A RARE CASE OF A HUGE PLEOMORPHIC ADENOMA OF MINOR SALIVARY GLANDS IN THE PARAPHARYNGEAL SPACE

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ABSTRACT

Parapharyngeal space lesions account for only 0.5% of head and neck tumours. A 63-year-old male presented primary pleomorphic adenomas arising de novo from minor salivary glands in the parapharyngeal space. We describe the clinical features, pathology, radiological findings and treatment of this lesion. The goal when presented with such a tumour is a correct diagnosis and the in toto excision of the tumor to avoid any recurrence.

1. Introduction

Parapharyngeal space tumours are very rare, accounting for some 0.5% of neoplasms of the head and neck. The majority (70%-80%) are benign and 40-50% of these originate in the salivary glands (1). The most common tumour in the parapharyngeal space (PPS) is pleomorphic adenoma which can arise de novo or from the deep parotid lobe and extend into the PPS. The origin of de novo pleomorphic adenoma is probably from displaced or aberrant salivary gland tissue within a lymph node (2). However, pleomorphic adenoma arising de novo in the parapharyngeal space is extremely rare. The case of a 63-year-old male, his management and treatment is presented.

2. Case Presentation

A 63-year-old male presented dysphagia and a painless swelling of the left submandibular region. On intraoral examination there was a smooth firm bulge of the soft palate and left lateral pharyngeal wall (Figure 1). The submandibular swelling was palpable and ballotable (Figure 2).

Figure 1 - Intraoral view showing the displacement of soft palate on left side.

There was no significant lymph node enlargement in the neck. Clinical examination did not reveal involvement of any of the cranial nerves. CT scan showed heterogeneously enhancing tumour with areas of necrosis measuring 6 x 4 x 8 cm in the left parapharyngeal space, extending from the skull base to the floor of the mouth.
Caliber reduction of the left jugular vein at the level of the petrous bone was evident (Figure 3). Fine needle aspiration cytology (FNAC) revealed a diagnosis of pleomorphic adenoma.

Therefore, balloon catheter was positioned in the left jugular by right transfemoral venous access two hours before the intervention. Transcervical approach was used to access to the left parapharyngeal space (Figure 4), the tumour was separate from the deep parotid lobe and was completely excised. On gross examination the lesion was 8 x 6 cm with a whitish, lobulated and glistening surface (Figure 5). Histopathological examination showed a neoplasm having an admixture of epithelial and stromal components. Ducts lined by inner epithelial and outer myoepithelial cells were seen surrounded by a chondro-myxoid stroma typical of pleomorphic adenoma. Postoperative period was uneventful and patient was discharged after ten days. Repeat CT scan done after 6 months and at 1 year of follow up did not show any evidence of residual or recurrent disease. Patient is free of disease to date.

3. Discussion

Tumours arising in the minor salivary glands account for 22% of all salivary gland neoplasms (3). 18% of them are benign, the remaining are malignant. Of all the benign tumours, pleomorphic adenoma is the most common (3). The typical site of this adenoma is on the minor salivary glands of the palate followed by the lip, buccal mucosa, floor of the mouth, tongue, tonsil, pharynx, retro molar area and nasal cavity (3-6).

A literature search was performed on PubMed by searching using the keywords “pleomorphic adenoma”, “minor salivary gland” and “parapharyngeal space”. 97 articles were found. Articles that pointed to the presence of pleomorphic adenoma of minor salivary gland in the parapharyngeal space were selected. 9 manuscripts that enrolled a total of 11 patients were reviewed. It appears that the average age at which the disease is diagnosed is 38.5 years. Only one case of pediatric involvement is reported. The size of the diagnosis tumor is quite large with an average of 6.8 x 5.6 cm. The surgical approach used is variable: in 2 cases the mandibular swing approach (18.5%), in 6 cases the trans-cervical approach (54%), in 2 cases the combined trans-oral and trans-cervical approach (18.5%) and in 1 case only the trans-oral approach (9%). In no case has there been disease recurrence (7-15). (Table 1)
Table 1 - Cases of pleomorphic adenoma of minor salivary glands in the parapharyngeal space and its management

According Varghese et al, Pleomorphic adenoma of the parapharyngeal space is rare and occurs de novo from displaced or aberrant salivary gland tissue within this space (7). Another source of such a tumour is the deep lobe of the parotid gland (16). In our case, the only symptoms of the tumour were dysphagia and a painless swelling. However, these lesions of the parapharyngeal space may show additional symptoms, such as otalgia, neuralgia, palsies of cranial nerves (IX, X, XI) or trismus. Classical findings of benign parapharyngeal swelling are a submucosal fossa or the submandibular region, and is characteristically bollotable on palpation (16-18). CT scan and magnetic resonance (MR) are gold standard diagnostic tools in these cases to determine the extent of disease, local spread and also help to determine the type of tumour. Contrast enhancement is important for differential diagnosis with vascular disease, local spread and also help to determine the type of tumour. Fine needle aspiration cytology (FNAC) is the modality of choice for characterizing and limit of the lesion (20).

<table>
<thead>
<tr>
<th>Age(years)</th>
<th>Size(cm)</th>
<th>Treatment</th>
<th>Recurrence</th>
</tr>
</thead>
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<tr>
<td>Varghese et al. (2003) [7]</td>
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<td>Mandibular osteotomy approach</td>
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<td>Briggs et al. (2006) [8]</td>
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<td>Halden et al. (2009) [9]</td>
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<td>7x8</td>
<td>Trans-cervical approach</td>
</tr>
<tr>
<td>Kurenst et al. (2012) [10]</td>
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<td>6x5</td>
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<td>Huang et al. (2013) [11]</td>
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References


