Journal of Community Hospital Internal Medicine Perspectives

co-action PUBLISHING

IMAGING COLUMN

Winged scapula in a man with new neck pain and shoulder weakness

Kimberly Aderhold, DO*, Priya Rajagopalan, MD, Rittu Hingorani, MD and Richard Alweis, MD

Department of Internal Medicine, Reading Hospital & Medical Center, West Reading, PA, USA

*Correspondence to: Kimberly Aderhold, Department of Internal Medicine, Reading Hospital & Medical Center, West Reading, PA, USA, Email: kimberly.aderhold@readinghealth.org

Received: 30 September 2015; Revised: 2 December 2015; Accepted: 4 December 2015; Published: 17 February 2016

Unilateral scapular winging most commonly results from neuropathy of the long thoracic nerve that innervates the serratus anterior muscle (1, 2). We present a case illustrating a patient with a "winged scapula" on the left side (Fig. 1).

A winged scapula is the protrusion of the vertebral border of the scapula. The circuitous course of the long thoracic nerve predisposes it to injury or impingement. It may also rarely arise from a lesion of the accessory nerve or the dorsal nerve of the scapula, affecting the trapezius or rhomboids, respectively (1). Important etiologies causing nerve palsy include compression injury, trauma, vigorous exercise causing traction, or viral illnesses. At times the cause may be idiopathic (1, 3, 4). The condition is invariably missed on initial presentation due to lack of suspicion and rarity of presentation (3). Diagnosis is essentially clinical and should be considered in any patient presenting with shoulder pain or weakness, as delay in recognition may cause permanent disability (1, 3). In our case, inspection was positive for a subtle prominence of the medial border of the scapula with accentuation on abduction of arm.

A majority of patients respond to conservative treatments involving physical therapy and range of motion exercises (2, 3). If conservative treatment fails over the course of 6 months to 1 year, surgical intervention may be considered (2). Failure to respond or worsening of symptoms requires further investigations such as electromyography and MRI (3). Since the long thoracic nerve branches off of the brachial plexus, it is important to rule out cervical nerve impingement, specifically impingement of C5–C7. This can be a serious etiology of scapular winging which can produce progressive weakness and may require surgical intervention (3). MRI of the cervical spine is vital to define the nature, site, and degree of

Fig. 1. Protrusion of the left scapula, illustrating scapular winging.

Citation: Journal of Community Hospital Internal Medicine Perspectives 2016, **6**: 29918 - http://dx.doi.org/10.3402/jchimp.v6.29918

(page number not for citation purpose)

compression of the nerve roots contributing to the presentation of scapular winging (3).

Disclaimer

The views expressed in this report are that of the authors alone and not of any other institution.

Conflict of interest and funding

The authors declare that there is no conflict of interest regarding the publication of this paper. There were no other sources of support including grants, equipment, or drugs utilized in the making of this report.

References

1. Maire N, Abane L, Kempf J-F, Clavert P, French Society for Shoulder and Elbow SOFEC. Long thoracic nerve release for scapular winging: Clinical study of a continuous series of eight patients. Orthop Traumatol Surg Res 2013; 99(6 Suppl): S329–35.
2. Martin RM, Fish DE. Scapular winging: Anatomical review, diagnosis, and treatments. Curr Rev Musculoskelet Med 2008; 1(1): 1–11.
3. Belville RG, Seupaul RA. Winged scapula in the emergency department: A case report and review. J Emerg Med 2005; 29(3): 279–82.
4. Shimizu J, Nishiyama K, Takeda K, Ichiba T, Sakuta M. [A case of long thoracic nerve palsy, with winged scapula, as a result of prolonged exertion on practicing archery]. Rinshō Shinkeigaku Clin Neurol 1990; 30(8): 873–6.