

# Lateral Torticollis: Report of a Case Complicated by Horner's Syndrome

## Lateral Tortikolis: Horner Sendromu ile Komplike Olan Bir Olgu Sunumu

Abdulkadir KOÇER, Mehmet Eryılmaz\*, Ayşe KARATAŞ\*\*, Şeyma ÖZDEM\*

Bezmialem Vakıf Üniversitesi Tıp Fakültesi, Nöroloji Anabilim Dalı, İstanbul, Türkiye

\*Düzce Üniversitesi Tıp Fakültesi, Nöroloji Anabilim Dalı, Düzce, Türkiye

\*\*Düzce Üniversitesi Tıp Fakültesi, Beyin Cerrahisi Anabilim Dalı, Düzce, Türkiye

### Summary

We report a 53-year-old female patient with involuntary head rotation to the right. The diagnosis of spasmodic torticollis with shoulder elevation causing the head rotation to the right side and partial Horner's syndrome (HS) were established. Complaints of the patient relieved after Botulinum toxin treatment. Ptosis and miosis ameliorated. This case suggested that the signs of HS in our patient were associated with lateral torticollis. *Türk J Phys Med Rehab* 2011;57 Suppl 2: 369-70.

**Key Words:** Torticollis, Horner syndrome, ptosis, botulinum toxin

### Özet

Başında istemsiz olarak sağa rotasyonu olan 53 yaşında kadın hasta sunulmaktadır. Başın sağa dönmesi ve parsiyel Horner sendromu (HS) işaretleri varlığı ile ilişkilendirilen omuzun elevasyonu ile birlikte olan spazmotik tortikollis tanısı kondu. Botulinum toksin tedavisi sonrasında hastanın yakınmaları rahatladı. Pitoz ve miyozu düzeldi. Bu olgu hastamızdaki HS bulgularının lateral tortikolis ile ilişkili olduğunu düşündürdü. *Türk Fiz Tıp Rehab Derg* 2011;57 Özel Sayı 2: 369-70.

**Anahtar Kelimeler:** Tortikolis, Horner sendromu, pitoz, botulinum toksini

### Introduction

Horner's syndrome (HS) is a rare condition results from loss of sympathetic innervations of the eye. Lesions, such as aneurysms, arterial pseudo aneurysms, some syndromes and trauma affecting the cervical chain and the sympathetic fibers may cause HS (1,2). HS may also result from fibrosis secondary to radiotherapy. Compression of the carotid sheath after thyroid operation or compressions associated with benign thyroid pathologies are the other reported rare causes of HS (3,4). In this article, we present a case of HS with lateral torticollis and shoulder elevation.

### Case

A 53-year-old female patient attended to our neurology outpatient clinic with complaints of dryness on the left side of her

face and involuntary head rotation to the right. The diagnosis of spasmodic torticollis with shoulder elevation causing head rotation to the right side and signs of partial HS (partial ptosis, miotic pupil and sweating problem) was established according to her neurological examination. Magnetic resonance imaging (MRI) of the cranial and cervical regions and cervical Doppler ultrasound examination were normal. While the causes of acquired torticollis were being investigated, the patient was followed up with the diagnosis of adult-onset torticollis which was limited to the cervical region. It was thought that HS was because of dystonic head posture with right shoulder elevation. She was first given high doses of baclofen (up to 80 mg tablet/day). After the therapy with spasmolytic regimens failed, Botulinum toxin 150 IU, 200 IU and 100 IU were injected to the left sternocleidomastoid (SCM), left splenius capitis (SC) and the right trapezius muscles, respectively. Amelioration of patient complaints in terms of decrease of shoulder

elevation, reduction of neck spasm by 80% and improvement of HS signs were observed two weeks after botulinum toxin injection. Ptosis and miosis recovered and anhidrosis disappeared.

## Discussion

Stroke is the most common cause of HS in neurology clinics as other traumas in surgery departments (5). When the etiology is not known and clinical information permits a targeted imaging evaluation, an etiology can usually be determined, most commonly a cervical carotid artery dissection, a cavernous sinus mass, mass in the neck, deep neck infections or thyroid malignancy (5,6). In a case report, Sharma et al. (7) discussed cervical esophageal duplication in its isolated form causing torticollis and presented a 3-year-old male patient who had cystic duplication of the esophagus in the neck associated with the cervical vertebral defect and HS. HS was reported as a rare complication of central venous catheterization attempts. Sari et al. (8) reported that ptosis and anisocoria as well as clinical signs were ameliorated partially one week after the catheter was removed.

Anhidrosis over half of the face and anisocoria, increasing in darkness, were present in our patient. In our case, pupil dilatation associated with super sensitivity was observed in testing with apraclonidine and, anisocoria reversed as expected (9,10). Neurological examination of the patient was normal except for partial HS signs. Ultrasound examination focused on the neck was also normal. In our case, it was thought that neck rotation associated with the contraction of SCM due to the anatomic relationship and neighborhood, caused HS. This was the first report in the literature.

Nowadays, botulinum toxin-A injections are widely used for the treatment of dystonia (11). In our case, HS signs disappeared following improvement in dystonia, three weeks after botulinum toxin-A injection into left SCM, left SC and the right trapezius

muscles. As a result, when considering the improvement achieved in the clinical signs after botulinum toxin-A injection, it was thought that HS in our patient was associated with lateral torticollis accompanied with shoulder elevation.

## References

1. Walton KA, Buono LM. Horner Syndrome. *Curr Opin Ophthalmol* 2003;14:357-63.
2. Mahoney NR, Liu GT, Menacker SJ, Wilson MC, Hogarty MD, Maris JM. Pediatric Horner Syndrome: Etiologies and roles of imaging and urine studies to detect neuroblastoma and other responsible mass lesions. *Am J Ophthalmol* 2006;142:651-9.
3. Girod DA, Bigler SA, Coltrera MD. Riedel's thyroiditis: report of a lethal case and review of the literature. *Otolaryngol Head Neck Surg* 1992;107:591-5.
4. Yasmeen T, Khan S, Patel SG, Reeves WA, Gonsch FA, de Bustros A, et al. Riedel's Thyroiditis: Report of a case complicated by spontaneous hypoparathyroidism, recurrent laryngeal nerve injury, and Horner's syndrome. *J Clin Endocrinol Metab* 2002;87:3543-7.
5. Almog Y, Gepstein R, Kesler A. Diagnostic value of imaging in Horner syndrome in adults. *J Neuroophthalmol* 2010;30:7-11.
6. Belet N, Tapisız A, Uçar Y, Çiftçi E, Fitöz S, Ince E, Doğru Ü. Deep neck infections in children. *J Pediatr Inf* 2007;1:58-62.
7. Sharma KK, Ranka P, Meratiya S. Isolated cervical esophageal duplication: a rarity. *J Pediatr Surg* 2005;40:591-2.
8. Sari I, Aybal A, Eser B, Ünal A, Altuntaş F, Ünal A, Çetin M. Horner's syndrome secondary to internal jugular catheterization: A case report. *Erciyes Med J* 2006;28:230-2.
9. Mughal M, Longmuir R. Current pharmacologic testing for Horner syndrome. *Curr Neurol Neurosci Rep* 2009;9:384-9.
10. Petrovic P, Avramov S, Pfau J, Fabri M, Obradovic J, Vukobratov V. Surgical management of extracranial carotid artery aneurysms. *Ann Vasc Surg* 1991;5:506-9.
11. Parman Y, Matur Z. Botulinum toxin type-A applications for extremities. *Arch Neuropsychiatr* 2006;43:20-3.

Copyright of Turkish Journal of Physical Medicine & Rehabilitation / Türkiye Fiziksel Tip ve Rehabilitasyon Dergisi is the property of Galenos Yayinevi Tic. LTD. STI and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.

Copyright of Turkish Journal of Physical Medicine & Rehabilitation / Türkiye Fiziksel Tip ve Rehabilitasyon Dergisi is the property of Galenos Yayinevi Tic. LTD. STI and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.