



ORIGINAL RESEARCH PAPER

Otolaryngology

PAROTID SWELLINGS : MY EXPERIENCE IN RURAL SET-UP

KEY WORDS: Parotid Gland, Tumours, Pleomorphic Adenoma, Muco-epidermoid Tumour

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ABSTRACT

Objective: To find out the different types of Parotid swellings in our setup and their prevalence in different age groups.

Design & Duration: Observational cross sectional study from March 2015 to March 2017.

Setting: District Hospital Pulwama.

Methodology: The detailed data of the patients was collected and analyzed.

Results: A total of 27 patients, 16 males and 11 females, with ages ranging from 16 to 82 years were included in the study. Most of the patients were in the third and fourth decade of life. Pleomorphic adenoma was the commonest benign tumour with an incidence of 59.25% while Mucoepidermoid Carcinoma with an incidence of 11.11% was the most common malignant tumour.

Conclusion: Parotid gland is the principal site of salivary gland tumours. Males are affected more and Pleomorphic adenoma is the most common benign and Mucoepidermoid carcinoma the most common malignant tumour.

INTRODUCTION

Parotid gland is the largest of all the salivary glands, and the site of most salivary tumours^{1,2}; 80% of its tumours are benign, the commonest being pleomorphic adenoma. Muco-epidermoid carcinoma is the commonest malignant tumour accounting for 4-9% of the salivary neoplastic growths³. The parotid gland is divided into superficial and deep lobes by the traversing of facial nerve and its branches. The superficial lobe is the site mostly involved by neoplasia, while the deep or para-pharyngeal lobe accounts for approximately 10% of the parotid tumours⁴. A careful and timely diagnosis is the key for conservative surgical treatment in benign and intermediate grade of malignant tumours with limited dissection⁵. Surgical approach ranges from superficial parotidectomy for benign tumours and total parotidectomy for malignant tumours followed by post-operative radiation for tumours with residual disease or positive lymph nodes⁶⁻⁹.

In the 19th century, enucleation was performed for parotid gland tumors which had 25% recurrence rate. In the 20th century, the concept for more extensive surgery to reduce the high rate of recurrence came and superficial parotidectomy became popular as the minimum procedure. Today, the widely accepted procedure for benign parotid gland tumours is superficial parotidectomy while for malignant tumors, the option ranges from total to extended parotidectomy followed by post-operative radiation for tumors with residual disease or positive lymph nodes.

The purpose of this study was to find out the different types of Parotid tumours presenting in a rural hospital and their prevalence in different age groups in our patients.

MATERIALS & METHODS

This study was carried out in District Hospital Pulwama which caters to a population of more than 8 lakh from March 2015 to March 2017. All patients with parotid swelling irrespective of age and sex were included in this study. Patients with parotitis and parotid abscess were excluded from this study. Detailed information of each patient like clinical presentation, FNAC results, post-operative Histopathology, and complications were noted.

RESULTS

Out of the 27 patients who presented to me with parotid swelling, 16 (59.2%) were male and 11 (40.8%) were female with a male female ratio of 1.45:1.

The age of patients ranged from 16 years to 82 years. Majority of patients were in fourth and fifth decade of life (44.44%). (Table 1).

Age group	Number of patients	Percentage
0-20	2	7.4%
20-40	9	33.33%

40-60	12	44.44%
60-80	3	11.11%
>80	1	3.7%

Table 1 showing age distribution of patients.

Swelling in parotid region constituted the most common presentation seen in all patients. Swelling was painful in 5 (18.51%) patients and painless in 22 (81.48%) patients. (Table 2).

Presentation	Number of cases	Percentage
Swelling in parotid region	27	100%
Pain	5	18.51%
Facial nerve paralysis	2	7.4%
Trismus	1	3.7%

Table 2 showing clinical presentation of patients

There were 22 (81.48%) patients with benign parotid swelling. 16 patients had pleomorphic adenoma, 3 patients had Warthin's tumour, one patient each had Sjogren's related bilateral parotid enlargement (Picture 2), benign dermoid cyst of parotid (Picture 1) and tuberculosis. (Table 3).

Pathological diagnosis	Number of patients	Percentage
Pleomorphic adenoma	16	59.25%
Warthin's tumour	3	11.11%
Tuberculosis	1	3.70%
Sjogren's related parotid enlargement	1	3.70%
Dermoid cyst	1	3.70%
Mucoepidermoid carcinoma	3	11.11%
Adenoid cystic carcinoma	2	7.4%

Table 3 showing different pathological types of parotid swellings.

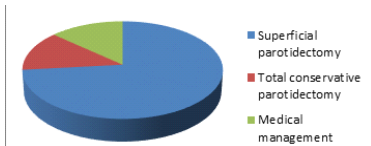


Picture 1 showing dermoid cyst of parotid



Picture 2 showing Sjogrens related parotitic swelling.

The most common surgical procedure done was superficial parotidectomy. 11 cases underwent superficial parotidectomy, 2 cases underwent total conservative parotidectomy. Two patients were managed medically. Three patients refused surgery. Nine patients were lost on follow up.



Pie diagram showing different management protocols.

The most common surgical complication was numbness of ear (n=4). Freys syndrome (n=2) was seen in two patients and three patients had temporary sialocele formation. (Table 4).

Complication	Number of patients	Percentage
Numbness of ear	4	30.7%
Facial palsy	0	0%
Freys syndrome	2	15.38%
Temporary sialocele	3	23.07%

DISCUSSION

This series focussed on parotid region swellings which are the most common among all salivary glands. It is involved by a variety of different benign and malignant conditions for which a wide range of surgical procedures are available^{10,11}.

Out of the 27 patients enrolled 16 were males and 11 were females. This is in accordance to many male dominated studies published^{12,13,14}. However there are female predominant studies also.^{15,16}

In this study the age of patients ranged from 16 to 82 years with majority of patients in fourth and fifth decade of life. This is in accordance to studies published elsewhere¹⁷. Several studies from the west have however reported these disorders to be more common in relatively advanced age group¹⁸.

Swelling of parotid region was found in all patients. 5 patients had painful swelling which were found to be malignant subsequently. Facial nerve paralysis and trismus was also found in patients with malignancy.

Salivary gland tumours constitute 5% of all head and neck tumours, and amongst them parotid is the commonest accounting for about 80% of all Salivary gland tumours. In the Parotid tumours 70-80%^{1,2} are benign and 20-25% malignant³. Pleomorphic adenoma is the most common type of salivary gland tumour and accounts for approximately 60% of all parotid tumours¹⁹. In our study also pleomorphic adenoma was the commonest (59.25%). The share of malignancy was 5(18.51%). Kara et al. had reported 24% malignancies in parotid gland disorders²⁰.

Regarding investigations of my series FNAC was found to be very useful in parotid gland pathology. It was done in all 27 cases (100%) of which all patients who were operated for pleomorphic adenoma(11) were confirmed by histopathology.

In this study, superficial parotidectomy was performed in

11(40.74%) and total conservative parotidectomy in 2(7.4%). Patient with Sjogrens syndrome was further evaluated and responded well with medications. Patient with tuberculosis was further evaluated and put on ATT. Three patients refused surgery citing old age and nine patients were lost after a diagnosis was made.

The most common complication was numbness of ear in 4(30.76%) patients out of 13 cases operated. This was due to transection of greater auricular nerve and patients had a slow recovery. Three patients (23.07%) had development of temporary sialocele which was managed with aspiration and pressure bandaging. Frey's syndrome was seen in 2 (15.38%) patients and no case of facial palsy was noted. The incidence of facial nerve palsy varies from 15-29% in the literature²¹.

CONCLUSION

Parotid gland is the principle site of salivary gland tumours. Males are mostly affected. Majority of patients present with painless lump and pleomorphic adenoma is the commonest benign tumour, while mucoepidermoid carcinoma is the most common malignant tumour. Superficial parotidectomy was the most commonly offered surgical procedure and post operative risk of facial nerve palsy and recurrence were decreased.

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