Bilateral humeral fractures secondary to seizure in an older patient: the case for vigilance amidst vulnerability

A 79-year-old female suffered a prolonged, tonic–clonic seizure, sustaining bilateral comminuted fractures of the humeral heads as a consequence. The fractures were managed conservatively under orthopaedic supervision. Six months post-injury, abduction of the left and right arms is to only 30° and 45°, respectively. She is no longer capable of living independently and is awaiting long-term care placement.

Fractures occur in 1% of patients following a seizure, of which 0.3% are a result of the seizure alone [1]. The elderly are particularly vulnerable to fractures due to the age-related decline in bone mineral density [2]. They are liable to additional difficulties such as cognitive impairment which can hinder diagnosis and rehabilitation and are burdened by poorer overall outcomes [2, 3]. We would encourage physicians to consider this rare but potentially debilitating complication promptly following a seizure in the older population as early diagnosis is essential to secure the best functional outcome.

Conflicts of interest
None declared.

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None declared.

Key points
- Fractures caused directly by seizures are rare but recognised.
- Older population are particularly vulnerable.
- Outcomes of fractures are worse in this population.
- Early recognition and diagnosis provides opportunity to secure best outcomes.

References