Schwannoma of the tonsil

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Abstract

Between 25 and 48% of schwannomas have been reported to occur in the head and neck region; the acoustic nerve is involved in most cases. Schwannomas arising in the tonsil are extremely uncommon. We report a case of tonsillar schwannoma in a 23-year-old woman. We also review the literature on this rare entity.

Introduction

Schwannomas are relatively uncommon, slowly growing lesions that are usually present for a considerable time before they are diagnosed and treated. They are believed to originate in the ectodermal Schwann’s cells of the nerve sheath.

Schwannomas can arise throughout the body; between 25 and 48% have been reported to occur in the head and neck region.1 Schwannoma of the tonsil is extremely uncommon. In our review of the world literature, we found only 4 previously reported cases of tonsillar schwannoma.2-5 Of these 4 cases, 3 occurred in adults2,4,5 and the other in an adolescent3 (table). In this article, we report a new case.

Case report

A 23-year-old woman presented with a 3-year history of a slowly growing mass in the left palatine tonsil. On examination of her throat, we found that the left tonsil was unusually large. Closer inspection revealed that it contained a round, smooth, nontender, 3.5 × 3.0-cm mass. Computed tomography (CT) of the neck revealed that the lesion was well circumscribed and heterogeneous (figure 1). All findings on laboratory testing were within normal limits.

The entire tonsil was removed under local anesthesia. A low-magnification view of the mass revealed a pattern of alternating Antoni A and Antoni B areas that were enclosed by intact mucosa (figure 2, A). The Antoni A areas showed prominent nuclear palisading with formation of a Verocay body (figure 2, B).

Discussion

Histologically, schwannomas are well circumscribed and encapsulated, and they may show cystic degeneration. Antoni A areas are solid, with the Schwann’s cells lying in rows, resulting in palisading of the nuclei. Antoni B areas do not exhibit any architectural pattern, as their arrangement of cells and fibers is disorderly, and there are areas of microcysts and fluid accumulation. Malignant transformation of a schwannoma is rare.

Schwannomas can occur at any age, and they are seen equally in the two sexes.6 It is possible that a schwannoma of the tonsil might be mistaken for chronic tonsillar hyper trophy, a malignant neoplasm (e.g., malignant lymphoma or squamous cell carcinoma), or a tumor of the salivary gland. CT and magnetic resonance imaging of the neck may be helpful in the differential diagnosis of a tonsillar mass.

Because schwannomas are usually well encapsulated, they yield easily to simple excision. When important nerves are involved, the surgeon should take time to carefully strip the nerve bundles from the surface of the growth in order to preserve sensory or motor function. Incomplete removal may result in a recurrence, which should be treated by repeat excision. Radiation therapy is never indicated because schwannomas exhibit a high degree of radioresistance.

Table. Reported cases of schwannoma of the tonsil

<table>
<thead>
<tr>
<th>Author</th>
<th>Age/sex</th>
<th>Duration</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naik and Agrawal, 19752</td>
<td>40/?</td>
<td>2 yr</td>
<td>Right</td>
</tr>
<tr>
<td>Lall et al, 19993</td>
<td>13/F</td>
<td>3 wk</td>
<td>Left</td>
</tr>
<tr>
<td>Bildirici et al, 20024</td>
<td>69/F</td>
<td>4 yr</td>
<td>Right</td>
</tr>
<tr>
<td>Anil et al, 20055</td>
<td>38/M</td>
<td>1 yr</td>
<td>Left</td>
</tr>
<tr>
<td>Lee et al, 2007*</td>
<td>23/F</td>
<td>3 yr</td>
<td>Left</td>
</tr>
</tbody>
</table>

* Present case.
We believe that tonsillar schwannomas arise from a branch of the glosopharyngeal nerve. However, in our case we did not observe any symptom or sign that could be attributable to a damaged glosopharyngeal nerve.

References