



HISTOPATHOLOGIC SPECTRUM OF SALIVARY GLAND LESIONS: A PROSPECTIVE STUDY

Pathology

Dr Ashim Bhuyan Assistant Professor, Department of pathology, Gauhati Medical College, Guwahati, 781002, India.

Dr Rosy Khandelia* Demonstrator, Department of Pathology, Gauhati Medical College, Guwahati 781032, India. *Corresponding Author

ABSTRACT

Introduction: Salivary gland tumors (SGTs) are rare and their annual incidence is <1/100,000 inhabitants, without noticeable geographical gap, and they represent <5% of head and neck tumors. **Aims and objective:** This study was done to determine the histopathologic spectrum of Salivary gland lesions. **Materials and methods:** A prospective study of Salivary gland biopsy was carried out in a tertiary care hospital over a span of one year. 90 biopsy samples were subjected to histopathological examination. **Results:** Biopsies comprised of 09 (10%) inflammatory, 70 (77.7%) benign cases and 11 (12.2%) malignant cases. Male to female ratio was 1:1.57. Mean age of presentation was 35 years. Pleomorphic adenoma was the commonest benign tumour, whereas Mucoepidermoid carcinoma was the commonest malignant tumour. **Conclusion:** The present study highlights importance of histopathological examination to find the true nature of the salivary gland lesion.

KEYWORDS

Biopsy, Salivary Gland, Pleomorphic Adenoma, Mucoepidermoid Carcinoma.

INTRODUCTION

Salivary gland tumors are rare and their annual incidence is <1/100,000 inhabitants, without noticeable geographical gap, and they represent <5% of head and neck tumors.¹ These comprise a wide variety of benign and malignant neoplasms, non-neoplastic lesions which exhibit a difference in biological behavior. Non-neoplastic lesions range from an inflammatory disorder of infectious, granulomatous, or autoimmune etiology to obstructive, developmental, and idiopathic disorders. These often clinically present as tumors and may have pathological feature similar to some of the neoplasm.² Salivary gland tumors can show a striking range of morphological diversity between different tumor types and sometimes within an individual tumor mass. In addition, hybrid tumors, dedifferentiation and the propensity for some benign tumors to progress to malignancy can confound histopathological interpretation.³

MATERIALS AND METHODS

A prospective study of salivary gland biopsy was carried out in a tertiary care hospital over a span of one year in which 90 salivary gland biopsies were evaluated. All the biopsy samples were immediately put in 10% neutral buffered formalin followed by conventional tissue processing and embedding. Five micron thick sections were cut and slides were prepared. Each section was stained with Haematoxylin and Eosin stain and studied. Slides were examined by consultant pathologist under light microscope. The lesions were histologically categorized as inflammatory, benign, and malignant.

RESULTS

Among the 90 salivary gland biopsies, 35 (38.8%) were males and 55 (61.1%) were females with a male to female ratio of 1:1.57. Age of the patients ranged from 10 – 80 years. Mean age of presentation was 35 years. The youngest patient was a 15 year old female with chronic sialadenitis and the oldest patient was 76 year female with Mucoepidermoid carcinoma. Majority of patients (76%) presented with swelling and pain in the involved salivary gland. Parotid gland was the most common site involved, followed by submandibular gland and the minor salivary gland in the palate and floor of the mouth. Biopsies comprised of 09 (10%) inflammatory, 70 (77.7%) benign cases and 11 (12.2%) malignant cases. Pleomorphic adenoma was the commonest benign tumour as shown in figure 1, whereas Mucoepidermoid carcinoma was the commonest malignant tumour as shown in figure 2.

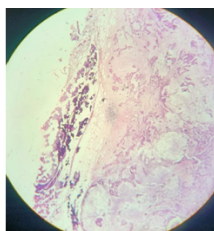


Fig 1: Pleomorphic adenoma

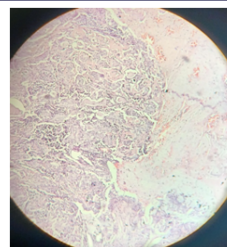


Fig 2: Mucoepidermoid carcinoma

Table 1: Histopathological findings in Salivary gland biopsies

LESIONS	NO OF CASES	PERCENTAGE
INFLAMMATORY		
Cysts	04	4.44
Chronic Sialadenitis	03	3.33
Granulomatous Sialadenitis	02	2.22
BENIGN		
Pleomorphic adenoma	60	66.6
Warthins tumour	06	6.66
Basal cell adenoma	02	2.22
Monomorphic adenoma	02	2.22
MALIGNANT		
Mucoepidermoid carcinoma	05	5.55
Adenoid cystic carcinoma	02	2.22
Acinic carcinoma	02	2.22
Carcinoma expleomorphic adenoma	01	1.11
Polymorphous low grade adeno carcinoma	01	1.11
TOTAL	90	100

DISCUSSION

Salivary gland lesions are the uncommon lesions encountered in clinical practice. Parotid gland was the most common site involved. This was in consistence with the study done by Ali NS et al⁴ where parotid gland was the most common site involved. In the present study, the frequency of benign lesions was higher than malignant lesions, as is seen in the study done by Rewsuwan S.⁵ The most common tumour in our study was Pleomorphic adenoma which is in concordance with the study done by Kornevs Eglis et al where Pleomorphi cadenoma was the commonest finding.⁶ Mucoepidermoid Carcinoma was the commonest malignant tumour in our study which was in accordance to the study done by Mallepogu Anil Kumar et al.³

CONCLUSION

The present study highlights the importance of histopathological examination to find the true nature of the lesion. Histopathological

study of salivary gland lesions is the most important method in early diagnosis and deciding the final course of management.

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