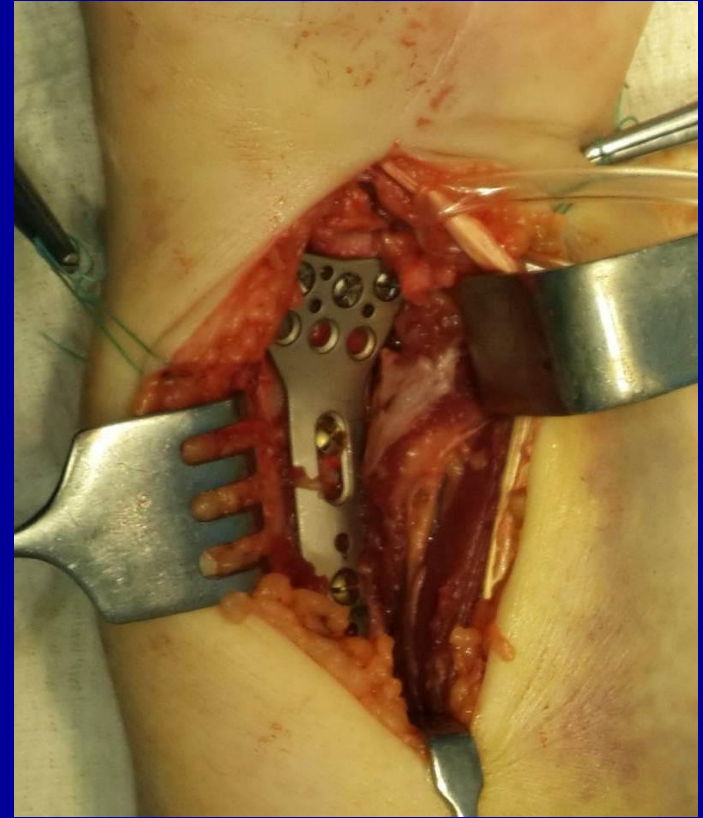
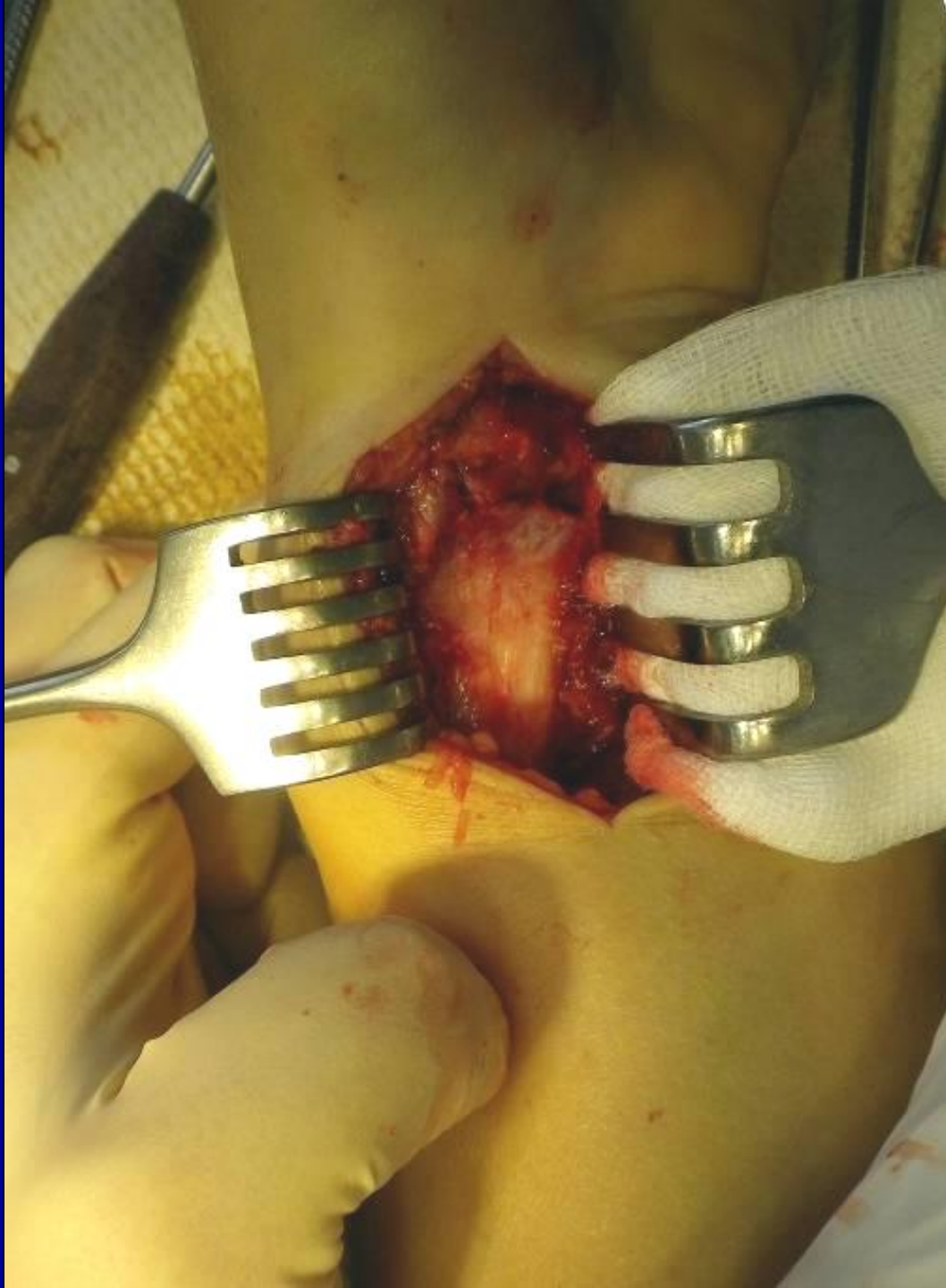
**Close
Reduction
OK?
acceptable?**







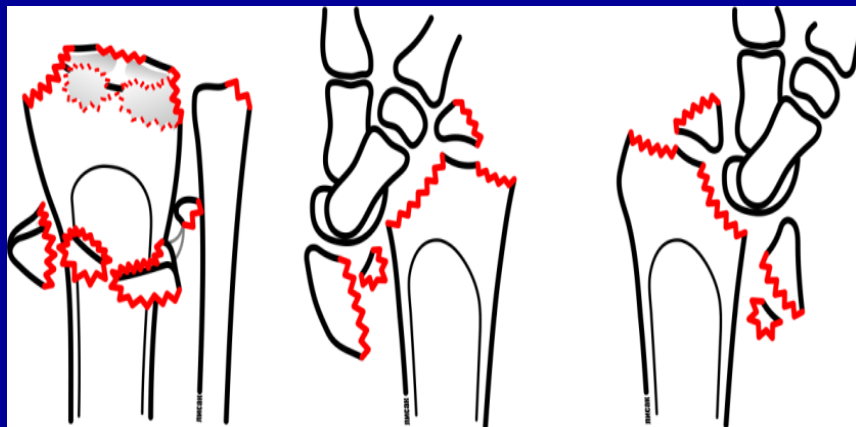






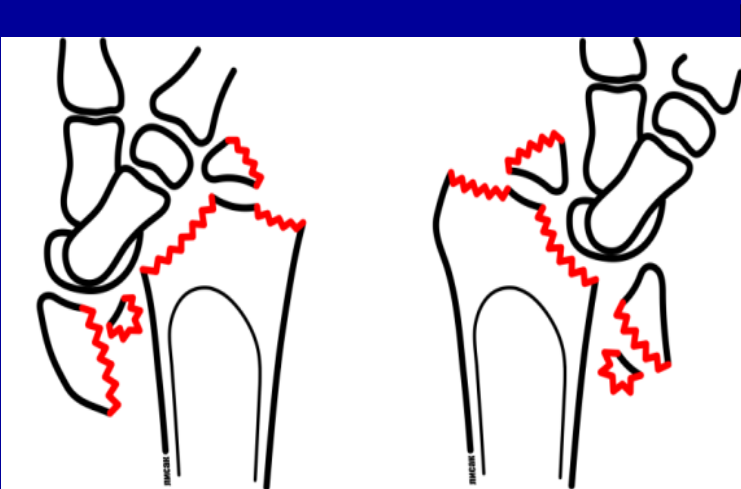
IV type

Fernandez D.

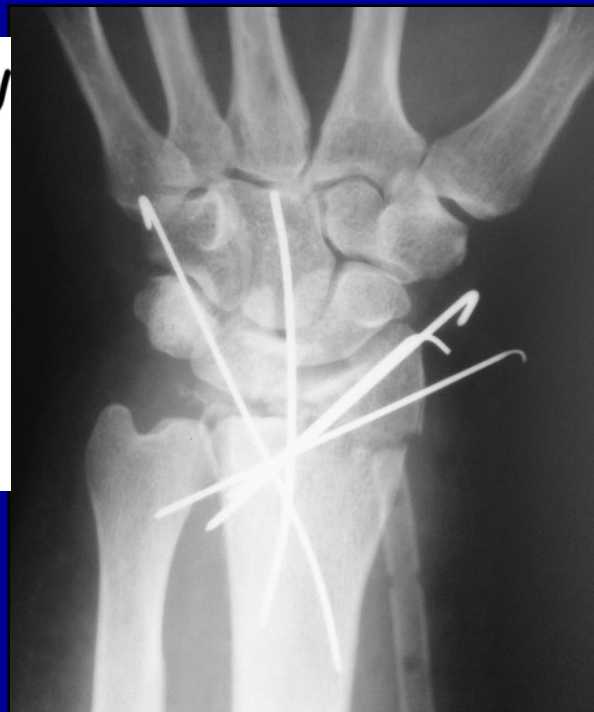




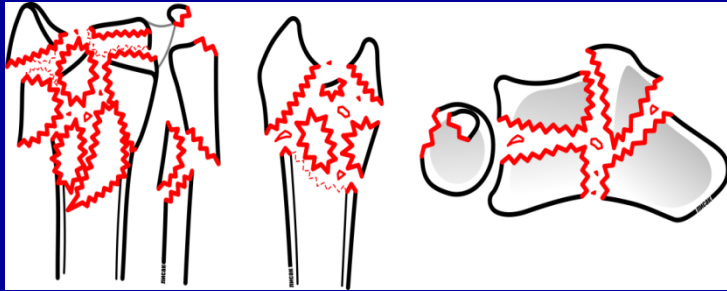
7th month after fracture



K-wires

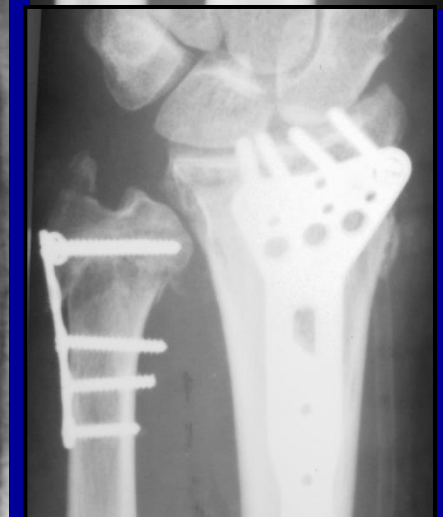
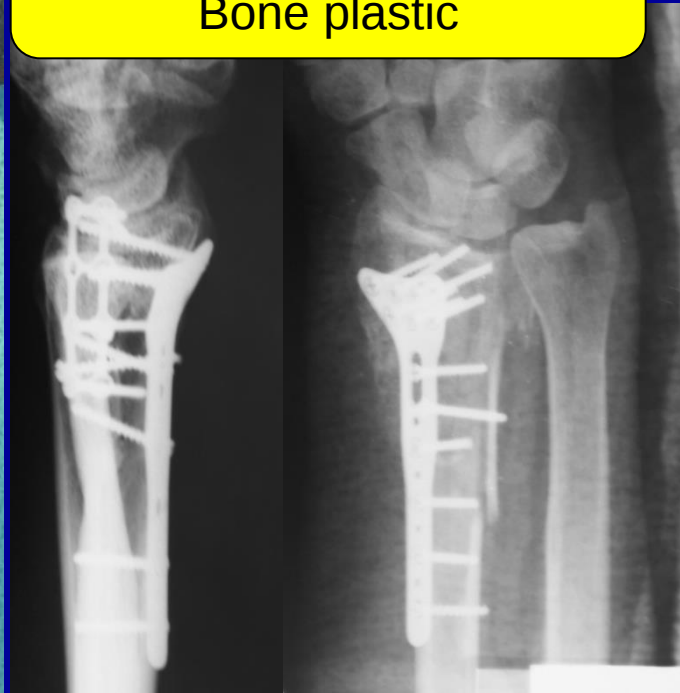


V тип
3a
Fernandez D.



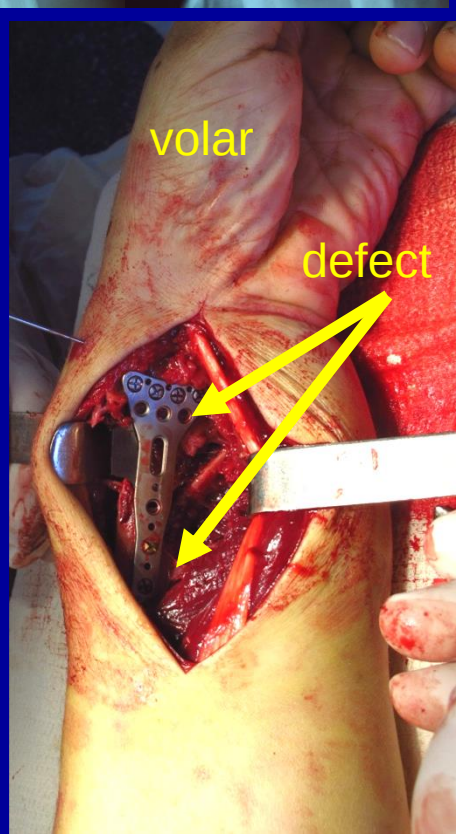
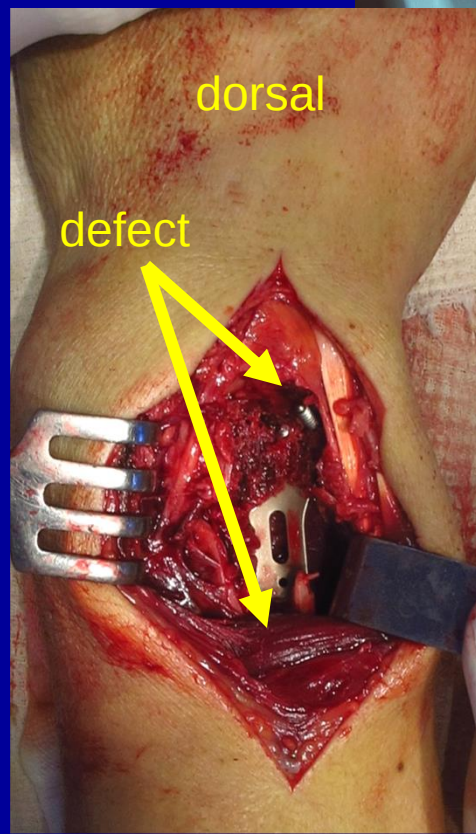
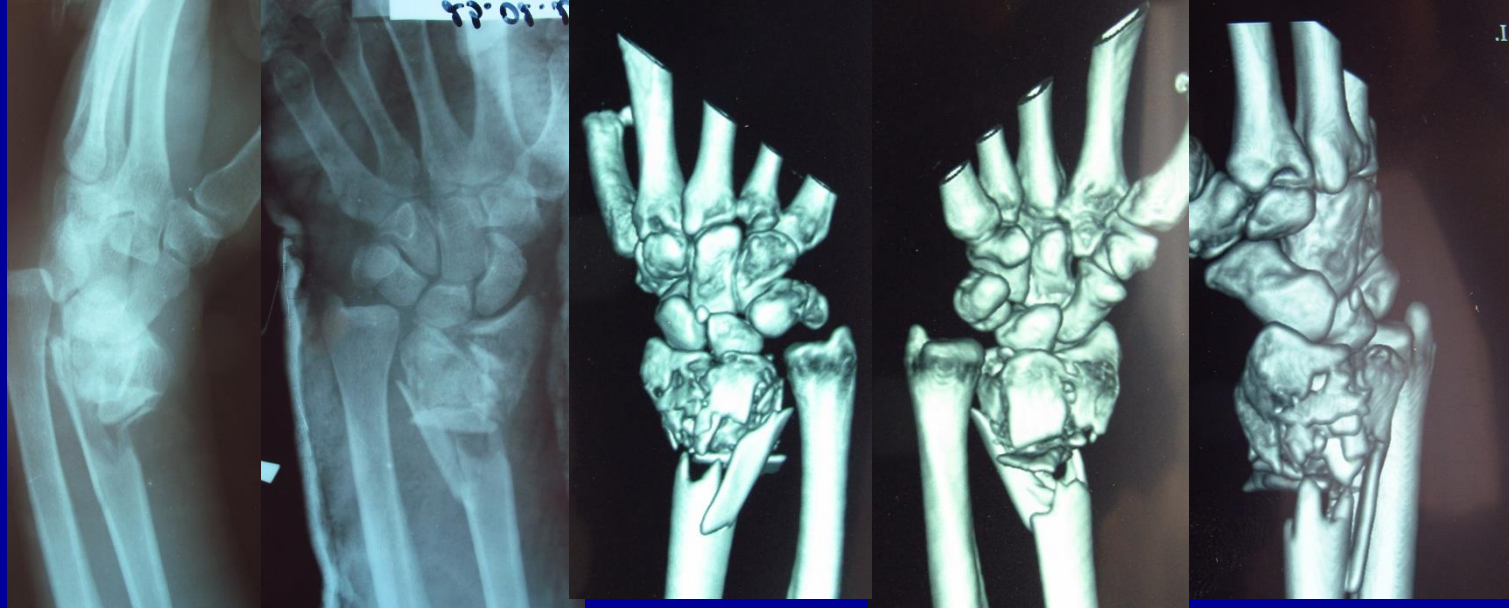


Massive plate & 2 plates
Ulnar column
Bone plastic



No IX 507839
F. 42 y.o.

V
type
Fernandez
D.





5th month after fracture



SUMMARY

- 1. Diagnostic!!!**
- 2. CT**
- 3. Surgical treatment**
- 4. Volar and combined approaches**
- 5. PQ & BR desinsertion**
- 6. Fragments mobilization!**
- 7. ARTHROTHOMY (ARTROSCOPY)**
- 8. Distractor**
- 9. Modern (?) anatomic plates**
- 10. Fragment specific fixation**
- 11. Bone plastic**
- 12. X-ray control**
- 13. Edema control**
- 14. EARLY MOBILISATION**

KIJÓW – POZNAŃ 2015



Dziękuję za uwagę !

