Evaluating the weight bearing status of stable Weber B ankle fractures

Efthymios Iliopoulos, Thomas Voller, Richard Freeman, Natasha Hossain
Brighton and Sussex University Hospitals, NHS Trust, Brighton, United Kingdom

Introduction
The fracture stability of supination external rotation (SER) type ankle injuries is determined by obtaining weight bearing radiographs 1-2 weeks post injury. Stable Weber B ankle fractures are treated with a walking boot for six weeks with instructions to fully weight bear. 1,2

Aim
The aim of the present study was to evaluate the amount of weight patients manage to apply through the boot during their treatment and the amount of support the boot provides to them.

Materials & Methods
All the adult patients treated with the above mentioned protocol between December 2017 and April 2018 were included to the study.

Functional outcomes measured with the FADI and COST questionnaires and weight bearing radiographs were obtained at 2 and 6 weeks after the injury.

The patients were asked to weight bear with and without the boot in order to measure the amount of weight going through the injured limb.

Results
Data from a total of 77 follow up appointments were collected and analysed. Most of the patients were female (61%) and their mean age was 56.3 ± 18 years (mean BMI 29 ±7).

At the 6-weeks follow-up the functional scores reached almost normal values (72.1 ± 15.8 for FADI and 50 ± 17 for COST score).

At the 2 weeks follow up, 28 patients (73.7%) were able to weight bear fully without needing the boot.

A further 10.5% (4 patients) could achieve full weight bearing when using a boot leaving 6 patients (15.8%) who couldn’t fully weight bear even when using a boot.

The boot improved the weight bearing status of the patients needing the boot as aid for weight bearing significantly (p<0.001) by 23.1% of their body weight.

All of the patients (100%) were able to weight bear fully with and without the boot at the 6-weeks follow-up.

Conclusion
Conservative treatment for stable Weber B ankle fractures lead to good functional outcomes. In our study we found that for majority of patients the walking boot did not aid in their weight bearing ability or change their weight bearing status, but it did for just over a quarter of the patients reviewed.

References

Contact: iliopoulos@gmail.com