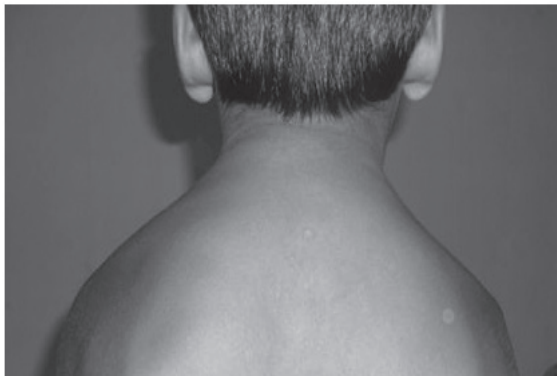


## SPOT DIAGNOSIS (IMAGE GALLERY)



### **A RARE CONGENITAL DEFORMITY OF THE SHOULDER**

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A 14 years boy with normal developmental milestones presented with prominence of both his shoulder blades for the last few years interfering with the movements of both shoulders (shoulder elevation < 60 degree on both sides). There was prominence (winging) of both the scapula with a higher in position than normal (Figure 1). He was short and had bilateral webbing of neck. There was bilateral atrophy of supraspinatus, infraspinatus and deltoid muscle. No features of neuropathy or myelopathy were noted.

#### **What is the likely diagnosis?**

Bilateral Sprengel Shoulder. Sprengel deformity is a complex anomaly that is associated with malposition and dysplasia of the scapula. (1) It is the most common congenital malformation of the shoulder girdle. (2) The scapula is originally a cervical appendage that descends to the thorax by the end of the third month of intrauterine life. Failure of descent of the scapula from the C5-T1 position to the T2-T7 position results in the deformity. (3) An arrest in the development of bone, cartilage, and muscle accompanies. The trapezius, rhomboid, or levator scapulae muscle may be absent, hypoplastic, or contain multiple fibrous adhesions. Weakness of serratus anterior may lead to winging of the scapula. Other muscles may also be hypoplastic. There is limited scapulothoracic motion and limited shoulder abduction. (4) Antero-posterior radiography of the chest and shoulders usually diagnoses the condition. (5) In mild cases treatment is generally unnecessary. Physical therapy and exercises may be used. Surgery may be required (in patients more than 6 years of age) with significant cosmetic concerns and significant restriction of shoulder abduction. (6) .

#### **References**

1. Mooney JF 3rd, White DR, Glazier S. Previously unreported structure associated with Sprengel deformity. *J Pediatr Orthop.* 2009;29:26-8
2. Grogan DP, Stanley EA, Bobechko WP. The congenital undescended scapula. Surgical correction by the Woodward procedure. *J Bone Joint Surg Br.* 1983; 65: 598-605.
3. Crenshaw AH (ed). In Campbell's Operative Orthopedics. 7th edn. Mosby. St Louis, Mo, USA. 1987:2764
4. Cornwall R. Sprengel deformity. Kliegman RM, Behrman RE, Jenson HB, Stanton BF. In: *Nelson Text of Pediatrics.* 18th Edn. Saunders Elsevier Philadelphia.2007: 2826-27
5. Ogden JA, Conlogue GJ, Phillips MS, Bronson MI. Sprengel's deformity. Radiology of the pathological deformation. *Skeletal Radiol.* 1979;4(4):204-11
6. Thacker MM. Sprengel Deformity. (Internet). 2008. Available at: [www.emedicine.com/Orthoped/topic445.htm](http://www.emedicine.com/Orthoped/topic445.htm) (Accessed 5th September 2008)

**Funding :** None

**Conflict of Interest :** None

**E-published:** July-September2015. **DOI No. :** 10.7199/ped.oncall.2016.2

