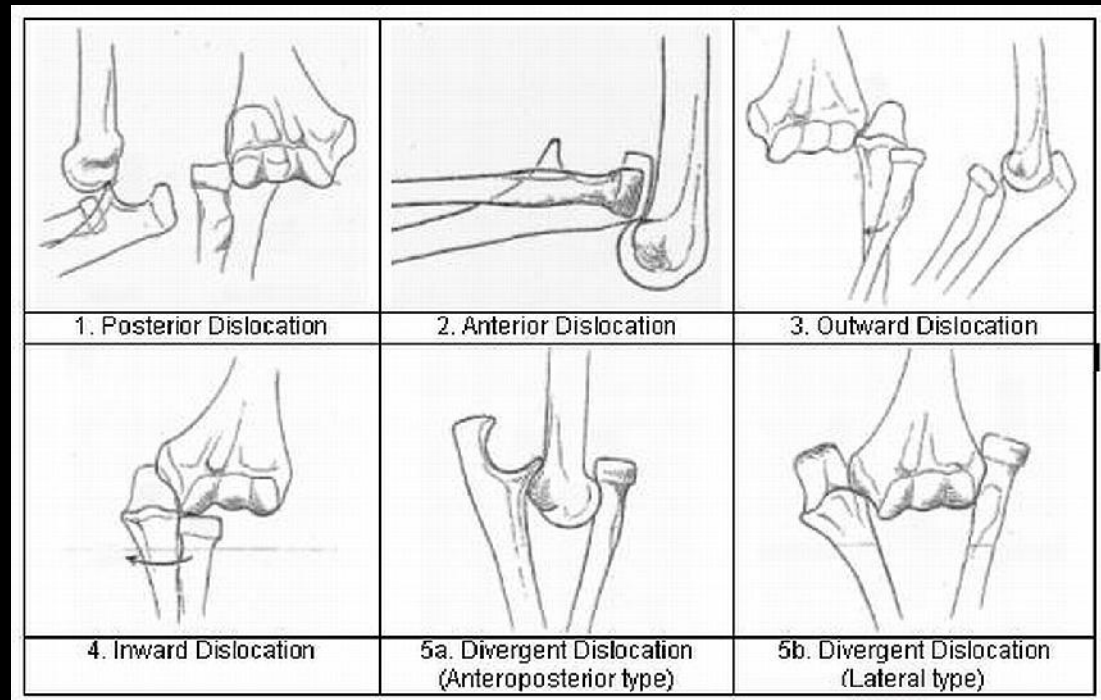


Simple elbow dislocations. The ongoing quest for post reduction functionality

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- **Simple Dislocations**  **No accompanying fractures**

Elbow dislocations have been classified into 6 different categories with most usual being the posterior type



Patients & Methods

- **Two Patients Groups (n1=10 , n2=9) with median age 35y.**
- **Reduction was performed by a 2 doctors collaboration after anaesthetic regional infiltration into the post-traumatic haematoma.**

1st Study Group

(7 men – 3 women)

Post reduction immobilization for 2 weeks. Elbow slinged at 90 degrees of flexion, followed by active mobilization afterwards

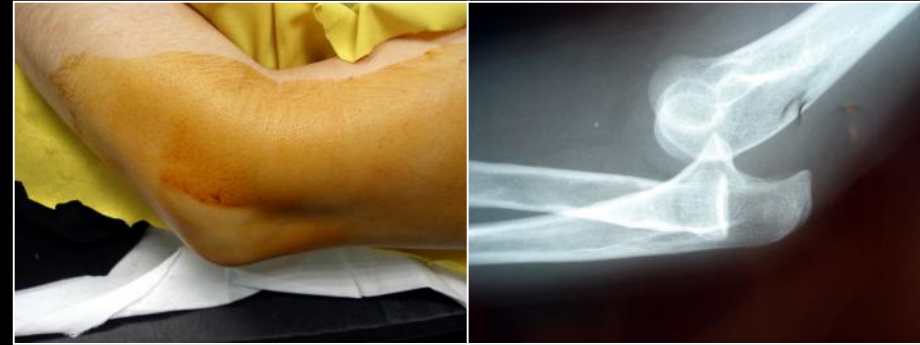
2nd Study Group

(5 men – 4 women)

- 1) Immobilization in a sling for 3 days at 90 degrees of flexion
- 2) Active mobilization on a flexion-extension axis (by the use of a functional brace) for 3 weeks.
- 3) Release of supination-pronation movements by the 3rd week.

Methods & Results

- Final follow-up mean time: 8 months
- No neurovascular lesion was recorded, pre or post reduction
- No iatrogenic fracture was recorded
- The Mayo Elbow Performance Score was used for evaluation
- Myositis ossificans was observed in one patient of the late mobilization group
- No case of recurrent dislocation was recorded in any group



A simple posterior elbow dislocation



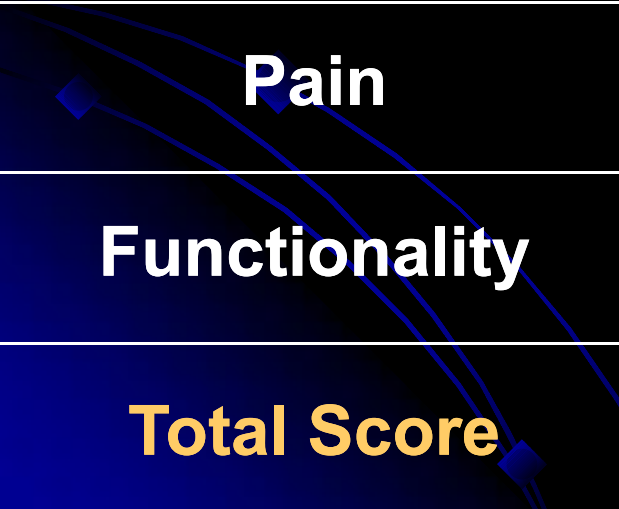
Elbow ROM 3 weeks post reduction



Full Elbow ROM 5 weeks post reduction

Mayo Elbow Performance Score

	Late Mobilization group	Early Mobilization group
Final Range of Motion (ROM)	15/20	20/20
Joint stability	10/10	10/10
Pain	45/45	45/45
Functionality	15/25	20/25
Total Score	85/100	95/100



Literature references

- Immediate reduction followed by no more of 1 to 5 days of immobilization
Protzman RR. Dislocation of the elbow joint. *J Bone Joint Surg.* 1978; 60A: 539–541

- The surgical repair of the collateral ligaments has not proven to offer better results than those of non-surgical treatment

Josefsson P et al. Surgical versus non-surgical treatment of ligamentous injuries following dislocation of the elbow joint. A prospective randomized study. *J Bone Joint Surg [Am].* 1987; 69:605-608

- Long periods of immobilization have not proven to be effective
Riel KA, Bennett P. Simple elbow dislocation. Comparison of long-term results after immobilization and functional treatment. *Unfallchirurg.* 1993; 96:529-533

- The disadvantages of immobilization have been widely recognized (e.g. pain, persistent stiffness, late degenerative changes etc)

Salter RB. The physiologic basis of continuous passive motion for articular cartilage healing and regeneration. *Hand Clin.* 1994; 10:211—219

- Early and late mobilization provide similar joint stability. Nevertheless a non immobilization protocol has achieved 95% success

Ross G et al. Treatment of simple elbow dislocation using an immediate motion protocol. *Am J Sports Med.* 1999; 27:308—311

Conclusion

- The joint stability and sensitivity do not seem to relate with the post reduction period of immobilization
- The final Range of Motion and the functionality of the elbow joint are statistically improved in the early mobilization group in comparison with the late mobilization group
- Early mobilization of the elbow joint after simple dislocations is the best way of treatment for the best functional results
- Patients shall be persuaded to follow early active elbow mobilization, initially at the flexion-extension axis and later at all axes

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11th EFORT Congress, Madrid-Spain