PAIN PROVOCATION TESTS AND CLINICAL ENTITIES IN ACTIVE AND SEDENTARY INDIVIDUALS WITH GREATER CLAVICLE FRACTURES DOES NOT INCREASE THE INCIDENCE OF LATER DIAGNOSIS OF SUBACROMIAL IMPINGEMENT SYNDROME. A CASE-CONTROL STUDY OF 131,838 PERSONS

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

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

Materials and 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 clavicular fracture (DS420) between 1.1.1996 and 31.12.2005 were identified. For each case, 5 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).

Conclusion Clavicle fracture patients did not have an increased incidence of a later SIS diagnosis, but were slightly younger at time of diagnosis. Surgery was correlated with higher incidence of diagnosis.