Neglected Anterior Dislocation of Shoulder: is surgery necessary? A Rare Case with review of literature.

Kunal Shah[1], Tushar Ubale[1], Harish Ugrappa[1], Samir Pilankar[1], Atul Bhaskar[1], Satishchandra Kale[1]

What to Learn from this Article?

Masterly inactivity can be a option in neglected shoulder dislocation where neocavity formation is seen with preserved functional range of movement .

Abstract

Introduction: Shoulder joint is the most frequently dislocated joint. However, it is rarely neglected and treatment is sought immediately. Delayed or neglected shoulder dislocations are difficult to manage and require extensive procedures to obtain good functional outcome. Very few cases are described in literature showing neglected shoulder dislocation with good functional range of movement. We report a case with 3 years of neglected anterior shoulder dislocation with preserved joint function.

Case Report: A 40 years old gentleman presented withfracture distal end of the radius (left). On clinical examination we observed that he had anterior dislocation of his left shoulder which was confirmed on radiographic evaluation. He had history of seizures 3 years back, which may be the cause of dislocation which went unnoticed. On examination he had good range of motion without any pain. Patient could perform all routine activities with no major functional limitation. At three years after dislocation CT Scan showed neocavity formation.

Conclusion: Neglected shoulder dislocation with preserved joint function without major functional limitation is a rare presentation. This condition should be kept in mind in patients with history of seizures. Proper evaluation and counseling of patients avoids extensive procedures and avoids complications of surgery. Observation can be a treatment option in patients with preserved range of movement especially involving non dominant handand having low functional demand. This report presents rare presentation of neglected shoulder dislocation highlighting its natural history and its outcome following conservative treatment.

Key Words: Neglected; Anterior Dislocation; Preserved Joint Function.

Introduction

Shoulder joint is the most frequently dislocated joint. Anterior shoulder dislocation constitutes 95% of all shoulder dislocations, mainly caused by trauma and posterior dislocation is caused by indirect trauma like violent muscular contractions seen in epileptic attack and electrocution. Unilateral shoulder dislocation is most common constituting 85% of all dislocations [1, 2]. Because of its typical presentation, it is rarely missed. Neglected shoulder dislocation presents with gross limitation of shoulder function and requires extensive procedures to obtain desired outcome. Also, there are many pathological changes in bony and soft tissue architecture in shoulder joint in case of neglected dislocations [3,4]. We present a rare case of anterior dislocation of shoulder following a seizure attack with preserved joint functions and no major functional limitation of joint function. In this report we bring this rare presentation of neglected shoulder dislocation

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Dr. Kunal Shah


Dr. Tushar Ubale


Dr. Harish Ugrappa


Dr. Samir Pilankar


Dr. Atul Bhaskar


Dr. Satishchandra Kale

[1]Department of Orthopaedics, R.n.cooper Municipal General Hospital, Bhaktivedanta Swami Marg, Juhu, Mumbai 400056.

Address of Correspondence
Dr. Kunal Shah,
Department of Orthopaedics, R.n.cooper Municipal General Hospital, Bhaktivedanta Swami Marg, Juhu, Mumbai 400056.
Email: orthokunal@yahoo.com

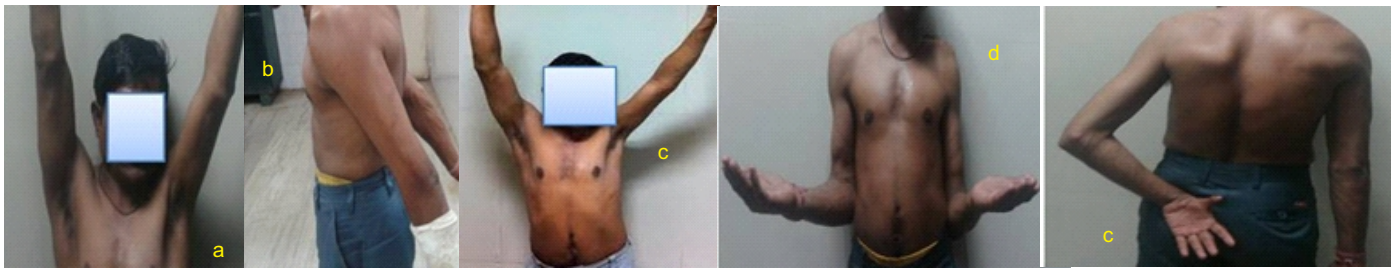

Figure 1 (a,b,c,d & e): Clinical photographs showing functional range of movement of shoulder joint

highlighting its natural history and its outcome following conservative treatment.

Case presentation

A 31 years old right hand dominant gentleman presented to our orthopedic specialty clinic with fracture distal end radius on left side. On further evaluation, there was deformity in ipsilateral shoulder joint and asymmetry was present as compared to opposite side. There was an anterior globular bony swelling palpable with well defined margins. Transmitted movements from humerus were present confirming it to be bony humeral mass. There was wasting of deltoid muscle as compared to opposite side. Range of motion were flexion upto 170 degrees (Fig 1A), extension up to 10 degree (Fig 1B), internal rotation up to L3 (Fig 1C), and external rotation up to 30 degree (Fig 1D) and abduction up to 120 (Fig 1E) in both active and passive movements, further movements were restricted and mildly painful. Patient did not have any history of significant trauma to shoulder in past .However he gave a history of seizure attacks three years back following which he had shoulder pathology. He had taken antiepileptic treatment; however no treatment was taken for the shoulder. There were no further epileptic episodes and he was taking antiepileptic treatment. Radiographs of shoulder joint were taken which confirmed anteriorly dislocated humeral head (Figure 2). Further views of shoulder joint were taken to check for any bony changes. They didn't show any significant abnormality. CT scan showed anteroinferior dislocation with neocavity with pseudojoint formation (Fig.3A,3B,3C). Chronic hillsachs lesion was also seen. MRI Scan showed anteroinferior shoulder dislocation with intact rotator cuff muscles (Fig.4A ,4B) Since the patient had good functional range of movement we explained him the treatment options. He opted for non surgical line of management. Hence was given shoulder mobilization exercises. Presently patient is being followed up with no fresh complaints and maintained joint movements.

Discussion

Anterior dislocation of shoulder unlike posterior dislocation is most commonly traumatic in nature. The mechanism of anterior dislocation following trauma is that greater tuberosity abuts against acromion when arm is abducted and extended, causing leverage forces leading head to come out of glenoidcavity [5]. Posterior dislocation secondary to seizure attack is caused due to imbalance between strong internal rotators and weak external rotators and deltoid. The cause of anterior dislocation following seizure is postulated to be direct trauma due to collapse of patient hitting the floor [6]. Anterior dislocation of shoulder is commonly missed after seizure because of its unusual occurrence, post seizure drowsiness and subsequent medical management[5].

The term chronic dislocation of shoulder is applied to condition where there is loss of recognition of injury for at least 3 weeks [7] or 4weeks [8]. Many authors have described chronic dislocation with varying amount of duration at presentation. Rowe and Zarin presented eight patients with anterior dislocation with seven patients presenting at 3 week to 2 year interval and one patient at 10 year duration [7]. Goga presented 31 patients with chronic anterior dislocation with longest duration of failed recognition at 2 years [9]. Postacchini and

Facchini presented five patients with 6 weeks as longest duration of failure of diagnosis[10].

Mansat et al showed five patients with 6 weeks to 3 years as the duration of missed diagnosis[11]. Mancini et al presented a case with 24 years of missed anterior shoulder dislocation [12]. Our case presented 10 years after the dislocation.

Treatment options for neglected shoulder dislocation include observation, manipulation, open reduction with or without allograft reconstruction, bankarts repair, capsulolabial repair and arthroplasty [7, 13]. Surgical treatment for chronic dislocations is

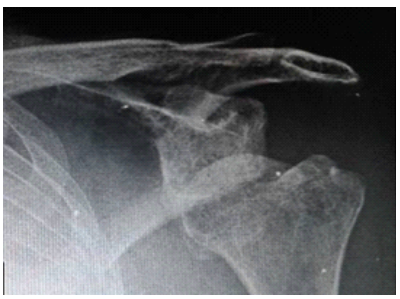

Figure 2: Radiograph of joint showng anteroinferior dislocation of shoulder joint

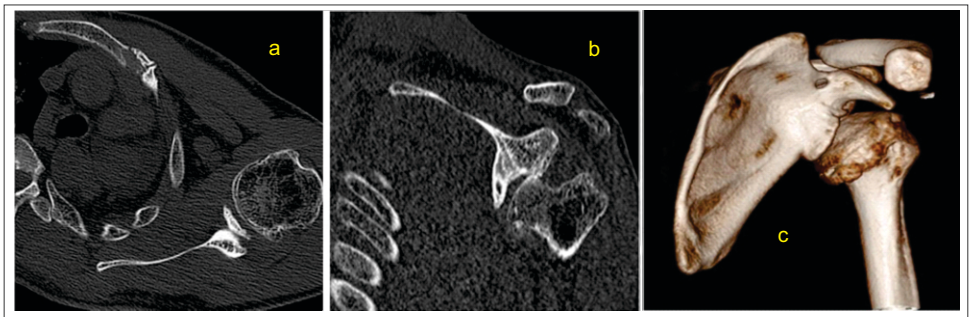

Figure 3 (a,b,c & e): CT Scan showing anteroinferior dislocation with neocavity formation.

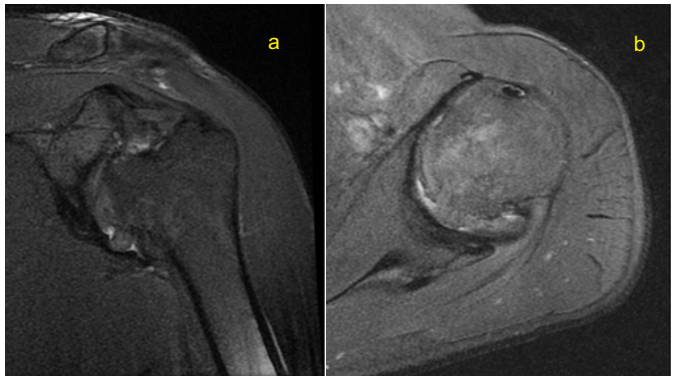

Figure 4 (a & b): MRI scan showing anteroinferior dislocation with intact rotator cuff muscles

usually advocated for better functional outcome, however the results can be poor and unsatisfactory[12].

Very few cases describe chronic dislocation of shoulder with good functional range of motion which were treated nonsurgically. Table shows epidemiological details of patients reported with asymptomatic neglected anterior shoulder dislocation. Essi et al showed a case with 15 years old neglected anterior shoulder dislocation in a 35 year old lady with good functional range of movement and neocavity formation leading to preserved movements [14]. Similar neocavity formation seen in a case described by Mancinni et al with 24 years of neglected dislocation ion a 74 year old lady with low functional demand [12]. Jerosch et al [3] presented a case of a young male with preserved movements 4 years after missed diagnosis. This case didn't show neocavity formation, but had a large Hill Sachs lesion which locked the head in dislocated position. In our case we found neocavity formation with large hill Sachs lesion.

Conclusion

Thus, we conclude that neglected shoulder dislocation after many years eventually leads to neocavity formation. Observation can be an option if patient presents late and surgical treatment is likely to have unsatisfactory results. Low demand patient with involvement of non dominant hand can be observed with good functional outcome.

Clinical Message

Neglected shoulder dislocation can present with neocavity formation and preserved joint function. In such cases, observation can be a treatment option especially when surgical option gives unsatisfactory result. This is particularly important in a patient with low demand occupation and non-dominant hand.

References

1. Devalia KL, Peter VK. Bilateral post traumatic anterior shoulder dislocation. J Postgrad Med. 2005 Jan-Mar;51(1):72-3.
2. Dodson CC, Cordasco FA. Anterior glenohumeral joint dislocations. Orthop Clin North Am. 2008 Oct;39(4):507-18, vii.
3. Abdelhady AM. Neglected anterior shoulder dislocation: open remplissage of the Hill-Sachs lesion with the infraspinatus tendon. Acta Orthop Belg. 2010 Apr;76(2):162-5.
4. Jerosch J, Riemer R, Schoppe R. Asymptomatic chronic anterior posttraumatic dislocation in a young male patient. J Shoulder Elbow Surg. 1999 Sep-Oct;8(5):492-4.
5. Dinopoulos HT, Giannoudis PV, Smith RM, Matthews SJ. Bilateral anterior shoulder fracture-dislocation. A case report and a review of the literature. Int Orthop. 1999;23(2):128-30.
6. O'connor-Read L, Bloch B, Brownlow H. A missed orthopaedic injury following a seizure: a case report. J Med Case Rep. 2007 May 10;1:20.
7. Rowe CR, Zarins B. Chronic unreduced dislocations of the shoulder. J Bone Joint Surg Am. 1982 Apr;64(4):494-505.
8. Souchon E. Operative treatment of irreducible dislocation of the shoulder joint, recent or old, simple or complicated. Trans Am Surg Assoc. 1891;15:311–442.
9. Goga IE. Chronic shoulder dislocations. J Shoulder Elbow Surg. 2003 Sep-Oct;12(5):446-50.
10. Postacchini F, Facchini M. The treatment of unreduced dislocation of the shoulder. A review of 12 cases. Ital J Orthop Traumatol. 1987 Mar;13(1):15-26.
11. Mansat P, Guity MR, Mansat M, Bellumore Y, Rongières M, Bonnevialle P.[Chronic anterior shoulder dislocation treated by open reduction sparing the humeral head]. Rev Chir Orthop Reparatrice Appar Mot. 2003Feb;89(1):19-26.
12. Mancini F, Postacchini R, Caterini R. Asymptomatic anterior shoulder dislocation of 24-year duration. J Orthop Traumatol. 2008 Dec;9(4):213-6.
13. Rouhani A, Navali A. Treatment of chronic anterior shoulder dislocation by open reduction and simultaneous Bankart lesion repair. Sports Med Arthrosc Rehabil Ther Technol. 2010 Jun 16;2:15.
14. Essi FA, El AY, Benhima MA, Rafai M, Largab A. [A case of neglected shoulder anterior dislocation with preservation of joint function]. Chir Main. 2006 Jun;25(2):96-9.

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