

National Incidence of Surgically Treated Clavicle Fractures in Finland Between 1987 and 2010

Tuomas T. Huttunen^{1,2,4}, Pekka Kannus^{2,3,4}, Vesa Lepola², Harri Pihlajamäki⁵, Ville M. Mattila^{2,4,6}

¹ Department of Anesthesia and Perioperative Care, Regional Hospital of Valkeakoski

² Division of Orthopaedics and Traumatology, Department of Trauma, Musculoskeletal Surgery and Rehabilitation, Tampere University Hospital

³ Injury & Osteoporosis Research Center, UKK Institute for Health Promotion Research, Tampere

⁴ Medical School, University of Tampere

⁵ Division of Orthopedics and Traumatology, Seinäjoki Central Hospital

⁶ Department of Clinical Science, Intervention and Technology, Karolinska Institutet, Division of Orthopedics and Biotechnology, Karolinska Institutet and Department of Orthopedics at Karolinska University Hospital Huddinge, Sweden

Aims

Clavicle fractures are among the most common upper extremity traumas. Traditionally most clavicle fractures have been treated non-surgically, but after the introduction of locking plates increase in operative treatment has been suggested. The purpose of this study was to assess the numbers and trends of surgically treated clavicle fractures in Finland between 1987 and 2010.

Methods

The study covered the entire adult (>18 years) population of Finland over the study period. Data on surgically treated clavicle fractures was collected from the Finnish National Hospital Discharge Register. We assessed the number and incidence of surgically treated clavicle fractures annually.

Results

We identified a total of 7,073 surgically treated clavicle fractures during the study period. 74% of the surgically treated patients were male and 26% were female. The incidence of surgical treatment of clavicle fractures increased nearly nine-fold from 1.3 to 10.8 per 100,000 person years during the study period. The increase was most evident in men.

Conclusions

A striking increase in incidence of surgically treated clavicle fractures was seen from 1987 to 2010. There is no scientific evidence supporting this increase. Recent high-quality reports suggested similar functional results between operative and conservative treatment. Critical evaluation of the chosen treatment modalities is warranted.