

SHOULDER DISLOCATIONS IN MOUNTAIN CASUALTIES

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- 2.5% of Snowdonia mountain casualties
- One-third were recurrent dislocations
- Most commonly occurred whilst hill-walking
- Isolated injury in 80% of cases

Aim
To establish the demographics and injury patterns of shoulder dislocations in UK mountain casualties.

Method
We interrogated our database of mountain casualties brought to Bangor ED following assistance from Mountain Rescue Teams (MRT) and/or Search & Rescue helicopter (SAR), between January 2004 and November 2018, who had an ED (or post-mortem) diagnosis of shoulder dislocation.

Results

- From 1528 casualties on the database, 310 (20%) had at least one upper limb injury and 38 (2.5%) sustained shoulder dislocation (all anterior, one bilateral).
- All shoulder dislocation casualties were adult (19-59 years) and 82% were male.
- In most cases (30/38) the dislocation was an isolated injury & 66% of dislocations were right-sided. One-third of affected casualties had previously dislocated the same shoulder.
- Four individuals had associated fractures, and two had nerve injury detected in ED.
- Only one fatality (a body recovery from scene) had a dislocated shoulder noted on post-mortem examination, amongst "multiple injuries sustained in a fall from height".
- Half of the dislocated shoulders were sustained whilst hill-walking (19/39) followed by rock-climbing (10) and scrambling (5). Ice-climbing, mountain biking, canoe/kayaking and paragliding each accounted for one casualty.
- All cases were assisted by MRT and 28/38 were flown to hospital by SAR helicopter. Two casualties had their shoulder relocated at the scene by MRT Doctors.
- 28/38 patients were discharged from ED with fracture clinic follow-up, six stayed on the ED's Observation Ward, and three were admitted (two orthopaedics, one ITU).

Discussion
This dataset provides a unique cohort of shoulder dislocations sustained by UK mountain users. This injury is not common (2.5% of all mountain casualties) but most often (like other mountain trauma in our database) occurs in male hill-walkers and rock-climbers; and as an isolated, right-sided injury. Associated fractures and nerve injury are unusual, and shoulder dislocations are rare in mountain fatalities.

Extrication from the mountain appears challenging, with almost three-quarters of casualties flown to hospital, but our database captures only those casualties who required MRT/SAR assistance, and may under-report upper limb injuries who self-extricate.

