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Alleged recurrent traumatic shoulder dislocation in a young male patient – Diagnostic and management considerations

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ABSTRACT

A young male presented to a nearby hospital with a left shoulder dislocation after an alleged kickboxing injury. The patient reported worrying clinical findings including excruciating pain and absent sensation distally. Reduction was successful but his shoulder re-dislocated shortly after. His reported symptoms worsened and he was transferred to our institution. Imaging findings were not immediately concerning and he went to theatre the next day for an examination under anaesthetic. His shoulder was re-located easily and an immobiliser applied. Less than an hour later, the patient managed to re-dislocate his shoulder in recovery. He was subjected to another general anaesthetic and successful reduction. He absconded the following day after being declined multiple and increasing doses of opioid analgesia. He re-presented three weeks later with similar clinical findings but a different mechanism of injury. Further exploration of his collateral history revealed that he had been using a false identity. He had presented to all hospitals in our city within the previous 6 months. Once confronted, he did not return to these hospitals. He was also capable of self-relocating his shoulder. This case bore a striking resemblance to a case described by Warren in 2000 of a young lady with an apparently dislocated shoulder presenting to multiple city hospitals looking for analgesia and general anaesthetics. We wished to highlight the diagnostic and ethical challenges associated with these patients. They are vulnerable and so a high index of clinical suspicion is needed on the part of the surgeon to avoid unnecessary interventions. Effective communication between orthopaedic departments is a key recommendation from this case to mitigate risk of harm to these patients.

Introduction

In this case, we discuss the diagnostic and management challenges we encountered while treating a young male patient with apparent recurrent traumatic shoulder dislocation. Our hope is that the reader will be better equipped to deal with these patients in the future. We have outlined his presentation(s) in full with reference to similar cases in the literature. In highlighting his case, we wish to prevent these patients undergoing unnecessary interventions by ensuring effective communication between orthopaedic departments.

Case

A 22-year-old gentleman presented to a nearby hospital with a suspected left shoulder dislocation after an alleged kickboxing

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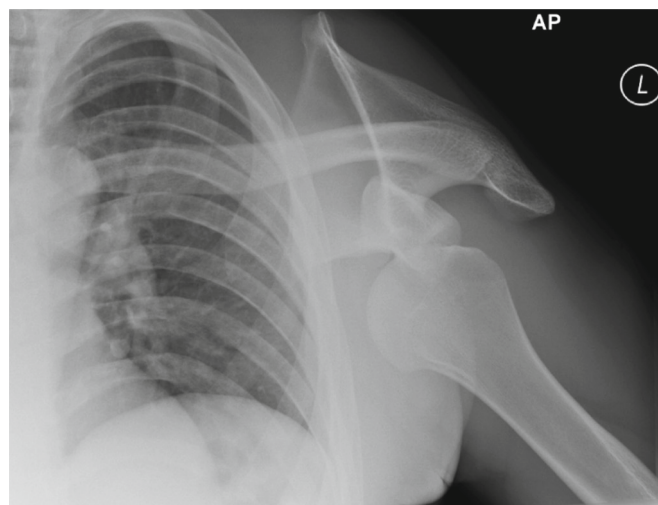
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injury. He reported absent sensation in his left forearm and hand but excruciating pain in his left shoulder. 100µg IV Fentanyl was given prior to successful re-location. On returning from imaging (Fig. 1A, Fig. 1B), his left shoulder had re-dislocated. He now complained of absent sensation distal to the elbow and was unable to extend at his CMC joint. Shoulder re-location was performed. He complained of inadequate sedation throughout the procedure despite 10 mg IV Morphine and 10 mg IV Midazolam.

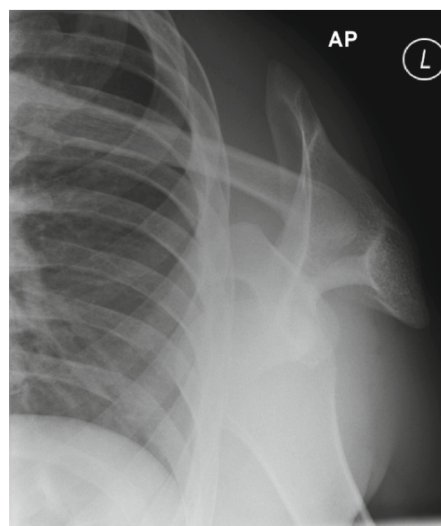
He was transferred urgently to our hospital and found to have intact sensation in C5, with absent sensation in C6, C7, C8 & T1. Examination of left upper limb power revealed C5 1/5, C6 0/5, C7 0/5, C8 3/5 & T1 0/5. Radial artery pulse was present. Left shoulder CT revealed normal glenohumeral alignment, a bony Bankart lesion and irregularity of the humeral head suggestive of a Hill Sachs deformity (Fig. 2A, B). Left upper limb angiogram was normal. He was brought to theatre the following day for EUA. Power was 5/5 in the upper limb post-procedure with the patient still reporting absent sensation. He subsequently absconded when requests for increasing doses of strong analgesics were not met.

He re-presented three weeks later with a similar presenting complaint. He claimed he was underneath a car and attempting to remove its catalytic converter and felt a “pop” in his left shoulder. 5 mg of IV Morphine was given prior to relocation. This had no effect and a further 3 mg + 3 mg of IV Midazolam and 5 mg IV Morphine were given. He remained fully alert and complained of 10/10 pain on mobilising his shoulder.

Further failed reduction attempts by ED staff prompted a consultation to our orthopaedic service. We requested the patient be nursed in the prone position as per Stimson's method of shoulder relocation, but it proved unsuccessful. He was brought to theatre and



A

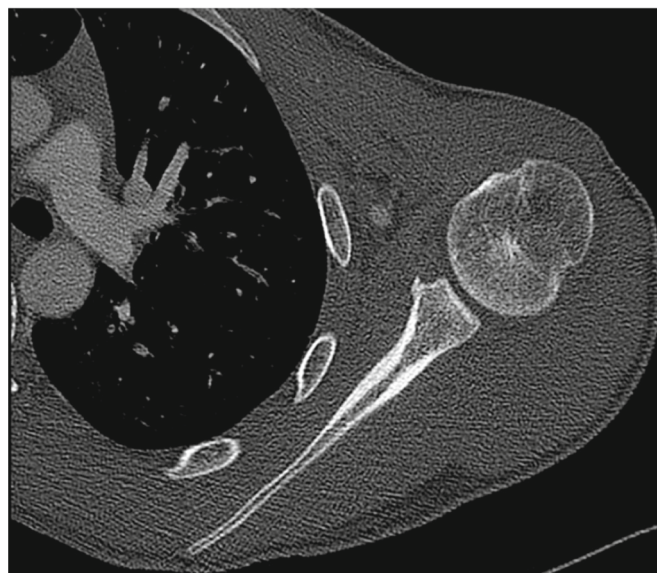


B

Fig. 1. Fig. 1A – AP radiograph of patient's left shoulder at first presentation showing anterior dislocation. Also note degree of scapular dyskinesia. Fig. 1B – Scapular Y view radiograph of patient's left shoulder at first presentation showing anterior dislocation.



A



B

Fig. 2. Fig. 2A – sagittal cut of left shoulder CT scan showing irregularity of the humeral head, suggestive of Hill-Sachs deformity Fig. 2B – axial cut of left shoulder CT showing anterior inferior left glenoid fracture in keeping with a bony Bankart lesion.

the shoulder easily reduced with adduction, external rotation and some abduction as per the Kocher method (Fig. 3A, B).

Roughly 50 min later, the patient had re-dislocated his left shoulder in recovery. He was brought to theatre again and given another general anaesthetic (GA). The shoulder was again reduced. He returned to the ward with strict instructions not to remove his shoulder immobiliser.

On speaking with a relative, it transpired that the patient was using multiple aliases and dates of birth (including his brother's). He had issues with both shoulders before and was capable of self-reducing same. He had presented to multiple hospitals in the city in the previous 6 months with the same complaint and always provided a fictitious mechanism of injury.

He was seen and assessed by the liaison psychiatry team. They were happy that the patient was not actively psychotic and that his behaviour was in keeping with drug-seeking behaviour. Once again, he absconded after telling nursing staff he was going outside to smoke.

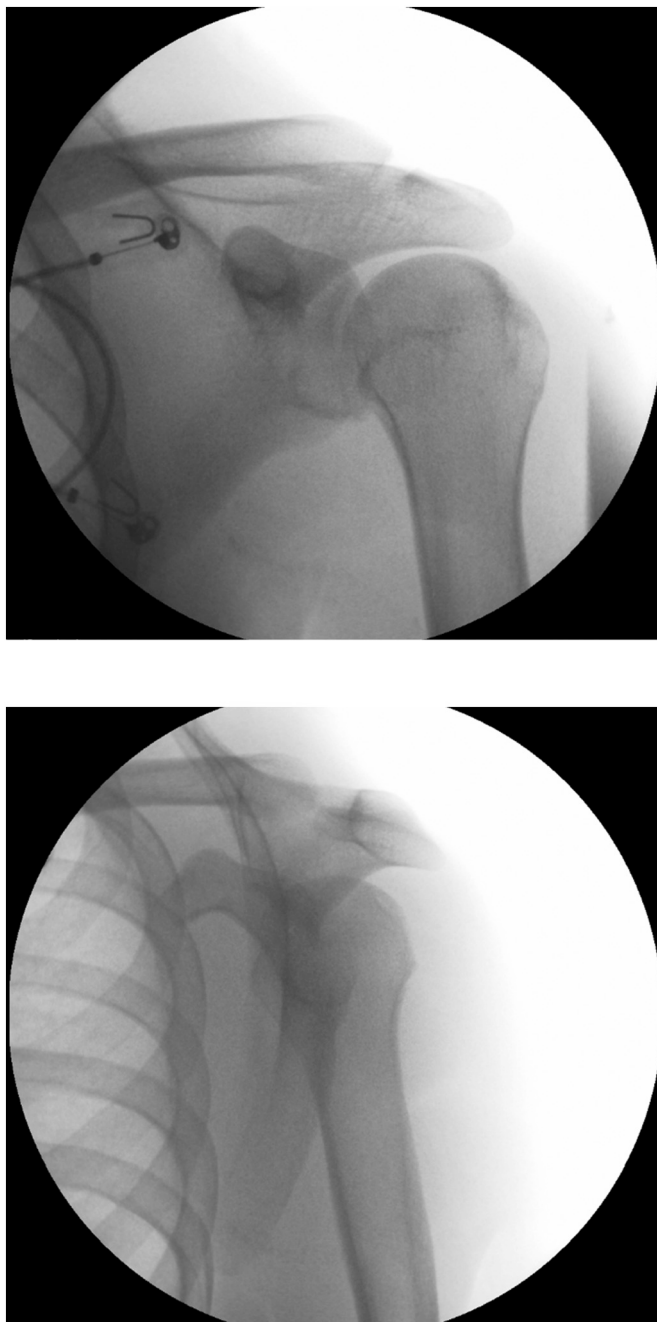


Fig. 3. Fig. 3A, 3B – intra-operative screening from EUA and reduction showing satisfactory glenohumeral alignment.

Discussion

This case highlights how easily a patient can be subjected to unnecessary interventions and receive large quantities of powerful medications. While our patient's signs and symptoms were not immediately life-threatening, the potential for fatal outcomes in these patients cannot be ignored [1]. Repeated unnecessary exposures to GA in his case provided an increased risk of mortality.

Our case bears a striking resemblance to one described by Warren in 2000 [2]. Munchausen Syndrome – orthopaedic variant (as initially proposed by Warren) is very difficult to diagnose. What may discredit a diagnosis of Munchausen's syndrome in our patient is that his symptoms and pathology are not fictitious in nature. He has very real pathology in that his CT-proven Hill-Sachs lesion and bony Bankart lesion can lead to highly unstable shoulders.

Warren's paper prompted a response from Barton and Williams who detailed their own experiences with a proposed orthopaedic

variant of Munchausen's syndrome [3]. Their patient attended ED and had multiple “failed” attempts at reduction under morphine/midazolam. Neighbouring hospitals also struggled with reductions, until the patient was confronted with their history and the subsequent reduction would be successful.

These patients present a challenging case for the orthopaedic surgeon. Our patient received three general anaesthetics during his care. However, as physicians, we must strive to “do no harm” and unnecessary medical interventions fall under this category. Our patient presented with worrying findings and the teams involved intervened appropriately. Surgeons must also beware of the particularly savvy patients who attempt to assume the sick role through the use of Google Images [4]. We recommend obtaining departmental imaging for all patients who present with questionable images obtained externally.

Our study highlights deficiencies in how orthopaedic units communicate regarding these challenging patients and presents opportunities for improvement. Only after a member of staff was describing the case to a colleague in a nearby hospital did the patient's history come to light as he had also presented there. However, we also failed to appropriately warn colleagues after the patient absconded.

The community of trauma & orthopaedic surgeons in our country is relatively small. We frequently use secure medical messenger apps e.g. Siilo [5] to send patient information, imaging etc. to colleagues in other hospitals. It would not be difficult to type a quick description of the case (with imaging) as we are familiar with this process already from other referral pathways. This could have alerted colleagues and spared the patient from unnecessary GAs and re-locations. While we have these apps, technology has perhaps let us down elsewhere in the management of this patient. Our institution has its own radiology system, separate to most of the rest of the country, and so imaging from other institutions is not immediately available. A lack of universal access to online patient medical records also hindered us. A move towards more integrated IT systems in the future could help to protect these vulnerable patients.

This doesn't tackle the issue of why these patients present repeatedly, however. The orthopaedic teams in each hospital did what they felt was best for the patient. However, his issues go far beyond his shoulder instability – namely drug-seeking behaviour and alleged drug addiction. It could be argued that he should not have made his way to the orthopaedic team as frequently as he did. He would have been better served being looked after by someone more sensitive to his complex psychosocial requirements. This phenomenon of the emergency department “frequent flyer” has been identified in the literature with strategies devised to combat same. One of the more successful ones described is “case management”. This is a “collaborative process of assessment, planning, facilitation, and advocacy for options and services to meet an individual's health needs...” [6]. Designated case managers identify appropriate providers and services for individual patients. The availability of substance abuse counselling - a service that proved difficult to access in the community for our patient – has been touted as one of the more successful aspects of case management [6].

This patient presented to multiple hospitals with different identifying information and so even with the interventions we have suggested, his management was going to be challenging. The purpose of highlighting his case is to encourage open and early communication between orthopaedic units, making good use of the modern tools we possess (secure messenger apps, online patient records, integrated imaging systems across multiple geographical sites, etc.). The availability of a case manager is also strongly recommended as they can protect patients by offering appropriate services. Through a combination of this case discussion and our recommendations, we hope to raise awareness about these patients and their existence and so ultimately reduce any harm done to them through unnecessary interventions.

Declaration of competing interest

The authors have no conflict of interest to declare.

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