**INTRODUCTION**

Vocal fold paralysis may occur for a wide range of reasons, from cardiac chamber enlargement, intoxication by chemical products, and mediastinal, neck, lung and intracranial tumors.

Given the vast array of possibilities and the various points where the vagus and recurrent laryngeal nerves (the latter is a branch of the first and innervates most laryngeal intrinsic muscles) may be injured, often times complementary tests are required to reach a diagnosis.

The glossopharyngeal nerve is both a sensitive and motor entity that emerges from the posterior lateral sulcus of the bulb and exits the skull through the jugular foramen. The hypoglossal nerve emerges from the posterior lateral sulcus of the bulb and exits the skull through the hypoglossal canal. Therefore, expansive lesions affecting any of these nerves may involve the adjacent cranial nerves by compression.

**CASE PRESENTATION**

Patient SMNS, 55, female, Caucausian, came to our service complaining of closed throat and dysphonia episodes that had been affecting her for the past four months. She reported itchy throat, sensation of pharyngeal globus, and dry cough. She had been seen by an orthopedist to manage pain and reduced strength on the right shoulder.

Physical examination revealed edema of the right supraclavicular region; indirect laryngoscopy showed right paramedian vocal fold paralysis. Right vocal fold paralysis consequent to a probable lung apex injury was considered as a diagnostic possibility. The patient was asked to undergo nasal fibroscopy and to have neck, and chest CT scans made. She came back two months later without the ordered tests. Physical examination showed shoulder asymmetry, the right shoulder being higher than the left shoulder, right vocal fold paralysis, and tongue deviated to the right. Diagnostic hypothesis was involvement of X, XI, and XII cranial nerves due to brain tumor. Emergency head MRI scans were ordered.

The patient’s MRI scans (Fig. 1) showed a tumor in the transition between the bulb and the pons compressing the IX, X, XI, and XII cranial nerves, possibly a schwannoma. She was referred to the neurosurgery and had her jugular foramen operated via the transmastoid approach. Skull Base Surg 1999;9:57-63. The tumor was a schwannoma.

The patient improved from her symptoms with speech therapy, but still 10 months into follow-up she sustains deficits in the affected cranial nerves.

**DISCUSSION**

Jugular foramen tumors must be considered in the etiologic diagnosis of vocal fold paralysis, particularly in cases where signs or symptoms associated with the involvement of another cranial nerve are present.

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**CASE REPORT**

**Glossopharyngeal schwannoma causing vocal fold paralysis**

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**Keywords:** glossopharyngeal nerve, schwannoma.

**Figure 1. Preoperative MRI images (A and B - axial views, and C and D - coronal views) showing lesion location and size.**

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