Epidermoid Cysts of the Vocal Cords: An Undiagnosed Clinical Entity

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Abstract

The present study was carried out on 20 patients at SIKMS Medical College from January 2000 to March 2001. All the patients presented with hoarseness of voice. Laryngeal examination revealed smooth well-defined swelling involving left vocal cord in 12 cases, right vocal cord in 6 cases and bilateral involvement was noticed in 2 cases. Dysphonia being the main symptom, only one patient complained of some difficulty in breathing. Seventy-five percent of the patients were females. The lesion was generally located in the middle third of the vocal cord, just beneath its free border. The diagnosis was established by direct laryngoscope excision and histopathological examination of the lesion.

Key Words

Epidermoid cyst, Vocal cords

Introduction

The studies published on the incidence and presentation of epidermoid cysts arising from vocal cord are not many. This along with the often confusing histopathology about the benign lesions of the vocal cords prompted the authors to undertake the present study. The review of the literature showed cystic lesions, predominantly epidermoid cysts as one of the common benign lesions of the vocal cords.

Histologically, these cysts are divided into two groups:

1. True Epidermoid Cysts
2. Inclusion Epidermoids

The True Epidermoid Cysts are lined by normal malpighian epithelium and are filled with keratin material while Inclusion Epidermoid Cysts consist of a solid malpighian epidermoid formation without keratin. The clinical diagnosis of these lesions is often made on indirect laryngoscopy. Fibreoptic laryngoscopy is also performed wherever necessary.

Considering their frequency of occurrence, symptomatology and diagnostic errors, it became imperative to have a detailed analysis of such patients, so that all the important factors could be highlighted.

Material and Methods

The present study was carried out in department of ENT, at SKIMS, Medical College Hospital, Bemina, Srinagar. Twenty patients were followed up for a period of 2-4 months. A detailed history was obtained and the cases in whom malignancy was suspected were not included in the study. A complete general physical and ENT examination was carried out on all the patients.
Indirect laryngoscopy was performed on 18 cases to ascertain the presence of the lesion, while as two patients had incured overhanging epiglottis obscuring the laryngeal inlet which necessitated the use of fibreoptic laryngoscopy to establish the diagnosis. Routine laboratory pre-operative investigations were performed on all the cases. Majority of the patients were admitted to the hospital the day prior to surgery. Microsurgical excision with vocal re-education was the standard treatment employed in all the cases. All the patients were followed up post-operatively for a period of 2-4 months.

Observations

During one year period from Jan. 2000 to Feb. 2001, 20 patients both males and females having cystic lesions of vocal cord were taken up for the study. There were 15 (75%) females and 5 (25%) males in the study. The average age ranged between 16 to 56 years. Most patients belonged to the age group of 18-35 years. Laryngeal examination revealed 12 (60%) epidermoid cysts involving the left vocal cord and 6 (30%) involving the right vocal cord. Bilateral involvement were observed in 2 (10%) cases. Generally the lesion was located in the middle third of the cord, just beneath its free border. The cysts were less frequently seen in the anterior or posterior part of the cord.

Table 1
The Sex Distribution

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<thead>
<tr>
<th></th>
<th>No. of patients</th>
<th>%age</th>
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<tbody>
<tr>
<td>Female</td>
<td>15</td>
<td>75%</td>
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<tr>
<td>Male</td>
<td>5</td>
<td>25%</td>
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Table 2
Location of the Cysts

<table>
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<th>Left Vocal Cord</th>
<th>Right Vocal Cord</th>
<th>Bilateral</th>
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<tbody>
<tr>
<td></td>
<td>12 (60%)</td>
<td>6 (30%)</td>
<td>2 (10%)</td>
</tr>
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Normal Malpighian lining was seen in all the cases of epidermoid cysts of the vocal cords. Recurrence was noticed in two patients in the postoperative follow-up, which was probably due to incomplete removal of the cyst wall.

Discussion

The majority of the epidermal cysts of the vocal cords showed female preponderance. This is in conformity with the previous studies (2). The average age of the patients at the time of presentation was 36 years.

The site of origin of all of the cysts was in the middle third of the vocal cords, beneath its free border. Out of 20 epidermoid cysts under study 12 (60%) involved left vocal cord, 6 (30%) right vocal cord and 2 (10%) were bilateral.

Our observations regarding involvement of cords by cysts are in conformity with the previous studies (3) which show a high incidence of left vocal cord involvement than right vocal cord.

Majority of these patients with intra-cordal cysts presented with dysphonia, vocal hyperfunction, easy fatigability of the voice and sensation of pain in the throat.

Histopathological examiantion carried out on all the excised specimens revealed an epidermoid cystic cavity
lined by an epithelium of several cell layers growing centripetally.

Microsurgical excision with vocal re-education was employed as the standard method of treatment for all the cases. Only two patients showed recurrence probably due to incomplete removal of the cyst wall.

Conclusion

Intra-cordal epidermoid cysts, though common, are usually missed in Otolaryngological practice. The time interval between the appearance of the lesion and presentation to a clinician varies between a few days to weeks. A thorough histopathological examination is mandatory for all these lesions. Total excision of the cyst must be performed to avoid the chances of recurrence. The post-operative complications including recurrence and heamorrhage are infrequently encountered.

References