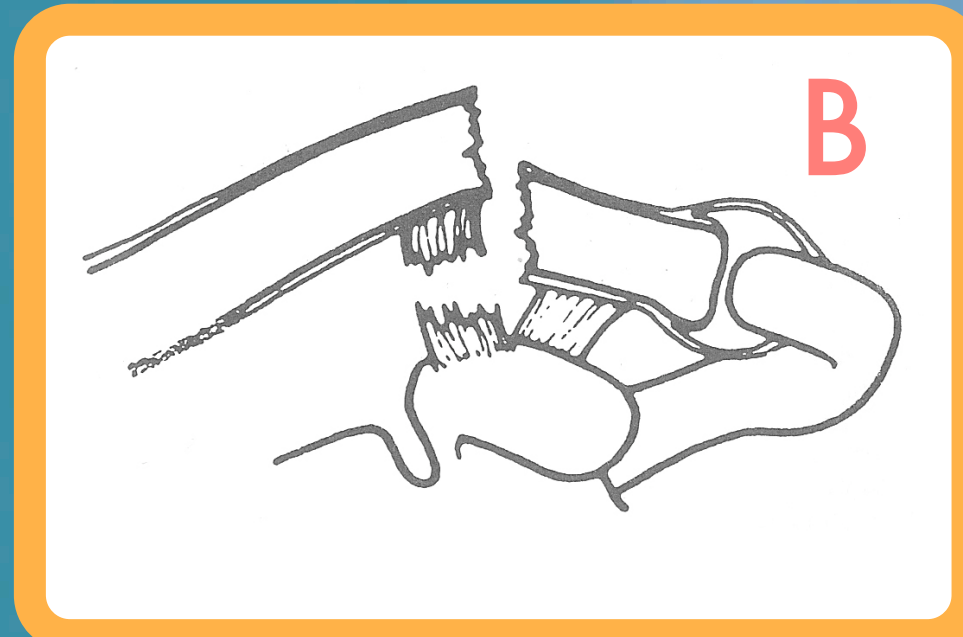
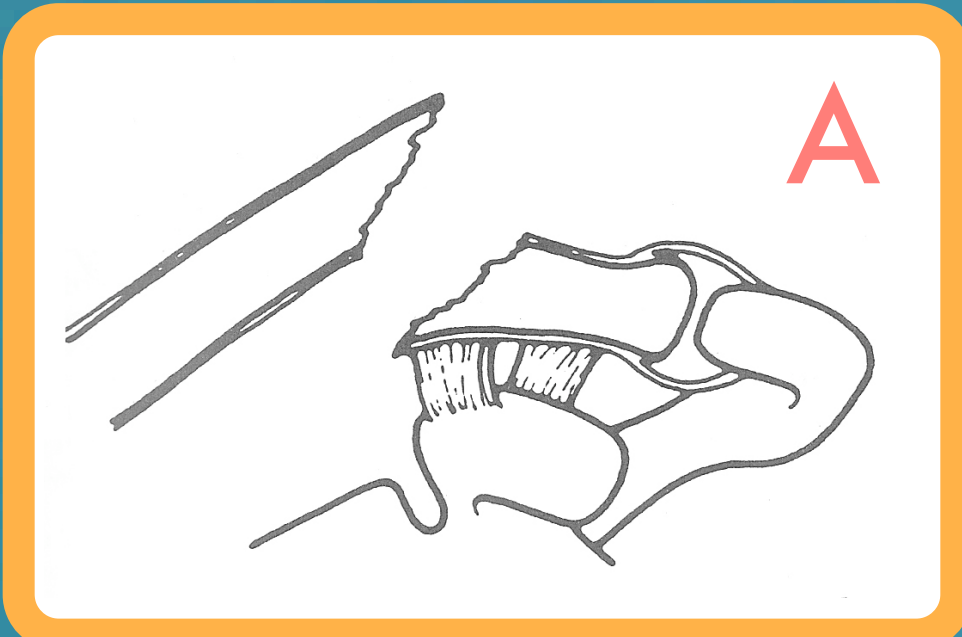


A Method For Internal Fixation of Unstable Distal Clavicle Fractures



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Distal Clavicle Fractures



Allman¹ group II, type II clavicle fractures:

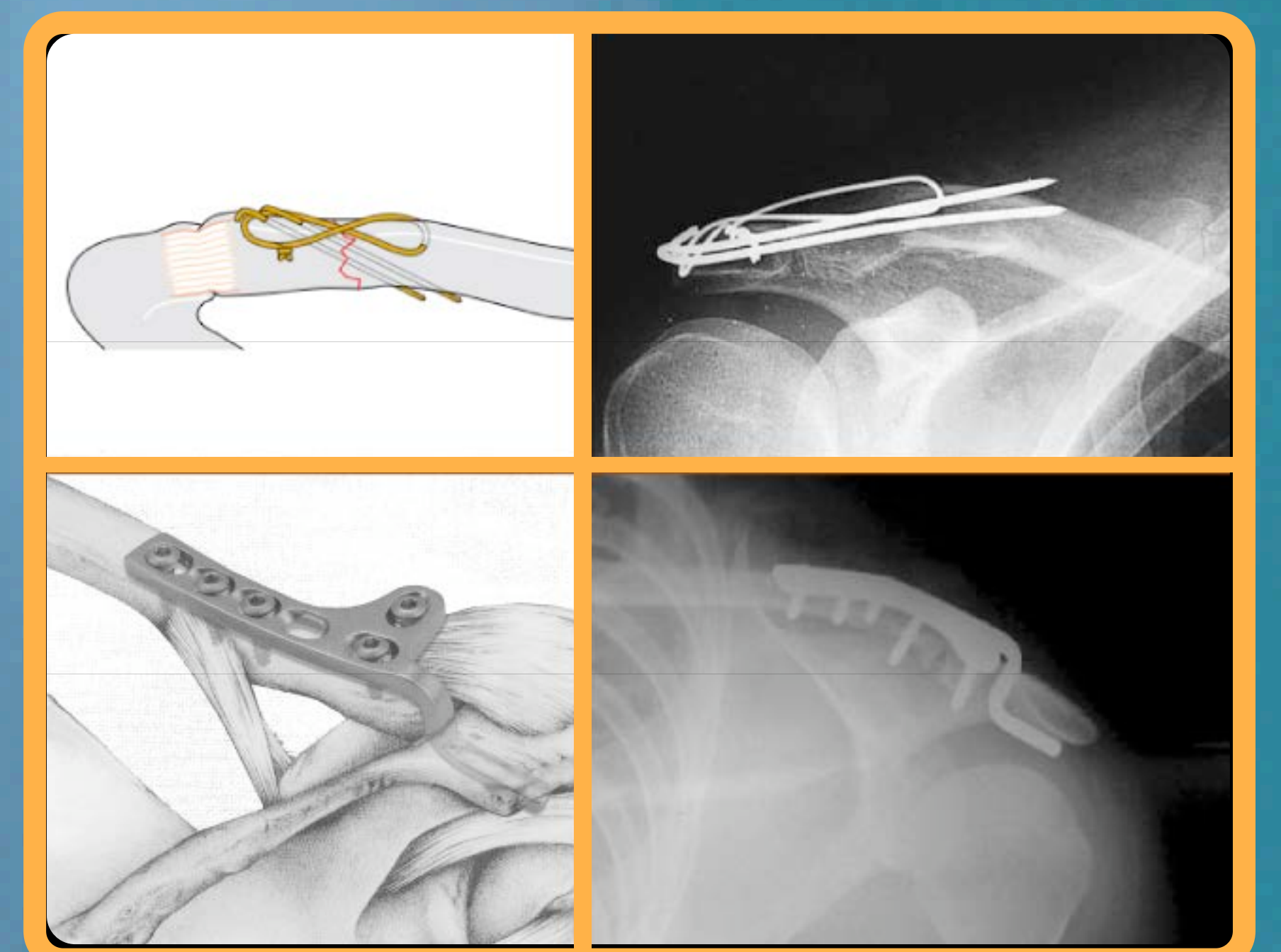
distal fractures proximal to or through conoid and trapezoid ligaments
ORIF often indicated for types II A and B (diagram 1) due to:

- instability
- 30% non union rate if treated non operatively^{2,3}
- may have gross deformity

Treatment Options

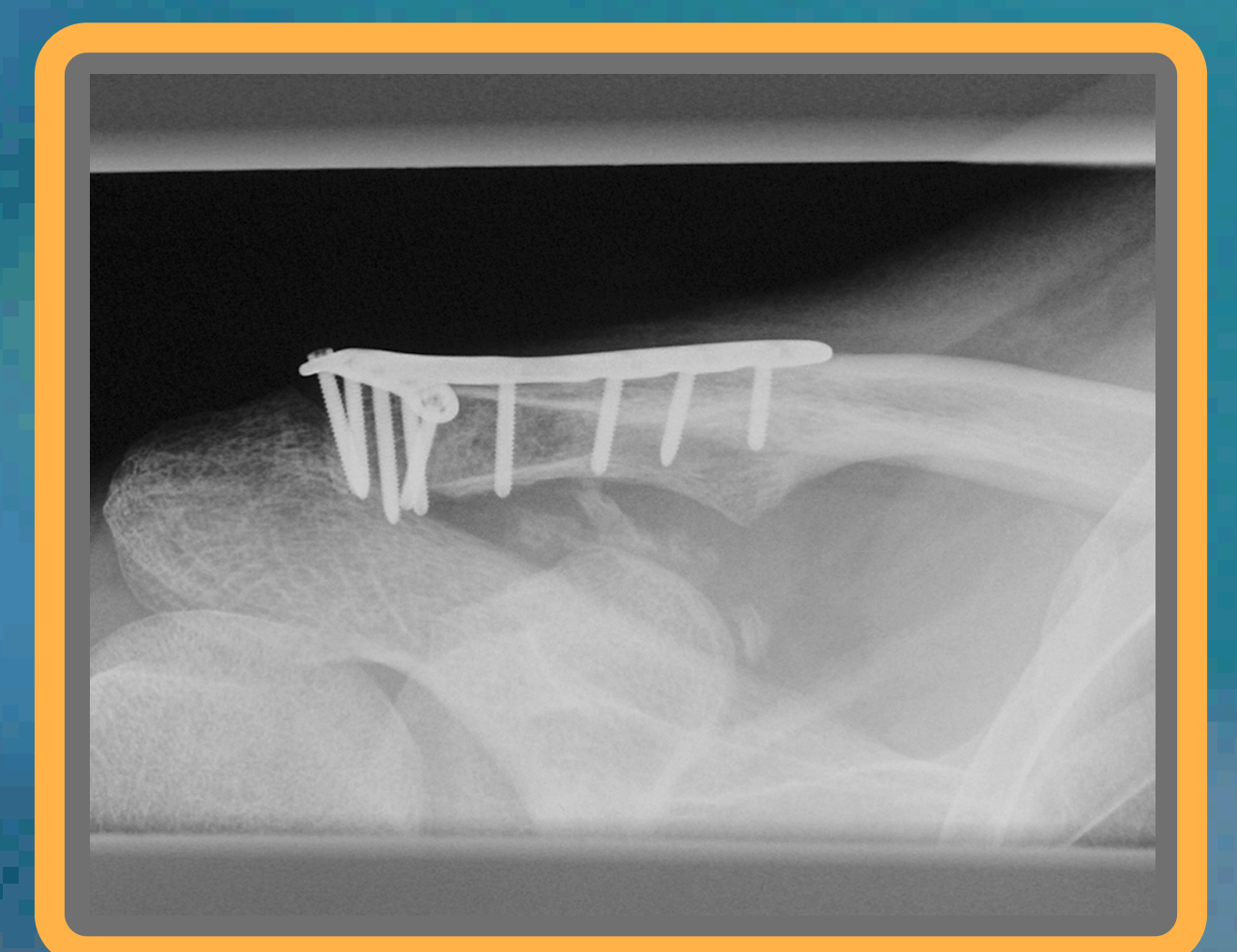
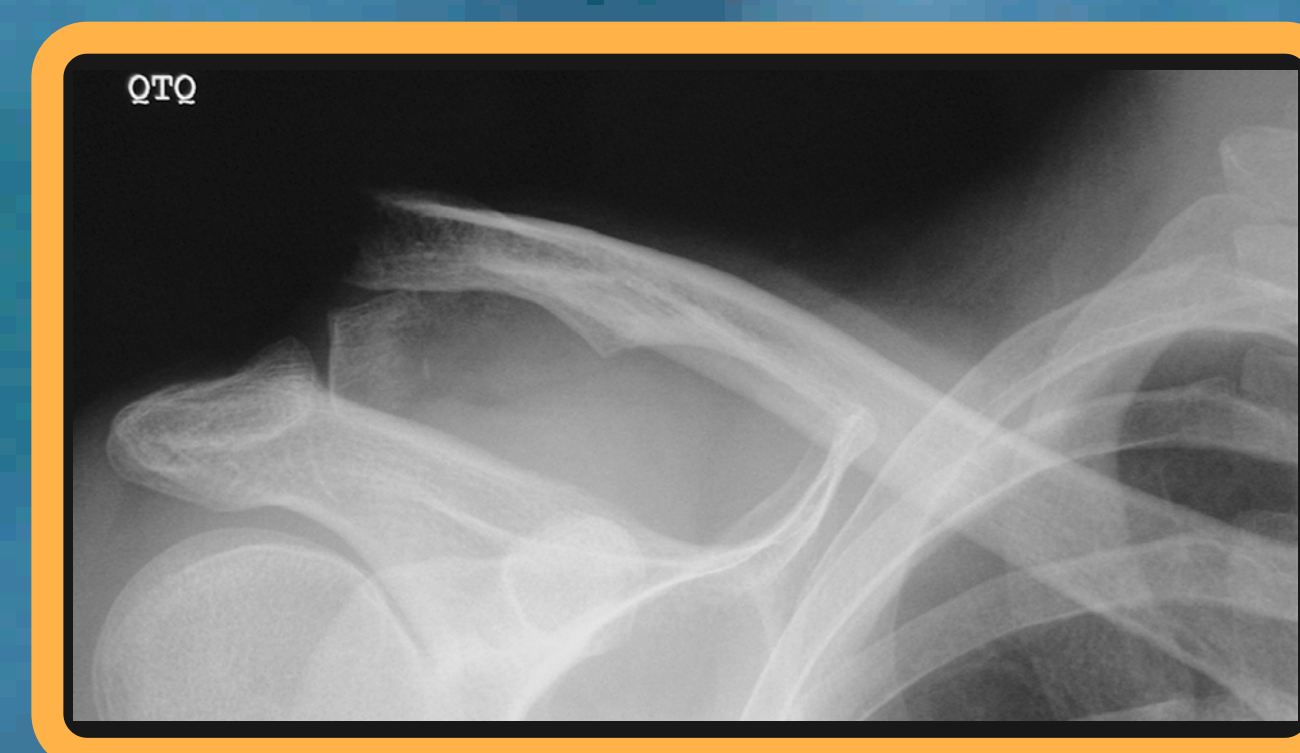
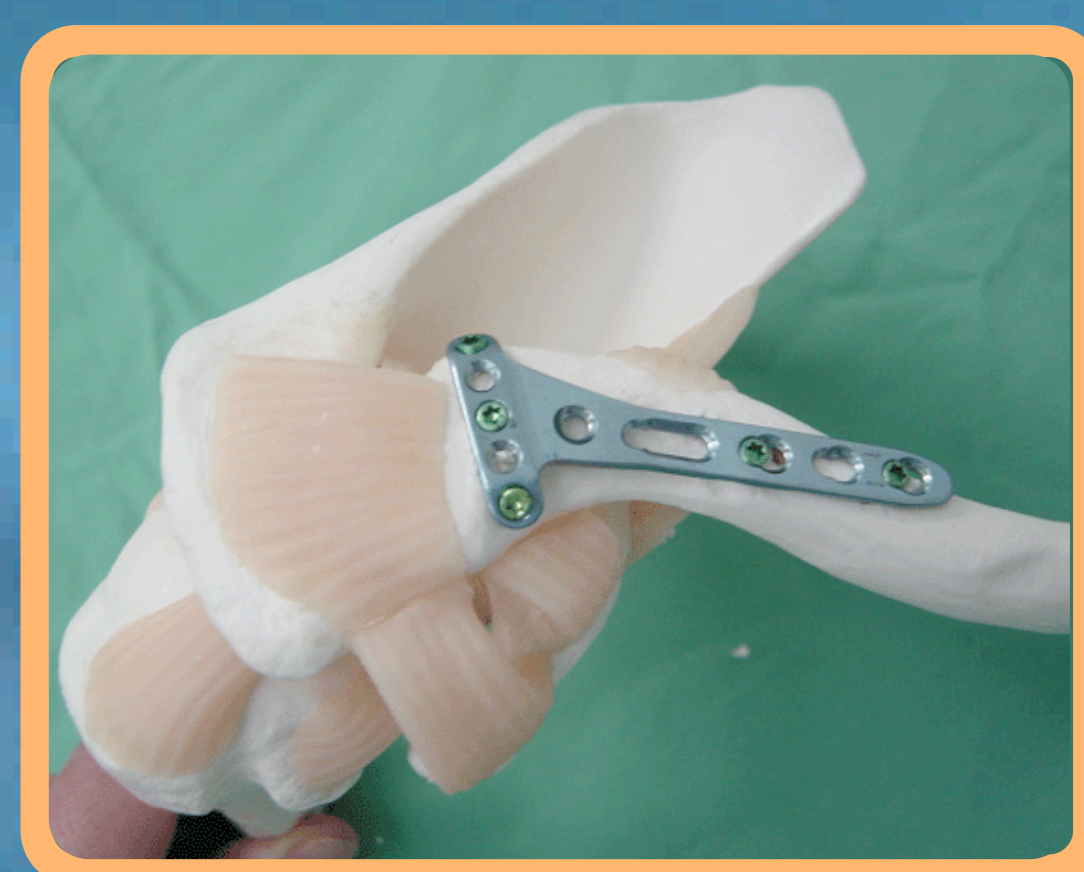
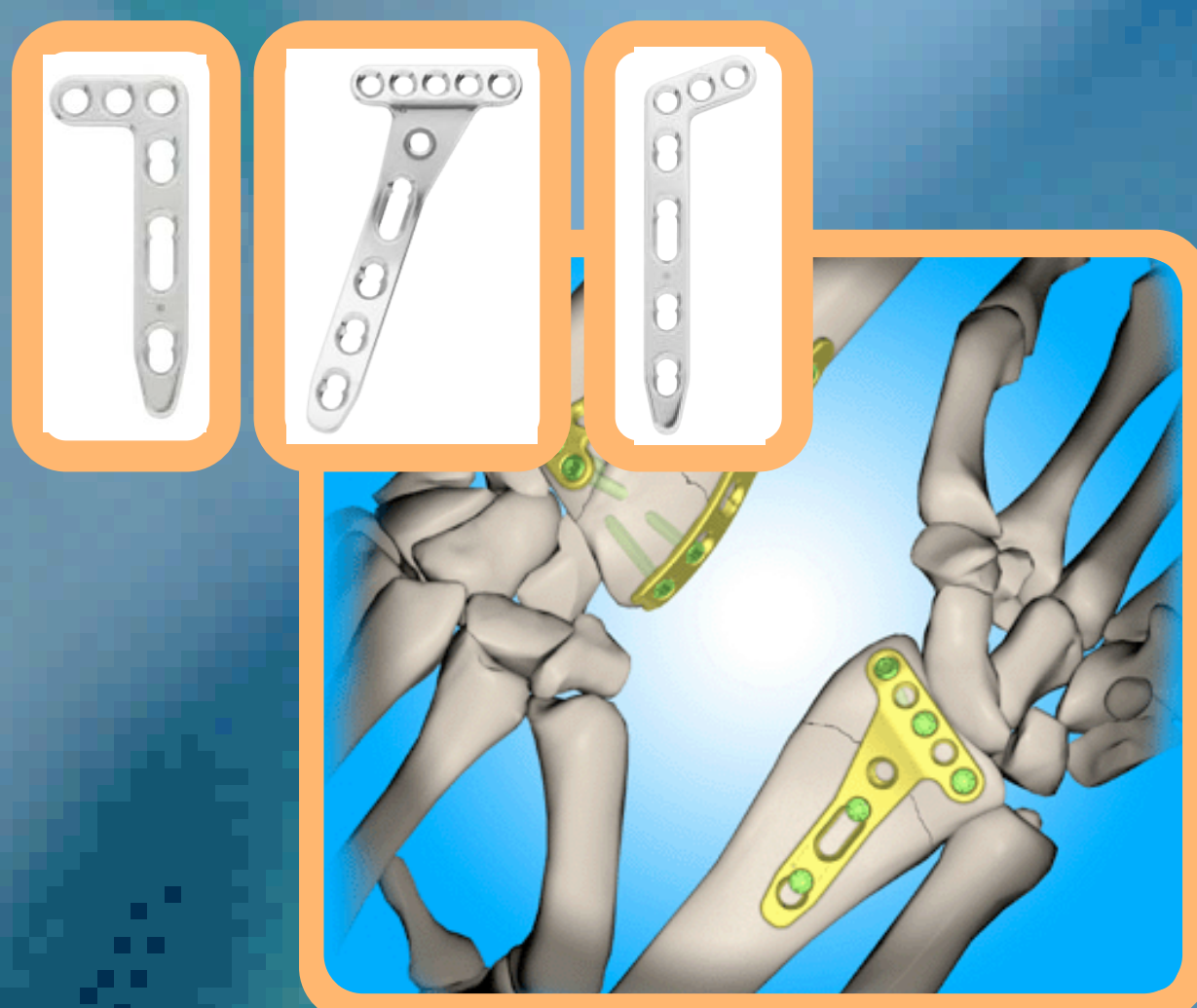
previous methods of fixation include tension band wire and hook plate

- problems with k wire fixation include: k wire migration (55%), non union (9%), loss of reduction (32%), require routine removal, mean Constant score = 95 at 6.2 years⁴
- problems with hook plate include: bulky implant, damage to ACJ, ACJ arthritis (21%)⁵, non union rate (12%), require routine removal, mean Constant score = 94 at 3.9 years⁴

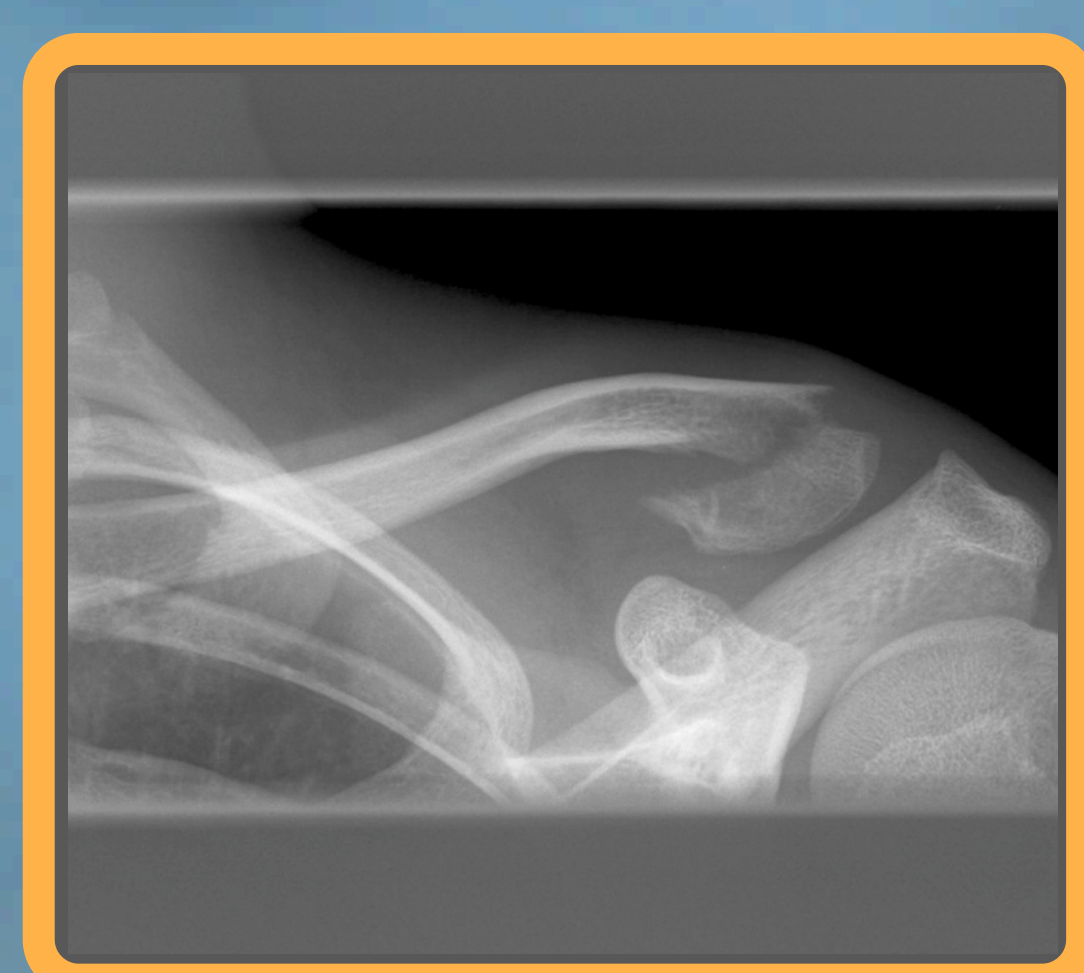


Our Surgical Technique

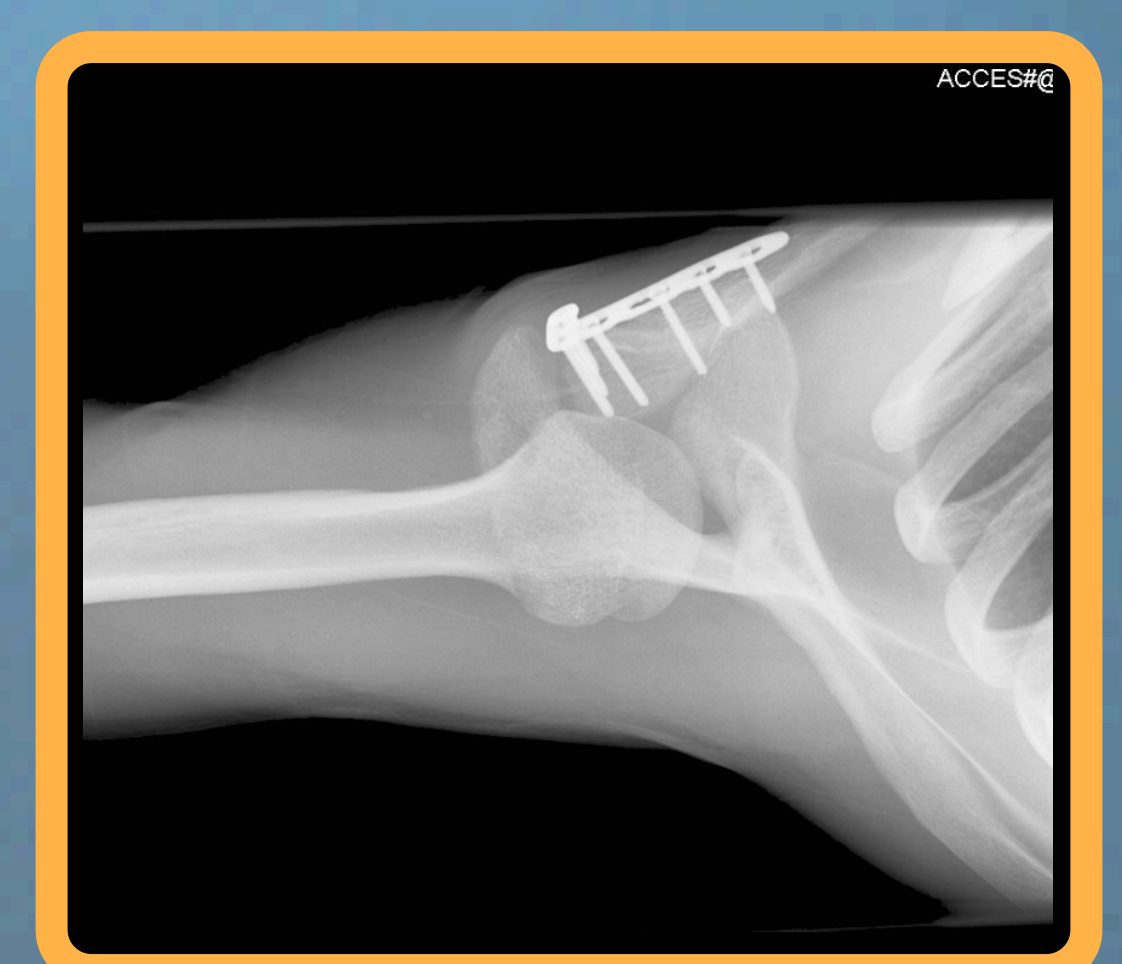
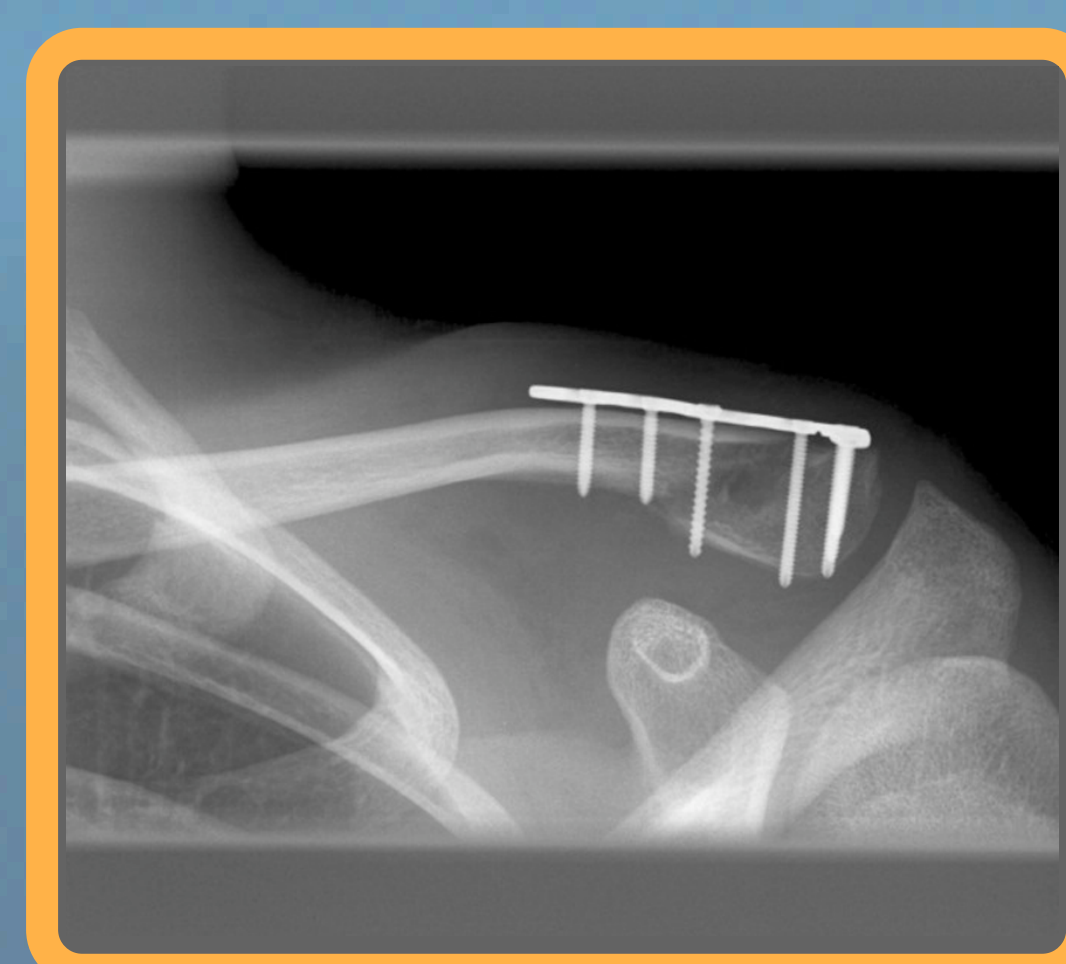
- fracture reduced and K-wire is passed across the ACJ and the fracture
- distal radius locking plate (usually volar T plate), is bent and fixed across fracture
- dual cortex locking head screws are used



Results



- 8 patients, 10 - 16 months follow up
- 100% union rate at average 8.7 weeks
- high functional outcome (average Constant score = 98 at union)
- no loss of reduction
- does not transgress or interfere with the AC joint
- no plates have required removal



References

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4. Flinkkilä T, Ristiniemi J, Hyvönen P, Hämäläinen M, Acta Ortho Scan, 2002
5. Henkel T, Oetiker R, Hackenbruch W, Swiss surg 1997