Case Report

The Tip Of The Iceberg: Mediastinal Schwannoma Presenting As Horner’s Syndrome

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Abstract

A 43-year-old woman presented with a right-sided ptosis, miosis and facial anhidrosis. She was aware of her ptosis for the past year but did not seek for medical attention. Cocaine test was positive for Horner’s syndrome. A mass lesion was detected in the upper part of the posterior mediastinum. Surgical resection was performed and the histopathologic examination was compatible with a schwannoma. The most common tumors associated with Horner’s syndrome are lung (Pancoast) and breast cancers. Horner’s syndrome is not an early sign of these tumors. Mediastinal schwannoma has been reported in rare cases presented with Horner’s syndrome.

Keywords: Horner's syndrome, schwannoma, mediastinum, magnetic resonance imaging

INTRODUCTION

Horner’s syndrome results from disruption of the sympathetic innervations to the eye and ocular adnexae. It occurs in anywhere along its three-neuron course. Classically the clinical triad includes ipsilateral ptosis, miosis and anhydrosis. Schwannomas, also known as neurilemmomas, are benign uncommon tumors arising from peripheral nerves in spinal root, acoustic nerve, the extremities, the body, trunk and neck.¹,² They occur in any somatic or sympathetic nerve and characterized by solitary occurrence, slow growth rate and smooth surface. Up to 45% of schwannomas occur in the head and neck region.³ They have been associated with Horner’s syndrome in limited number of cases in the literature.⁴-⁶ To our knowledge mediastinal schwannoma has been reported in rare cases presented with Horner’s syndrome.²,³

CASE PRESENTATION

A 43-year-old woman presented with a right-sided ptosis, miosis and facial anhydrosis (Fig.1) She has been aware of her ptosis for the past year but did not seek for medical attention. Her past history was unremarkable. On examination, her visual acuity was 20/20 in either eye. Ocular ductions and vergences were normal. She had anisocoria with the right
pupil 2 mm smaller than the left in ambient light. Slit-lamp examination of the anterior segment and intraocular pressures were within normal limits. Fundus examination revealed normal optic disc and macula bilaterally. Cocaine testing was positive for a right-sided Horner’s syndrome. Physical examination and rest of the neurologic examination were normal (Fig. 2).

Chest x-ray revealed a mass lesion in the right side of the supero-posterior mediastinum. Magnetic resonance imaging (MRI) showed a homogenous mass in the same location with a low-intermediate signal intensity on T1-weighted images and high signal intensity on T2-weighted images (Fig. 3). Surgical resection of the tumor was performed and the tumor was completely removed. The histopathologic examination showed microscopically the characteristic histological features for a schwannoma. No recurrence of the tumor was observed one year after the complete removal. Miosis of the right eye had partially resolved but ptosis remained unchanged in the last visit after one year later.

DISCUSSION
The most common tumors associated with Horner’s syndrome are lung (Pancoast) and breast cancers. Horner’s syndrome is not an early sign of these tumors but can be seen during the course of the disease. The tumor is solitary, encapsulated and appears to arise focally on a nerve trunk.
It has a slow growth rate. Surgical removal is the first choice of the treatment and if complete resection is achieved, no recurrence should be expected.\(^{(7,8)}\) Malign transformation of benign schwannoma has been still controversial. The patient presented here had signs of Horner’s syndrome one year before the diagnosis of a schwannoma was made.

In summary, although posterior mediastinal schwannoma is a rare clinical entity, it should be considered in the differential diagnosis of Horner’s syndrome. It is essential for the ophthalmologist to be familiar with sympathetic pathway of the eye and its related structures, since it may be a manifestation of a life-threatening condition.

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**REFERENCES**


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