An Observation Into Sixty Cases Of Salivary Gland Lesions Benign, Malignant And Non-Neoplastic In A Tertiary Care Center Of Konaseema District, Andhra Pradesh: A Retrospective Study

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Abstract:

Background: There is a need for more studies in different geographical areas. This will help to diagnose the tumors in the early phase and can implement effective management methods.
Objective: The present study was undertaken to observe the sixty cases of salivary gland lesions benign, malignant, and non-neoplastic in the tertiary care center of Konaseema district, Andhra Pradesh.
Materials and methods: A total of sixty cases of salivary gland lesions benign, malignant, and non-neoplastic were part of the study after obtaining permission from authorities. The data was accessed and recorded from the medical records department after obtaining permission from the authorities.
Results: The majority of the lesions occurred in the age group of 31-40 years. The majority of the lesions occurred in females than males. Parotid gland lesions are more common than in any other location. Most of the lesions are benign. 3x2 cm size lesions are more frequent than others.
Conclusion: The study highlights that parotid and benign lesions are more common in age groups of 31-40 years. The study recommends larger-scale studies in this area.

Keywords: Salivary glands, Lesions, Tumors, Benign, Malignant
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Introduction:

The salivary glands are exocrine glands that release enzymes to help with digestion and lubrication.[1] There are major and minor salivary glands based on their functions.[2] Tumors can easily develop in these structures and they are difficult to diagnose.[3,4] There exist several studies across the world that evaluated the incidence and frequency of these tumors.[5,6] However, there are geographical variations in these lesions. Hence, there is a need for more studies in different geographical areas. This will help to diagnose the tumors in the early phase and can implement effective management methods. The present study was undertaken to observe the sixty cases of salivary gland lesions benign, malignant, and non-neoplastic in the tertiary care center of Konaseema district, Andhra Pradesh.

Materials and methods:

Study design: Retrospective study

Study setting: Department of Pathology, KIMS, Amalapuram, Andhra Pradesh, India.

Study population: A total of sixty cases of salivary gland lesions benign, malignant, and non-neoplastic were part of the study after obtaining permission from authorities.

Inclusion criteria: Accessible records of sixty cases of salivary gland lesions benign, malignant, and non-neoplastic were selected for the study.

Exclusion criteria: Patients with severe complications were excluded from the study.

Methods: The data was accessed and recorded from the medical records department after obtaining permission from the authorities. Confidentiality of the data was maintained as per the regulations of ICMR.

Ethical considerations: The study protocol was approved by the institutional human ethical

committee. All required permissions were obtained to access the medical records of patients.

Statistical analysis: Data was analyzed using SPSS 20.0. Qualitative data were reported as frequency and percentage.

Results: Results were presented in table no 1 to table no 5. The majority of the lesions occurred in the age group of 31-40 years. The majority of the lesions occurred in females than males. Parotid gland lesions are more common than in any other location. Most of the lesions are benign. 3x2 cm size lesions are more frequent than others. Figures 1 to figure 3 present histological images of the benign lesions and carcinomas.

Table 1: Age-wise distribution of the participants

Age (years)	Frequency	Percentage
10-20	1	1.66
20-30	10	16.66
31-40	17	28.33
41-50	14	23.33
51-60	11	18.33
61-70	7	11.66

Data were presented as frequency and percentage

Table 2: Gender-wise distribution of the participants

Gender	Frequency	Percentage
Male	27	45
Female	33	55

Data were presented as frequency and percentage

Table 3: Lesion location-wise distribution of the participants

Location of lesion	Frequency	Percentage
Parotid gland	34	56.66
Submandibular gland	21	35
Lower lip	3	5
Parotid cyst	1	1.66
Posterior 2/3 of tongue	1	1.66

Data were presented as frequency and percentage

Table 4: Lesion type distribution of the participants

Type of lesion	Frequency	Percentage
Benign	29	47.54
Malignant	11	18.03
Non-neoplastic	21	34.4

Data were presented as frequency and percentage

Table 5: Size-wise distribution of the participants

Size (cms)	Frequency	Percentage
4x3x2	2	3.33
4x3	4	6.66
4x2x1	1	1.66
3x2x1	4	6.66
3x2	15	25
4x5	1	1.66
1	1	1.66
2x2x1	4	6.66
1x1	1	1.66
2x2	9	15
3x2.5	2	3.33
3x2.5x2	1	1.66
1.5x1	1	1.66
3x2x2	5	8.33
2x1x1	5	8.33
7x4x3	1	1.66
1.5x1.5	1	1.66
3x3	1	1.66
2x1	1	1.66

Data were presented as frequency and percentage

Figure 1: pleomorphic adenoma 10x: Epithelial cells arranged in nests and tubules with myoepithelial cells and chodromyxoid stromal fragments

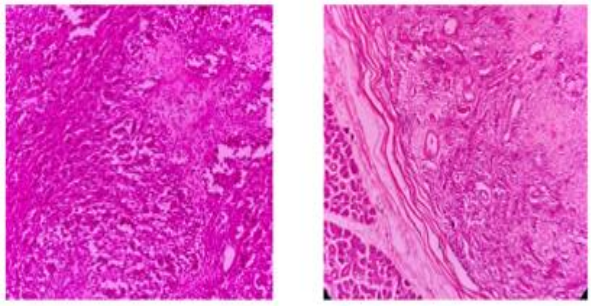


Figure 2: Warthins tumor 10x: cyst with papille lined by double layer of oncocytic epithelium with lymphoid stroma

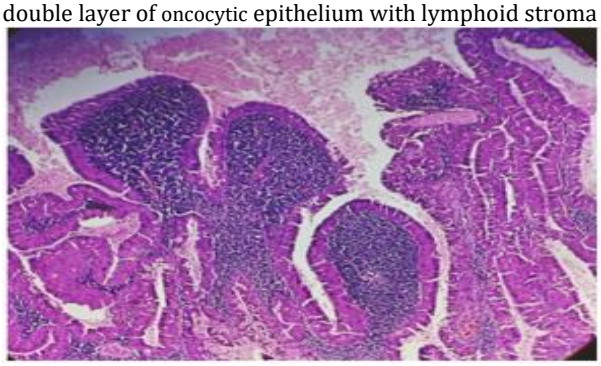
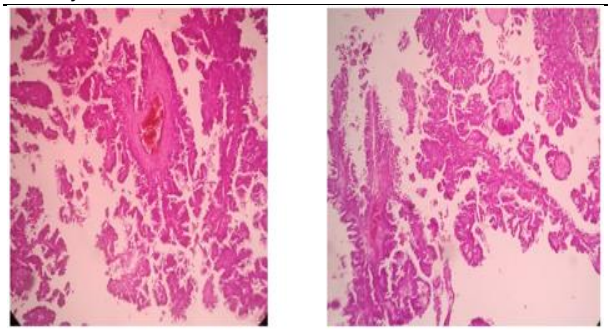


Figure 3: Acinic cell carcinon papillary cystic variant 10x



Discussion: The present study was undertaken to observe the sixty cases of salivary gland lesions benign, malignant, and non-neoplastic in the tertiary care center of Konaseema district, Andhra Pradesh. The majority of the lesions occurred in the age group of 31-40 years. The majority of the lesions occurred in females than males. Parotid gland lesions are more common than in any other location. Most of the lesions are benign. 3x2 cm size lesions are more frequent than others. Earlier studies reported that salivary gland tumors are rare and occur in 0.3 to 4 in 100,000 individuals.[7-9] Most of the research articles published in this area mainly focused on the diagnosis and prognosis of salivary gland tumors.[10-12] Very less articles explained gender-based information. The current study considered gender-wise distribution also. Further, it was explained that the prevalence of lesions varies with the geographical area.[13-15] The present study agrees with this statement as there are variations in our study compared with earlier studies in different areas. An earlier study reported that the incidence of tumors is high in females.[16] The present study agrees with it as we have observed a higher incidence in females when compared with males. There is a need for large-scale translational studies in this area to understand the salivary gland lesions and to plan effective management methods.

Conclusion: The study highlights that parotid and benign lesions are more common in age groups of 31-40 years. The study recommends larger-scale studies in this area.

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