Transitory Inferior Dislocation of Shoulder in a Child After Humerus Fracture

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ABSTRACT

A case of transitory inferior shoulder dislocation in 12 years old boy is reported. He fell from bicycle and injured his left shoulder region. X-ray revealed mildly displaced fracture of the surgical neck of left humerus. Arm sling was applied on fractured side and analgesics were prescribed for pain. As routine follow-up, X-rays were repeated after one week, alignment of fracture was good but humeral head was dislocated inferior to glenoid. This dislocation was not in immediate post-injury radiograph. Transitory inferiorly dislocation of shoulder is very rare in children.


INTRODUCTION

Trauma is the most common cause of shoulder dislocation. Traumatic inferior dislocation is rare accounting for < 1% of all shoulder dislocations. Other form of inferior dislocation is transitory inferior dislocation. It is well documented in adults after shoulder surgery. The incidence of transitory inferior shoulder subluxation is 10 - 60% depending upon mechanism of injury. Unlike true fracture-dislocation, it requires only the support of arm to keep the joint reduced within joint cavity. In children, transitory inferior dislocation is very rare; only 1 case in 2004 has been registered.

This report describes a rare case of transitory inferior dislocation in 12 years boy after sustaining humerus surgical neck fracture. This dislocation is not due to trauma but it is transient, occurring spontaneously after trauma.

CASE REPORT

A young boy, 12 years of age, fell down from bicycle and injured his left shoulder in October 2012. He was brought in accident and emergency department. Patient was evaluated according to ATLS protocol. There was pain and swelling around the shoulder but distal neurovascular function was intact. X-ray revealed a mildly displaced fracture of the surgical neck of humerus (Figure 1). Fracture alignment was acceptable. Arm sling was applied.

As routine follow-up, X-rays were repeated after one week. The fractured segments were in good alignment but the left humeral head was dislocated inferiorly (Figure 2). In the first X-rays, it was located properly in the glenoid fossa but now it was dislocated inferiorly. X-ray were repeated with elbow supported; shoulder joint was found relocated with humeral head placed in the glenoid cavity (Figure 3).

Sling was re-applied with good elbow support for 3 weeks. Shoulder exercises were started after 4 weeks and he had good range of movements in follow-up visits.

DISCUSSION

Traumatic inferior dislocation of shoulder is rare but has a unique history and specific presentation. However, another type of inferior dislocation is transitory inferior dislocation which occurs in adults after rotator cuff surgery. In contrast to traumatic inferior dislocation which may cause serious complications like axillary nerve palsy and rotator cuff injuries, transitory inferior dislocation has a lower complication rate. Transitory inferior dislocation is an exaggerated presentation of well known transient inferior subluxation which can be seen within 2 weeks (not immediately) of surgery or humerus fracture but only in adults. The cause of this subluxation or dislocation may be large effusion or partial atony of muscles of rotator cuff.

Transitory inferior dislocation is very rare phenomenon in children. Literature review shows only one transitory inferior shoulder dislocation in14 years girl.

The presently reported patient presented with post-traumatic upper humerus fracture which was not associated with shoulder dislocation. Fracture alignment was good, so arm sling was applied without manipulation and the inferior dislocation was found on follow-up. Patient denied any type of manipulation or sign/symptom of infection. Other local and general causes of spontaneous causes of dislocation of shoulder were excluded. Dislocation was reduced with elbow pushing up and it was confirmed by X-ray. As standard management, arm sling was continued for 3 weeks with well elbow support. Boy had very good healing of fracture and range of movements on the fractured side.
Awareness of this phenomenon of transitory dislocation, avoid more aggressive reduction and complications of anaesthesia and apprehension of parents.

REFERENCES