

A RETROSPECTIVE STUDY OF SALIVARY GLAND NEOPLASMS WITH A CASE REPORT OF POLYMORPHOUS LOW GRADE ADENOCARCINOMA OF LOWER LIP

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ABSTRACT

Neoplasms of the salivary glands constitute an important area in the field of oral and maxillofacial pathology. Such tumors are uncommon and they comprise six percent of all head and neck tumors. Out of 90 cases of salivary gland diseases which reported in our institution between 2006 and 2012, 30 cases were neoplasms. Labial tumors are significantly more common in the upper lip which accounts for 75% to 89% of all lip tumors. We report a rare presentation of polymorphous low grade adenocarcinoma (PLGA) involving the lower lip.

KEYWORDS: Polymorphous Low Grade Adenocarcinoma; Lower Lip; Neoplasm

INTRODUCTION

Salivary gland lesions have a global annual incidence of 1 - 6.5 cases per 1,00,000 people.^[1] All oral lesions that reported to our institution were scrutinized retrospectively and 90 cases were found to be salivary gland lesions. Of these 30 were neoplasms. These lesions were examined for the type of lesion, location, duration, gender and age of occurrence. A case of Polymorphous low grade adenocarcinoma (PLGA) which occurred in the lower lip is described owing to the rarity of occurrence at this site. PLGA was originally described by Evans and Batsakis as a distinct entity in 1984 and was separated from the generic group of the salivary adenocarcinomas in 1991.^[2-4]

MATERIALS AND METHODS

The cases from our institution reported between 2006 and 2012 were examined and 90 cases were found to be salivary gland pathologies. All histopathological slides and corresponding recorded clinical information were reviewed and tabulated with anatomical location (Table 1 & Table 2).

CASE REPORT

A 45 year old male reported to our outpatient department with the chief complaint of a painless swelling on the right side of the lower lip for seven months. The patient's medical history was not significant. Intraoral examination revealed a well delineated, nodular swelling measuring about 1 x 2 cm in size involving the labial mucosa (Fig. 1 & Fig. 2). The mucosa overlying the swelling was stretched without any ulceration and the vermilion border was uninvolved. The swelling was firm and non-tender on palpation with no signs of discharge. Regional lymph node involvement was not present. Incisional biopsy was performed and sent for histopathological examination, which revealed a well-circumscribed but unencapsulated tumor which was comprised of cytologically uniform, bland cells with oval and vesicular nuclei and inconspicuous or small nucleoli. The cytoplasm was ample and appeared eosinophilic or clear. The cells were arranged in various configurations like solid, lobular, tubular, cribriform and papillary-cystic areas. The strands of tumor cells were arranged in single file pattern at the periphery. The connective tissue stroma showed hyaline areas. Necrosis was not evident and mitotic figures were infrequent. A diagnosis of



Fig. 1:



Fig. 2:

Table 1

Age / Sex	Location	Duration	Salivary gland neoplasms
45/M	Lower lip	7 months	<i>Polymorphous Low Grade Adenocarcinoma</i>
58/M	Left Side hard palate	4 months	Mucoepidermoid Carcinoma
49/M	Right Side hard palate	3 months	Mucoepidermoid Carcinoma
23/F	Right Side hard palate	4 months	Mucoepidermoid Carcinoma
4/M	Right lateral aspect of soft palate	5 months	Mucoepidermoid Carcinoma
53/M	Left Side of hard palate	4 weeks	Mucoepidermoid Carcinoma
61/M	Right Side hard palate	7 weeks	Mucoepidermoid Carcinoma
59/M	Left Side hard palate	9 weeks	Mucoepidermoid Carcinoma
50/F	Left Side hard palate	4 months	Mucoepidermoid Carcinoma
28/M	Right Side hard palate	6 weeks	Adenoid Cystic Carcinoma
55/M	Left cheek	4 months	Adenoid Cystic Carcinoma
34/M	Left cheek	3 months	Adenoid Cystic Carcinoma
50/F	Floor of the mouth	3 months	Adenoid Cystic Carcinoma
55/M	Right palate	5 months	Adenoid Cystic Carcinoma
42/F	Left Posterior hard palate	3 yrs.	Pleomorphic adenoma
47/M	Palatine midline	5yrs.	Pleomorphic adenoma
32/F	Right Posterior hard palate	4yrs.	Pleomorphic adenoma
55/F	Right Posterior hard palate	4 yrs.	Pleomorphic adenoma
42/F	Left Posterior hard palate	6 yrs.	Pleomorphic adenoma
62/M	Right Parotid region	3 yr.	Pleomorphic adenoma
55/F	Left Side infratemporal fossa	3 yrs.	Pleomorphic adenoma
35/F	Right Side hard palate	3 ½ months	Acinic cell adenocarcinoma
68/M	Parotid, angle of mandible	4 months	Adenolymphoma
55/M	Left Side hard palate	2 months	Papillary adenocarcinoma
42/F	Right cheek	3 months	Acinic cell adenocarcinoma
37/F	Left Side hard palate	5 months	Acinic cell adenocarcinoma
45/M	Right Side hard palate	4 months	Acinic cell adenocarcinoma
49/M	Right cheek	2 months	Adenoid Cystic Carcinoma
59/M	Left Side hard palate	6 months	Acinic cell adenocarcinoma
52/F	Right Side hard palate	3 months	Acinic cell adenocarcinoma

Table 2: ANATOMIC DISTRIBUTION OF 30 SALIVARY GLAND NEOPLASMS

SITE	PERCENTAGE (%)
Palate	60
Cheek	13
Parotid region	6
Lower lip	3.3
Submandibular region	3.3
Infratemporal fossa	3.3
Palatine midline	3.3
Floor of the mouth	3.3

PLGA was made.

RESULTS

Out of 90 cases of salivary gland diseases reported, 30 cases were neoplasms, including one case of PLGA in rare location, in the lower lip [Table 1]. Benign neoplasms comprised 29% of cases and malignant neoplasms comprised 70%. The majority of cases were found to be in the palate (60%) [Table 2].

DISCUSSION

PLGA occurs almost exclusively in the region of the minor salivary glands,^[5-12] with about 55-60% arising in the palate, 20% in the cheek and 12% in the upper lip and usually presents as a slowly growing, indolent mass.^[2] PLGA is a salivary gland tumour which arises in the intercalated ducts.^[1,13,14] The tumour is so designated because it demonstrates architectural variability in different areas, while exhibiting relative cellular uniformity.^[14] According to Waldron *et al*, this tumour accounts for 11% of all minor salivary tumours and 26.4% of the malignant ones, ranking second after mucoepidermoid carcinoma.^[15] Palate is the most common location (60%), followed by buccal mucosa (20%) and upper lip (12%).^[13] PLGA in a site other than these locations is rare. Differential diagnoses include benign and malignant salivary gland tumours such as pleomorphic and monomorphic adenomas, carcinoma ex pleomorphic adenoma and adenoid cystic carcinoma. The neurotropism and single file alignment are useful characteristics that differentiate this tumour from other adenomas.^[13] Microscopically the tumor is characterized by infiltrative growth, morphologic diversity and cytologic uniformity. Though well circumscribed the tumors are often unencapsulated. The varieties of growth patterns include solid, glandular, cribriform, ductular,

tubular, trabecular or cystic lesions. The biological behavior of this tumour is one of indolent local aggressiveness with local recurrence and rare regional metastasis and therefore makes long term follow up essential. Wide local excision, with a margin of normal tissues, is the treatment of choice.^[13] According to Ellis *et al*. 1991, out of 3355 cases of salivary gland tumors, mucoepidermoid carcinoma comprised 21.5%; PLGA comprised only 2.2% of which 21% cases were found on lips. Everson & Cawson in 1985 have observed that out of 71 cases of labial salivary gland tumors, only 11% were present in the lower lip.

CONCLUSION

The case presented shows no variation from the normal histopathology, but it can be considered to be significant because of its rare anatomical location.

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