

Self-Inflicted Wrist Injuries Masquerading as Scaphoid Fractures in Military Recruits: Case Series

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Introduction

- Self-inflicted injuries of the hand for the purpose of secondary gain are common in the military population
- Rates of scaphoid fractures are higher among military personnel than in the general population (121 per 100,000 person-years compared to 43 per 100,000 person-years, respectively).
- there are no reports of self-inflicted injuries that mimic scaphoid fractures. We detected them and report a short case series of soldiers who presented with self-inflicted injuries in order to raise awareness of the common characteristics of spurious scaphoid fractures among military personnel.

Methods

- The five soldiers were seen between March 2014 and February 2017 either in the emergency department (ED) of a tertiary care hospital or in the primary care setting of a military infirmary.
- All patients were recruited to mandatory military service and were between 18 to 19 years of age at the time of presentation with wrist symptoms. None of them were assigned to either combat duty, suggesting low motivation for service.

Results

- Common characteristics of patient injury and management are presented in table 1.
- The chief complaint was pain and swelling in the wrist following a fall on an outstretched hand. Physical finding included moderate swelling and pain in the snuffbox (Fig 1).
- The patients were judged as malingering by the treating physician based on clinical judgment and lack of radiographic findings

Discussion

- To our knowledge, this is the first report of self-inflicted scaphoid injury, which we believe is widespread
- Instructions for reproducing symptoms (e.g., using a potato or a spoon to bruise the bone) are readily available online. The areas that are most likely to be injured are bones that are covered with a thin subcutaneous layer (Radial styloid, the malleoli and femoral condyles).
- If a self-inflicted injury is suspected, we recommend tactfully but firmly confronting the patient for his/her behavior.

Conclusion

Self-inflicted scaphoid injuries are common among young recruits seeking secondary gain, and misdiagnosis might lead to unnecessary treatment with deleterious effects. There are common symptoms that are associated with spurious injuries of the wrist. The final diagnosis is mainly one of exclusion.

Fig 1: A 19-year-old soldier with suspected self-inflicted injury to the radial dorsal wrist. There is diffuse swelling and redness over the anatomical snuffbox and the first dorsal web.



Table 1. Prominent signs in the diagnosis and management of self-inflicted injury of the radial wrist.

Patient	Injury	Management
<ul style="list-style-type: none"> •Low motivation to fulfill duties •Antisocial personality disorder •Multiple encounters with medical care providers in both military and civilian medical settings •Medical history consisting of highly subjective symptoms that are difficult to corroborate (abdominal pain, headache, fainting, etc.) •Prospect of secondary gain (mostly sick days) 	<ul style="list-style-type: none"> •History of injury notable for vague and inconsistent self-reporting •Inconsistency between the description of injury occurrence and physical and radiographic findings •Patient's failure to localize the pain to snuffbox swelling or scaphoid tuberosity but rather presenting with exaggerated rigidity of the wrist. •Likelihood of not reporting that there had been similar complaints of injuries in the past 	<ul style="list-style-type: none"> •A careful differential diagnostic investigation, including review of prior and current medical history, a thorough physical examination and series radiographs of the scaphoid • If self-inflicted injury is suspected, the patient should be provided with a candid report of the physician's impression and referred to other services (mental health, social worker, etc.) when indicated