

#501 - Clinical Study

Clavicle Fractures Does Not Increase The Incidence Of Later Diagnosis Of Subacromial Impingement Syndrome. A Registry-Based Case-Control Study With 15-25 Years Follow-Up Of 131.838 Persons From The Danish National Patient Register.

Trauma / Shoulder & Upper Arm Trauma / Epidemiology, Prevention & Diagnosis

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Background

A clavicle fracture changes the mechanical axes of the shoulder girdle, potentially leading to scapular protraction and decreased subacromial space. A clavicle fracture could therefore predispose to later development of subacromial impingement syndrome (SIS).

Objectives

The purpose of this study was to investigate if a clavicle fracture was correlated with a higher incidence, or earlier diagnosis, of SIS.

Study Design & Methods

This was a case-control study with data from the Danish National Patient Register. Persons, aged 18-60 years, with a hospital contact due to a clavicle fracture (DS420) between 1.1.1996 and 31.12.2005 were identified. For each case, five matched (sex and age) controls were identified. Primary outcome was the first hospital contact with a SIS diagnosis (DM751-755) registered >180 days following a clavicle fracture. Patients were followed until 01.11.2021.

Results

21.973 cases and 109.865 controls were included. 23% were female. 1.640 (7.46%) cases and 8.072 (7.35%) controls later received a SIS diagnosis, demonstrating no significant difference in incidence of SIS diagnosis (p=0.56).

1614 cases underwent surgical fixation. This subgroup had a statistically significant higher incidence of receiving a SIS diagnosis later in life (205 cases, 13%, p<0.001).

Mean time from fracture to SIS diagnosis was shorter for cases compared to controls (4040 vs. 4442 days, p<0.001), and cases were slightly younger when receiving the diagnosis (51.3 vs 53.6 years, p<0.001)

Conclusions

Clavicle fracture patients did not have an increased incidence of a later SIS diagnosis, but were slightly

younger at the time of diagnosis. Surgical treatment was correlated with higher incidence of diagnosis.