CLINICOPATHOLOGICAL STUDY OF PRIMARY SALIVARY-GLAND TUMORS IN KASHMIR

Shafkat Ahmad; Mohainmad Lateef; Rouf Ahmad

ABSTRACT: The study was undertaken for a period of two years from August 1998 to August 2000 with particular reference to age, sex, site and histological types as per WHO classification.

Out of 100 cases diagnosed on F.N.A.C. histopathological examination (HPE) was done only in 66 cases. Diagnosis correlated with F.N.A.C diagnosis in 65 cases with an accuracy of 98.4%. Tumors were analysed according to the age, sex, site and histological type. Principal site was the parotid (70%). Pleomorphic adenoma (73%) formed the largest group of tumors in most sites. Benign tumors were common in 3rd & 4th decades while as malignant tumors were more common in 4th & 5th decades. Painless swelling was the commonest presentation and was present in 99% cases.

KEY-WORDS: Salivary glands, Major salivary glands, Minor salivary glands, Tumors.

INTRODUCTION:
Salivary gland tumors comprise less than 3% of all tumors of head and neck. About 80% are located in the parotids, 10% in the submandibular glands and the remainder being distributed between the sublingual and the countless minor salivary glands. Benign tumors of the salivary glands occur in the age group of 30-70 years. Malignant tumors are more frequent in women than men. The peak incidence for malignant tumors is 6th and 7th decades. Salivary gland tumors have a high incidence in the Eskimos and atomic bomb survivors of Japan. Several other predisposing factors have been postulated including race, diet, occupation, E.B. virus etc. Present study was carried out to know the annual incidence and clinico-pathological profile of these tumors in this part of the country.

MATERIALS AND METHODS:
This study was carried out on patients attending ENT department of Govt. Medical College, Srinagar from August 1998 to August 2000. A detailed history including age, sex, residence, occupation and the clinical symptomatology was taken. FNAC was done in all patients suspected of having a salivary gland tumor in the cytology section of the Department of pathology of Govt. Medical College, Srinagar. In those patients who underwent any kind of surgery, routine investigations like haemogram, kidney function tests, X-ray chest and ECG was done. HPE was done only in 66 cases who underwent some kind of surgery.

OBSERVATIONS:
1. Tumors were observed in the age range of 46 days to 80 years. Male to female ratio was 1.17 : 1.0. The highest incidence was in the 3rd to 4th decade in benign and 4th to 5th decade for malignant tumors (table-1).
2. 99% patients presented with a swelling or palpable mass. Pain was present in 15 cases (15%) out of which 10 were malignant and 5 benign.
3. The benign tumors constituted 86% and malignant tumors 14% of primary salivary gland tumors. Parotid gland was involved in 70% of cases followed by submandibular gland (18%) and minor salivary glands (in 12% cases). Palate was the commonest minor salivary gland tumor site (7% total).
4. Pleomorphic adenoma was the commonest tumor (73%) of all primary salivary gland tumors and parotid was the commonest site (57%) (table-2).
5. Malignant tumors were also common in parotid glands constituting 50% of all malignant salivary gland tumors (28.5%). Adenoidcystic carcinoma was the most common malignant primary salivary gland tumor (35.7%) (table-2).
6. There were total five recurrent salivary gland tumors. Four cases in parotid and one case in parapharyngeal space. All these cases had undergone excision enucleation for pleomorphic adenoma in the past (1-4 year duration). Out of these four excision enucleation were done by general surgeons. Thus excision enucleation (partial superficial parotidectomy) in general and especially by general surgeons seems to be associated with higher recurrence because of inadequate and inaccurate excision enucleation of the tumor.
7. Out of 100 patients, 64 underwent surgery, 1 case of adenoid cystic carcinoma of nasal cavity received radiotherapy and one case of haemangioma local steroids. Rest of the patients did not report for surgery.

Table No. 1: Age and sex distribution of benign and malignant salivary gland tumors.

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Benign</th>
<th>Male</th>
<th>Female</th>
<th>Malignant</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>11-20</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>3</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>21-30</td>
<td>1</td>
<td>1</td>
<td>21</td>
<td>8</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>31-40</td>
<td>3</td>
<td>2</td>
<td>16</td>
<td>9</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>41-50</td>
<td>2</td>
<td>2</td>
<td>16</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>51-60</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>61-70</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>71-80</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>8</td>
<td>6</td>
<td>88</td>
<td>46</td>
<td>40</td>
</tr>
</tbody>
</table>

DISCUSSION:

Only a few recorded analysis of salivary gland tumors based on significantly large number of cases are published from India and in particular Kashmir. The present study involves all cases of primary salivary gland tumors which reported in the Department of ENT, Govt. Medical College, Srinagar during August 1998 to August 2000.

Neoplasms of salivary glands are uncommon 6,7,10, the annual incidence appears to be higher in western publications which may be due to the fact that these were based on the centralized treatment centres. In our study the incidence is close to western data because data is from a centralized treatment centre.

Salivary gland tumors were observed in all ages but the highest incidence was in 3rd and 4th decade for benign tumors and 4th and 5th decades for malignant tumors. The average age for benign tumors was 35.7 years and 42.4 years for malignant tumors, which is close to 32.7 years for benign 42.4 years for malignant tumors as reported by Narinder Singh et. Al. 3. Male to female ratio was 1.17: 1.0 in comparison to the most studies where females outnumbered males. 1,2,3 This is because mostly females being confined to their homes don’t come for treatment. The incidence for benign salivary gland tumors (86%) is higher than the malignant tumors (14%). The duration of symptoms ranged from 45 days to 25 years. The age range reported by Chan et.al 2 (1992) is 25 years to 83 years. The commonest symptom was a painless swelling which was present in 99% cases. Similar observations were made by Loke.-Wallace et.al. 1 reported the range of tumor size in his series to be 1.8-4cm whereas Sharkey 5 reported a mean size ranging from 0.5 - 7cm. In the present series, mean tumor size ranged from 0.5cm-2.5cm.

All the 100 cases in our study were subjected to FNAC, as it is a quick, simple, rapid, inexpensive and a harmless procedure.

HPE was done in 66 cases out of 100 cases. HPE diagnosis correlated with FNAC in 65 cases with a diagnostic accuracy of 98.4%. Thus FNAC is recognized as a practical, simple and a useful technique for the diagnosis of the salivary gland tumors. 10 There were total 5 recurrent
salivary gland tumors. 4 cases were in the parotid glands and one in the parapharyngeal space. All these cases had undergone excision- enucleation for pleomorphic adenoma in the past (1-4 years duration). Out of these 4 excision - enucleations were done by general surgeons. Thus recurrence was associated with excision — enucleation in general and especially by general surgeons as compared to other radical procedures because of inaccurate excision of tumor. Narinder singh\(^3\) reported recurrence in 10 cases in benign tumors and 8 malignant tumors. No recurrence was seen in benign tumors of the submandibular gland as the as the complete excision was done. Our observations are not consistent with most authors because of short follow up period.

Patients are followed at 6 monthly intervals. One patient in our study died after 2 years follow up.

REFERENCES: