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Return to Sport Following Closed Reduction of Acute Traumatic Posterior Sternoclavicular Joint Dislocations: A Systematic Review

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Background

Acute traumatic posterior sternoclavicular (SC) joint dislocation is a serious injury given its potential to cause cardiovascular and airway compromise that typically will require emergent closed reduction. Posterior SC joint dislocations are usually caused by a high energy mechanism. Typical treatment involves closed reduction followed by observation. There is limited data on the rate of return to sport following this injury pattern when treated in a closed fashion.

Purpose

To systematically review the literature and evaluate:

- Rate of return to sport (RTS) after closed reduction of posterior SC dislocation.
- The timeline for RTS after closed reduction of posterior SC dislocation.

Methods

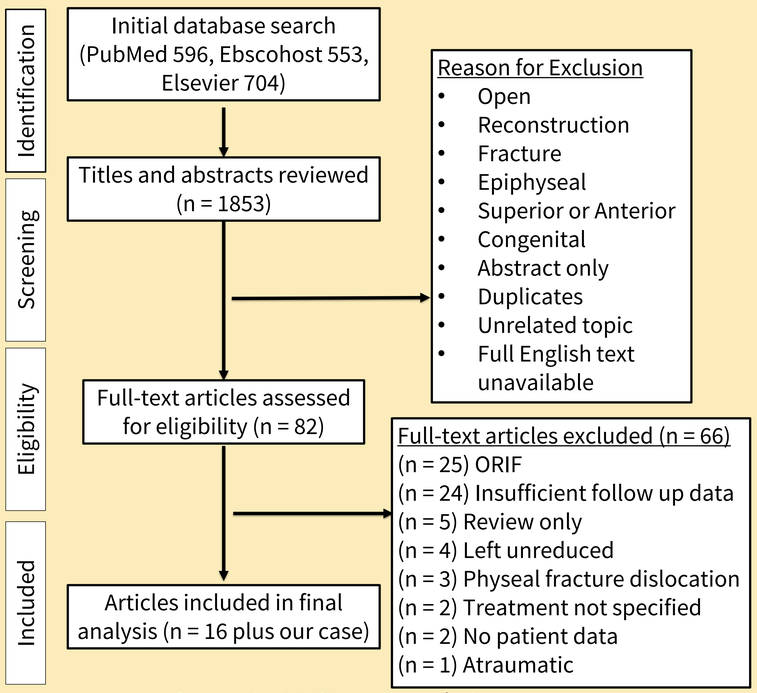
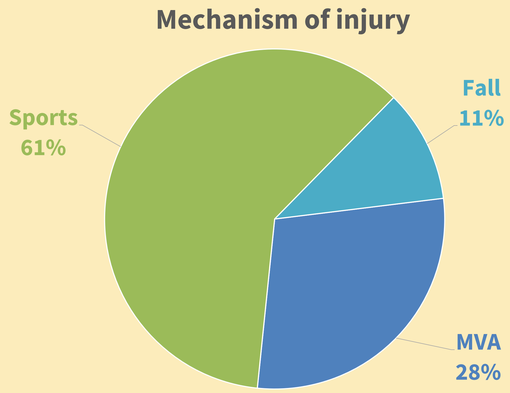
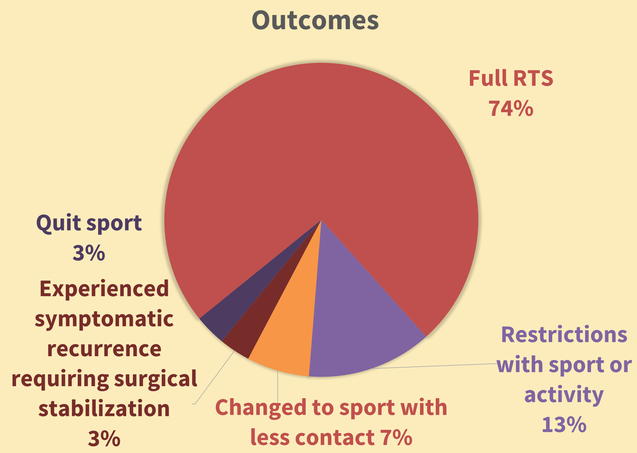


Figure 1. PRISMA Search Strategy

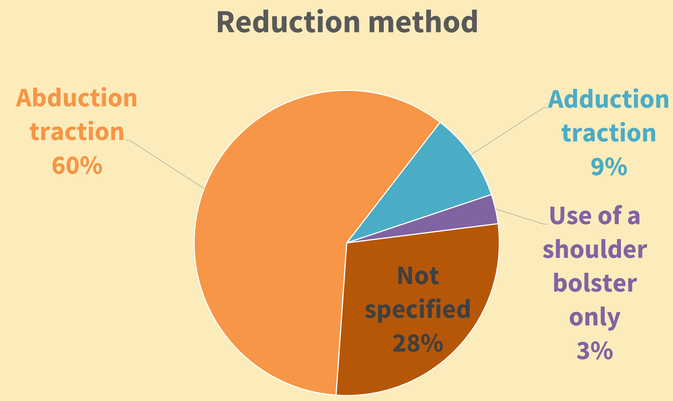
Results





Sports included football, baseball, wrestling rugby, tennis, basketball, and judo.
MVA = Motor vehicle accident

- 31 patients across 16 case series and case studies.
- Mean age 26 years (range 11 – 68 years)
- 90.6% male
- 50% Right shoulder/Left shoulder



Time from injury to treatment ranged from same day management to 10 days post injury.
4 cases had a vascular or cardiothoracic surgeon available, 2 cases did not; the remainder did not specify.

Conclusion

Closed reduction of acute traumatic posterior SC joint dislocations provides high RTS rates with low rates of secondary surgical stabilization.
Mean time to RTS at preinjury activity level = 3 months (range 1-6 months).
Post-surgical rehabilitation consisted of sling or shoulder immobilizer use for 4-6 weeks followed by a gradual supervised physical therapy program.

Limitations: all included studies are level IV and V evidence. Available body of literature on this subject is suspect to selection bias, detection bias, observer bias, and recall bias.

Acknowledgements

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