Voluntary Inferior Shoulder Dislocation in a Seven Year Old Child- A Case Report

Mahesh M Choudhary[1], Shefali Gupta[1]

Abstract

Introduction: Cases of shoulder instabilty have been rarely reported in literature. The diagnosis is made when a person is able to dislocate one or both shoulders in one or more directions at will, in the absence of any significant previous trauma. The present case had a full painless range at shoulder joint with voluntary demonstration of dislocation without any functional deficit. Though various surgical procedures do exist for management of such instabilities, skillfull neglect combined with a trial of conservative treatment should precede any surgical intervention. We report a case of inferior habitual shoulder dislocation in a seven year male child.

Case Report: A seven year old male child was brought to the outpatient department by his mother complaining that the child is able to show a bony mass voluntarily in his axillary region and again put it into place voluntarily. Mother reported that the child was able to perform this magical game since five years of age. The child did not have any history of trauma or infection since birth. Also there was no history of any other congenital malformation in the body of the child. Clinical examination as well as investigations did not reveal any abnormality. As the child was functionally normal, and parents unwilling for surgical intervention he was managed conservatively.

Conclusion: Voluntary dislocation of shoulder in children is a rare entity with benign course and no functional handicap in adulthood, hence trial of conservative management is rational and unnecessary prophylactic surgery may be avoided.

Keywords: Voluntary; inferior; dislocation; instability; skillful; neglect.

Introduction

Voluntary shoulder dislocation has been reported as long as 1722 by Portal, yet until Rowe et al in 1973 (1) described 26 cases there have been very few reports on this condition. The diagnosis is made when a person is able to dislocate one or both shoulders in one or more directions at will, in the absence of any significant previous trauma. A review of literature would suggest that gleno humeral dislocation in children less than 12 years old is very rare (2, 3, 4). We present a case of voluntary inferior shoulder dislocation in a 7- year-old patient.

Case Report

A seven year old male child was brought to the outpatient department by his mother complaining that the child is able to show a bony mass voluntarily in his right axillary region and again put it into place voluntarily. Mother reported that the child was able to perform this magical game since five years of age. The child did not have any history of trauma or infection since birth. Also there was no history of any other congenital malformation in the body of the child.

The clinical assessment of child showed that there was a full range of movement of right shoulder which was painless. There was no abnormality in the shoulder contour at rest and all bony structures that is acromion, clavicle and humeral head were apparently normal.

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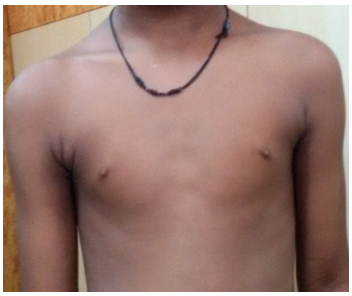

Figure 1. Anterior view in neutral position of shoulder.

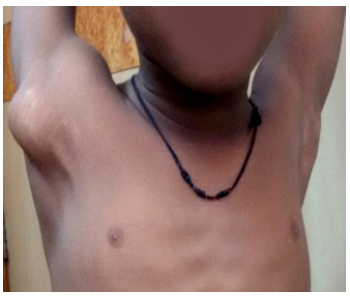

Figure 2. Anterior view in dislocated position of right shoulder.

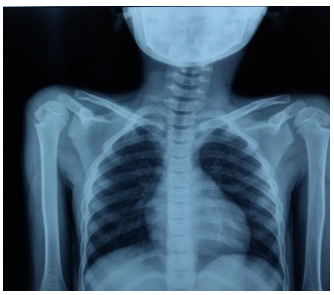

Figure 3. Normal anteroposterior x ray shoulder .

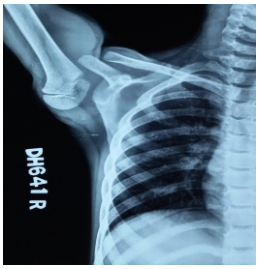

Figure 4. Anteroposterior view in dislocated position of right shoulder.

Apprehension test was negative and anterior and posterior drawers test was positive. The child demonstrated the same manoeuvre on demand and post reduction shoulder examination was unremarkable (Fig. 1 and 2). There was no neurovascular deficit in the right upper limb. Examination of other joints for laxity was negative.

Though the history and clinical examination was suggestive of voluntary shoulder dislocation, he was further investigated with X-rays and MRI scan of the right shoulder. X-rays done in normal as well as the dislocated position did not show any evidence of trauma or glenoid abnormality (Fig. 3 and 4). MRI scan did not reveal any abnormality (Fig. 5, 6,7). EMG study for muscle abnormality was normal.

Patient's parents were informed regarding the condition and were asked to follow up for physiotherapy and surgical options at our hospital. They were of the opinion that the child is functionally capable with the right upper limb now, hence would follow up for conservative management, but were not keen for any operative intervention.

Discussion

Voluntary or habitual dislocation of shoulder in children is rare. A review of literature shows that the cases of instability in children are common in between ages six and 16 and more common when they reach adolescence (2, 3, and 4). The ability to voluntarily displace the humeral head forward, backward, or inferiorly out of the glenoid is seen when patient achieves abnormal control over some shoulder muscles and is performed by stabilizing the scapula against the thorax (by the rhomboids) and activating one-half of a force couple of the shoulder while the other half (antagonists) are inhibited (5,8).. Neer and Foster treated 40 involuntary and Lefort G et al. 29 voluntary shoulder instability cases by capsular shift procedures [3,4,6,7]. This technique offers the advantage of correcting shoulder instability through one incision without any damage to the articular surface with good results. Even though their results are encouraging, they suggested that their technique should be used only after the conservative treatment has failed. Harry Huber and Christian Gerber in their study of 25 children with voluntary dislocation of shoulder followed up for a period of eleven years have concluded that voluntary dislocation of shoulder has a favourable prognosis and that there is no indication for surgical intervention in childhood (9,10).

Conclusion

Voluntary dislocation of shoulder in children is a rare entity with benign course and no functional handicap in adulthood, hence trial of conservative management is rational and unnecessary prophylactic surgery may be avoided.

Clinical Message

Though rare cases of voluntary shoulder dislocations do present to outpatient department. Thorough clinical evaluation and assessment of functional deficit before formulating a plan of management is crucial as most of them do well with skillful neglect and non-operative management.

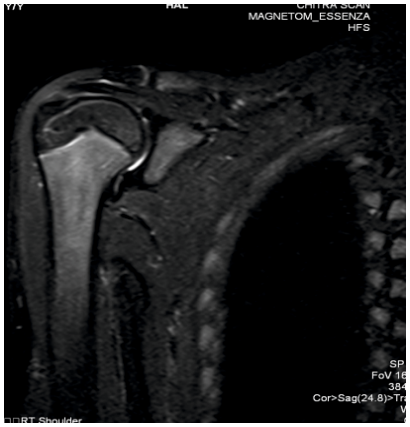

Figure 5. Stir coronal image of right shoulder showing supraspinatus tendon and muscle belly.superior and inferior labrum appears normal. Minimal fluid seen in glenohumeral joint.

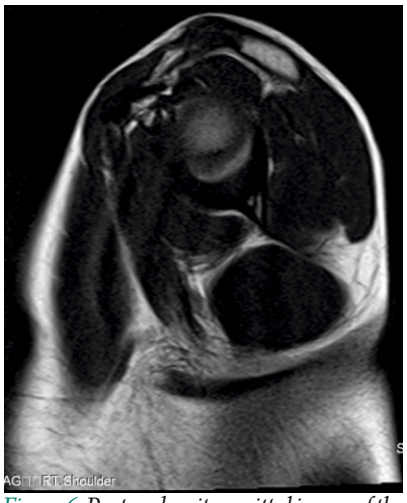

Figure 6. Proton density sagittal image of the shoulder showing intact superior bicipital labral complex.

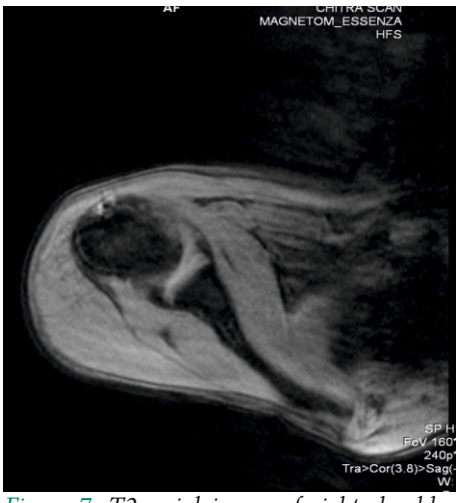

Figure 7. T2 axial image of right shoulder showing the intact anterior and posterior structures.

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