

The risk factors which predispose first-time anterior traumatic shoulder dislocations to recurrent instability in adults: A systematic review.

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Critically Appraised Topic

Clinical Scenario: The rate of recurrent shoulder instability following a first time anterior traumatic shoulder dislocation (FTASD) is reported to range from 26 to 83%. Initial management of people with a FTASD is controversial. Deciding the optimal management of people following a FTASD requires a better understanding of the rate of recurrent shoulder instability and the key variables which predict recurrent instability following a FTASD. A systematic review was undertaken in people over the age of 15 years who had suffered a FTASD which was documented radiographically or clinically. Studies were included if there was a follow-up period for one year or more and the primary outcome measure was rate of recurrent shoulder instability.

Clinical Question: What are the key variables that predict recurrent shoulder instability in adults following a FTASD?

Summary of Key Findings: Ten studies comprising 1,324 subjects met the criteria for inclusion. Of these 1,324 subjects, 39% suffered from recurrent instability following a FTASD. In those aged 40 years and under, 44% experienced recurrence compared with 11% in those aged over 40 years. People with a greater tuberosity fracture had decreased rates of recurrent shoulder instability compared to those without a greater tuberosity fracture. The rate of recurrent instability decreased as time from the initial dislocation increased. There was increased risk of recurrence in males (47 %) compared with females (26%). Additionally, other factors such as a bony Bankart lesion, nerve palsy, and occupation were shown to influence rates of recurrent instability. Further evidence is required to investigate the influence of large Hill Sachs lesions, hyperlaxity and physiotherapy on recurrent shoulder instability.

Clinical Bottom Line: The results of this review suggest that risk factors associated with recurrent instability following a FTASD are age at initial dislocation, time from dislocation and greater tuberosity fractures. Other factors such as sex, bony Bankart lesions, nerve palsies, Hill Sachs lesions, occupation, hyperlaxity and physiotherapy may influence the rate of recurrent instability. The findings of this review will be used to further develop a tool which will predict recurrent instability in people who are managed conservatively. This tool will be useful in deciding the optimal management of a person with FTASD.

Strength of Recommendations: Age at initial dislocation, time from the initial dislocation and greater tuberosity fractures were identified as key risk factors in at least two good quality cohort studies resulting in a strong recommendation as concluded in the GRADE criteria. Although sex, bony Bankart lesions, Hill Sachs lesions, occupation, hyperlaxity, physiotherapy and nerve palsy were also identified as risk factors for recurrent instability, the strength of recommendation was weak

using the GRADE criteria based on lesser quality studies or a lack of consistency between studies.