A Case of Simultaneous Bilateral Anterior Shoulder Dislocation

Mallanagouda N Patil[1]

What to Learn from this Article?

Rare presentation of Simultaneous Bilateral Anterior Dislocation (SBAD) of Shoulder Joint?
Presentation and management of this injury?

Abstract

Introduction: Anterior dislocation of shoulder is commonest dislocation one encounters in day to day Orthopaedic practice. But bilateral shoulder dislocations are relatively uncommon frequently posterior and secondary to violent muscle contraction. Simultaneous bilateral anterior dislocations of shoulder following trauma is rare occurrence.

Case Report: 35 year old male presented to emergency department with history fall by tripping on a stone (fall on outstretched hand). He complained of pain and difficulty in moving both the shoulders. On clinical examination, patient's both upper limbs were abducted and externally rotated. Bilaterally shoulder contour was lost with flattening. Other classical signs of shoulder dislocation viz, Bryants test, Callway sign, Hamilton's ruler test were positive. Diagnosis was confirmed on X rays. Both shoulders were reduced in emergency operation theater under general anaesthesia by Kocher's method and were immobilised in sling.

Conclusion: Though bilateral shoulder dislocations are commonly posterior, usually either secondary to convulsions or electric shock, anterior dislocation has to be kept in mind , especially in post traumatic injuries. This bilateral dislocation also presents with practical problems immobilization and day to day care of patients.

Keywords: Simultaneous, bilateral, shoulder dislocation, traumatic

Introduction

Anterior dislocation of shoulder is common dislocation found in orthopaedic practice. Common mechanism of injury is fall on outstretched hand. Simultaneous bilateral shoulder dislocations are rare. Among the bilateral simultaneous dislocations, commonly encountered are posterior dislocations, usually following either a following, electric shock or convulsions [1]. Shoulder dislocations are common because of unstable configuration of shoulder joint i.e, shallow glenoid with globular head , with wide range of movements in the joint predisposing for dislocation. Bilateral dislocations are also seen with associated fractures of humerus [2,3,4]. Here, we are reporting a case of simultaneous bilateral anterior dislocation (SBAD) of shoulder following fall. There are few reports of such cases in literature [2-6] and this report intends to add to the body of existing knowledge about this relatively rare entity.

Case Report

Our patient was 35 year old male who presented to emergency department with history of fall by tripping on a stone (fall on outstretched hand). Post trauma patient had pain and difficulty moving both the shoulders. Patient was a known alcoholic, with previous history of one episode of shoulder dislocation on right side about 2 years prior to the present episode, which was adequately treated with closed reduction and immobilisation for 3

[1]BIMS, Belgaum, Karnataka, India.

Address of Correspondence
Dr Mallangouda N Patil
BIMS, Belgaum, Karnataka, India.

E-mail: mnpatil@gmail.com

Author's Photo Gallery

Dr. Mallangouda N Patil

Journal of Orthopaedic Case Reports | pISSN 2250-0685 | eISSN 2321-3817 | Available on www.jocr.co.in | doi:10.13107/jocr.2250-0685.100

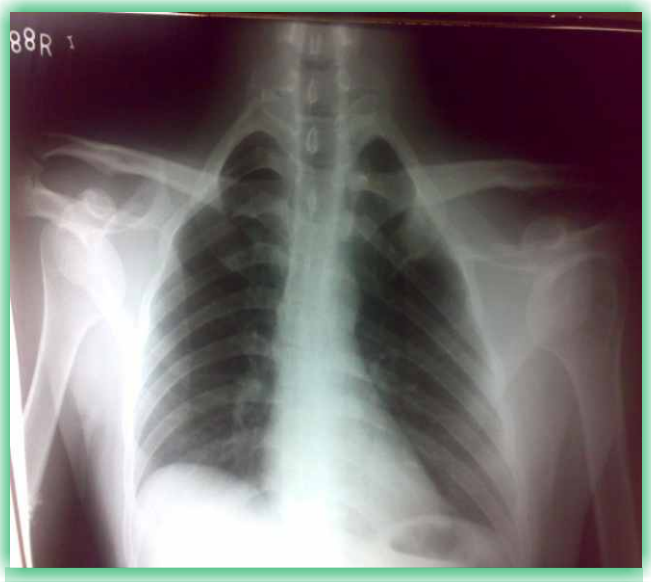

Figure 1 - Pre-op AP X-ray showing B/L shoulder dislocations

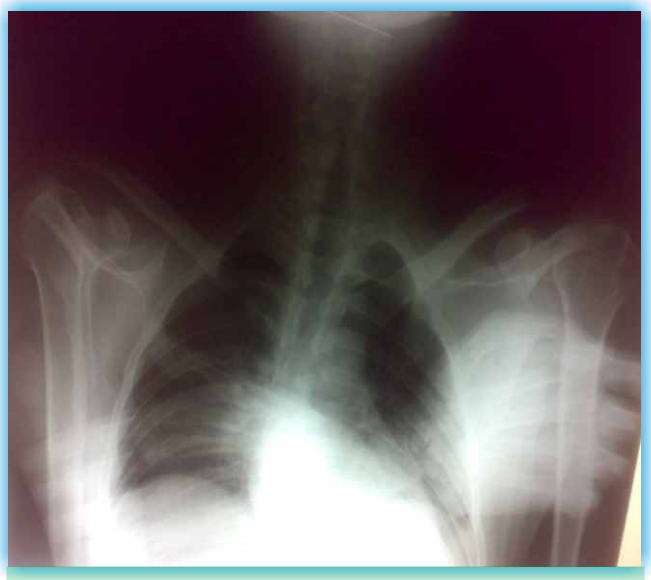

Figure 1 - Post-op AP X-ray of both shoulders.(Post reduction).

weeks. Patient does not give any history of convulsions (past or present) and no other neuro-muscular problems. On clinical examination, patient's both upper limbs were abducted and externally rotated. Bilaterally shoulder contour was lost with flattening. Other classical signs of shoulder dislocation viz, Bryants test, Callway sign, Hamilton's ruler test were positive. Radiographs of both shoulders were obtained and clinical diagnosis of SBAD was confirmed. Both shoulders were reduced in emergency operation theater under general anaesthesia by Kocher's method and were immobilized in sling. The left was immobilized with 90^0 elbow flexion and the right at 110^0 flexion for 3 weeks. Reduction was confirmed post operatively with X-rays. Intermitted assisted excercises where started from second week onwards and at the end of immobilization patient was advised vigorous supervised physiotherapy. By six week post injury patient had full range of adduction, flexion and internal rotation. Abduction up to 110^0 was possible. Patient was advised to be cautious while doing overhead activities especially which require abduction and external rotation of shoulder.

Discussion

Bilateral shoulder dislocation are commonly seen either secondary to convulsions or post electric shock. These are usually posterior dislocations but bilateral anterior dislocations with greater tuberosity fractures are also noted [7]. Dunlop et al [6] in his case report and review of literature, reported that most cases were associated with fractures. He also found that of the 44 cases, five were diagnosed late [8]. Reports of cases of lateral anterior dislocation of the shoulder without any fractures in a bench-pressing athlete [9] and during push ups [10] are noted. Singh and Kumar [11] reported a case of sequential bilateral anterior dislocation in which the left shoulder dislocated first due to trauma followed by atraumatic dislocation of the right shoulder. SBAD following self-fall are unusual and post reduction, they cause practical problems with day to day activities due to immobilisation position of both upper limbs [12]. Yashwantha et al focussed on the mechanism of injury and commented that forced extension, abduction and external rotation of the arm play most important role [12]. In our case the patient fell on outstretched hands and which may have led to forced extension and external rotation. Recent article by Ballestrosus et al reported a total of 70 cases from the review of literature and found some interesting findings [13]. They found that SBAD was common in young males and middle aged women and the most common cause was trauma (50%) followed by strong muscular contractions secondary to convulsions (37%). They stressed the point that SBAD are not rare and a radiological diagnosis must be stressed [d]. As stressed in this review and other reports [1-13] the treatment is similar to unilateral dislocation but practical difficulties due to immobilisation of both upper limb cause a lot of distress to the patient. Ballestrosus et al [13] proposed an early and aggressive rehabilitation program for better outcome in these patients. The prognosis does not differ from a unilateral case and follow up result seem to be dependent on severity of initial injury than the bilaterality of the injury.

Conclusion

SBAD are not common to find in clinical practice, but they

have to be diagnosed and adequately treated. Though bilateral shoulder dislocations are commonly posterior, usually either secondary to convulsions or electric shock, anterior dislocation has to be kept in mind, especially in post-traumatic injuries. SBAD also presents with practical problems immobilization and day to day care of patients. Hence these dislocations require special attention and proper care.

Clinical Message

Bilateral simultaneous posterior dislocations occur due to violent contractions while in contrast the anterior dislocation of shoulder occurs most commonly secondary to trauma. The treatment is similar to unilateral dislocation but with special attention on position of immobilization, faster and aggressive rehabilitation and patient care. .

Acknowledgment: The Author will like to acknowledge the Manuscript Assist & Publishing Service (MAPS) of Indian Orthopaedic Research Group for help in improving the manuscript content

References

1. Brown RJ. Bilateral dislocation of the shoulders. Injury 1984; 15:267–73 2

2. Mofidi M, Kianmehr N, Farsi D, Yazdanpanah R, Majidinezhad S, Asadi P. An unusual case of bilateral anterior shoulder and mandible dislocations. Am J Emerg Med. 2010 Jul;28(6):745.e1-2.

3. Bouras.y, Elandaloussi.y, nadil.M.A, Essarouli.A, Bennouna.D, Fadili.M,Quara.M; Bilateral anterior dislocation of shoulders(case report) (Luxation Antereure bilaterale des epaules chez le bodybuilder (a propos daeun cas. ; Journal de Traumatologie du Sport. 2009;26(4);247-249

4. Abalo A, Dosmin A, Songe B, Ayouba G; Bilateral anterior dislocation of the shoulders- A case report. Chirurgie De La Main 2008; 27(2-3);118-121

5. AH Botha, AB du Toit. Bilateral anterior shoulder dislocation: a case report of this rare entity. SA Orthopaedic Journal 9.4 (2010): 68-70.

6. Dunlop CC. Bilateral anterior shoulder dislocation--a case report and review of the literature. Acta Orthop Belg. 2002 Apr;68(2):168-70

7. Suryavanshib A, Mittal A, Dongre S, Kashyap N. Bilateral Anterior Shoulder Dislocation with Symmetrical Greater Tuberosity Fracture following Seizure. Journal of Orthopaedic Case Reports. 2012;2(1):28-31.

8. Sunku N, Kalaiah K, G. Marulasidappa, P. Gopinath.Greater Bilateral Anterior Fracture-Dislocation of Shoulder Joint. Journal of Orthopaedic Case Reports 2012 Oct – Dec ;2(4):7-9.

9. Cresswell TR, Smith RB. Bilateral anterior shoulder dislocations in bench pressing: an unusual cause. Br J Sports Medicine 1998; 32: 71

10. de la Fuente FA, Hoyte C, Bryant SM. Push-ups may be hazardous to your health: an atraumatic etiology for bilateral shoulder dislocation. Am J Emerg Med. 2008 Jan;26(1):116.e3-4

11.Singh S, Kumar S. Bilateral anterior shoulder dislocation: a case report. European Journal of Emergency Medicine2005 Feb;12(1),33-5.

12. Yashwantha KC, Nalini KB, Maini Lalit, Nagaraj P. Bilateral traumatic anterior dislocation of shoulder, a rare entity. Journal of Orthopaedic Case Reports 2013 Jan-March;3(1):23-25

13. Ballesteros R, Benavente P, Bonsfills N, Chacón M, García-Lázaro FJ. Bilateral anterior dislocation of the shoulder: review of seventy cases and proposal of a new etiological-mechanical classification. J Emerg Med. 2013 Jan;44(1):269-79.

Conflict of Interest: Nil
Source of Support: None

How to Cite this Article:
Patil MN. A Case of Simultaneous Bilateral Anterior Shoulder Dislocation. Journal of Orthopaedic Case Reports 2013 April-June;3(2):35-37