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Case report

ANTERIOR DISLOCATION OF SHOULDER DUE TO ENTANGLEMENT OF ROPE AND PULL BY CATTLE IN AN OCTOGENARIAN

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ABSTRACT

The shoulder joint is a common site of dislocation owing to its inherent anatomical characteristics. It is common in young individuals and is frequently related to sports and other activities. Mostly they are managed successfully with urgent reduction and rehabilitation in uncomplicated scenario. However, risk of recurrence calls for periodic review and future assessment. The occurrence in older patients is uncommon. Our case depicts an unusual mode of this injury in an octogenarian lady who sustained injury due to entanglement of rope while pulled by a cow and its satisfactory management.

Keywords: Shoulder Dislocation, Injury, Trauma.

INTRODUCTION

The shoulder joint is commonest site of all major joint dislocations.¹ In most instances, it follows a traumatic event in 96% of all cases.² Abduction, external rotation and extension while forceful loading of the arm is a common mechanism of injury. Most of the dislocations are anterior with subcoracoid, subglenoid or intra-thoracic patterns. Most of these injuries are managed well with closed reduction by various methods described in literature.³ Presented case is a rare example of the violent sudden pull by a cattle and forceful shoulder injury resulting in dislocation and its appropriate management.

CASE REPORT

The patient, an eighty one year old active lady presented to us with a history of injury to her right shoulder region a day back while she was grazing her cow in a field. She was holding the rope attached to the cow's neck. All of a sudden the cow took a turn

and started running to the opposite side and she was pulled along with it due to entangled rope. She was pulled to a distance of twenty meters before the cow stopped and she could untangle the rope and call for help. She was unable to use her right extremity since then and the injury was painful and discomforting. There were some abrasions over the back and neck region, but fortunately no other injury was noted. She was taken to a primary centre for first aid before referred to us. She was evaluated for other associated or remote injuries. There were no other injury and no associated neurovascular deficit present clinically. There was a loss of contour of shoulder with sulcus defect and she was not able to cross the affected elbow to midline and beyond. The probable diagnosis of uncomplicated anterior dislocation was made. The radiograph of the patient confirmed the diagnosis. The poor socioeconomic status of patient precluded use of advance imaging to check associated capsulo-labral injuries.



Fig 1: Radiograph of the injury showing dislocation.

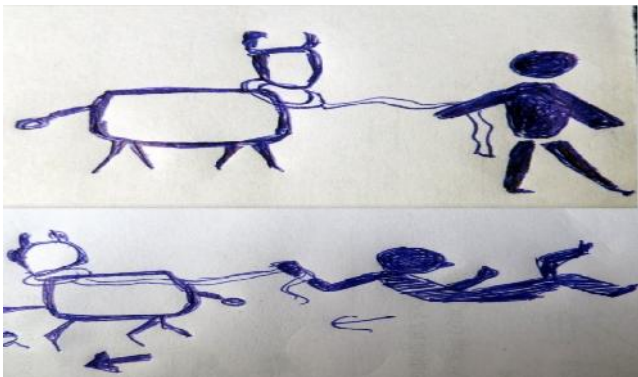


Fig 2: Schematic diagram depicting mode of injury - The case with cattle and then forcefully pulled through entangled rope.



Fig 3: Post reduction radiograph showing a successful reduction.

RESULT

The patient was prepared for urgent closed reduction under appropriate anaesthesia after proper informed consent. The shoulder was reduced uneventfully with Milch method as described. The reduction was confirmed clinically and by imaging and a shoulder

immobilizer was applied as per the standard practice in our department. There was dramatic relief of pain and disability post- reduction. The immobilizer care and instructions were explained and demonstrated. The immobilizer was maintained for three weeks to allow soft tissue healing and decrease risk of recurrence. The appropriate exercises in rehabilitative phase assured early functional recovery. The clinical evaluation of rotator cuff pathology was negative. The follow up at three, six, twelve weeks and finally at three and six months showed good functional outcome and a stable shoulder with no history of recurrence.

DISCUSSION

The elderly patients are affected in one fifth of all shoulder dislocations.⁴ Shin SJ et al studied 61 cases of shoulder dislocation in patients over sixty years of age and found half of the cases with no associated defect and other half with associated rotator cuff injury. They also reported effectiveness of conservative management in most cases.⁵ However the patients can be reviewed for associated capsulo-labral tear and recurrence is not dependent on increased age.⁵ The Milch method is a useful method of reduction with fewer reported complications as it is base on position rather than distraction.⁶ The recurrence rate is limited in elderly age group as posterior supports are affected more in contrast to anterior support in young patients.⁷ Persistent pain and disability calls for ruling out rotator cuff pathology and its due management. Associated neurovascular injuries may be evaluated for documentation and further appropriate management.^{4,7}

CONCLUSION

The presented report underlines an uncommon mode of a common trauma in the setting of farm side injuries related to cattle and livestock that are an inherent part of a large percentage of the population living in our country. However the treatment involves sticking to basic principles of care and follow up. An anticipation of such injuries may help prevent it with appropriate caution.

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Conflict of interest – Nil

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