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Introduction

Rib fractures after blunt trauma contribute substantially to morbidity and mortality in the elderly.

Methods

Retrospective review of 255 patients ≥65 years old at a level 2 trauma center over 6 years, who sustained blunt trauma resulting in rib fractures. Outcomes measured include mortality, hospital length of stay(LOS), intensive care unit(ICU) admission, ICU LOS, need for MV, and MV days.

Results

There were 24 deaths(9.4%), of which 7 were early(<24h). 130 patients(51%) were admitted to ICU, and 49(19.2%) required MV. Mean ICU and MV days were 5.9 and 6.3 respectively. ICU admission was predicted by a base deficit <-2.0, ISS>15, bilateral rib fractures, pneumothorax or hemothorax on chest x-ray(All $p<0.001$), as well as hypotension, GCS<15, and 1st rib fractures(All $p<0.05$). Mortality was predicted by a base deficit <-5.0, GCS score of 3(Both $p<0.001$), as well as hypotension, ISS≥25, RTS <7.0, bilateral pneumothoraces, 1st rib fractures, and >5 rib fractures (All $p<0.05$).

Conclusion

Rib fractures in elderly blunt trauma patients are associated with significant mortality and morbidity, but outcomes can be predicted to improve care.