Fractures of the talar neck and body: An observational study derived from the Swedish Fracture register

Anders Hammarberg¹, Anna Rubensson², Per Fischer³, Daniel Wenger⁴, Olof Wolf⁵, Hans Juto¹, Michael Möller², Sebastian Mukka¹, Jonas Sundkvist¹

¹ Department of Diagnostics and Intervention (Orthopaedics), Umeå University, Umeå, ² Institute of Clinical Sciences, Sahlgrenska Academy, Gothenburg University, Gothenburg., ³ Faculty of Medicine and Health, Örebro University, Örebro; Department of Orthopaedics, Karlstad Central Hospital, Karlstad, Region Värmland., ⁴ Department of Orthopaedics, Skåne University Hospital, Lund and Malmö, Sweden, ⁵ Department of Surgical Sciences, Orthopaedics, Uppsala University, Uppsala, Sweden.

Abstract

Background

Talus fractures are uncommon and reports on talar neck and body fractures are limited.

Aim

This study aimed to describe a cohort of talar neck and body fractures regarding fracture characteristics, associated foot injuries, treatment, and reoperations.

Methods

We reviewed radiographs at 7 orthopedic departments of adult patients registered in the Swedish Fracture Register 2011-2021 with talar neck and body fractures (S92.10/11). We excluded those with avulsion fractures or misclassified. Medical records were reviewed at a minimum 2-year follow-up.

Results

313 patients (318 fractures) were included with a median age 34 years (range 18-88, IQR 25), 67% men and 64% with a fall from height. Of all fractures, 134 were neck, 184 body and 78 were fractures that extended from the neck to body area or vice versa. 37% had multiple injuries to the same or other foot. 76 neck (57%) and 126 body fractures (68%) underwent operative treatment, mainly screw fixation. 27 patients (20%) with neck fractures were reoperated. 39 patients (21%) with body fractures were reoperated. The combined neck and body group had a reoperation rate of 35% (27 of 78 fractures). In all 3 groups, 14% of the operated patients were later reoperated with arthrodesis and one after primary non-operative treatment.

Conclusion

Talar neck fractures and body fractures occur mainly in men and are associated with other fractures. The majority of both neck and body fractures are treated operatively and one in five were reoperated, with higher reoperation rates in combination injuries.