Dear Sir

Although mucoepidermoid carcinoma (MEC) and adenoid cystic carcinoma is the most common malignant salivary gland neoplasm in minor salivary gland, it is rarely seen on the labial mucosa. The clinical presentation of a salivary gland malignancy in an intraoral minor salivary gland will often be mistaken for a benign or inflammatory process. Although it is rare before age 20, it is the most common salivary gland malignancy in the pediatric and adolescent populations. We present a unique case of a 29yr male with diffuse swelling on upper labial mucosa. This solitary, movable lesion present a diagnostic dilemma to the pathologist with rarer manifestations.

A 29 year old male patient came to the opd department with a painless diffuse swelling on upper inside of lip since 3 months. Paresthesia present over the swelling. On intra oral palpation the swelling was firm with well defined borders on palpation. There was no pain associated with the swelling. No history of trauma. The clinical appearance was that of a fibroma. On examination the swelling was of the same color as that of normal mucosa, Ovoid stretched and shiny ,soft to firm on palpation measuring about 2x2 cm (FIG 1).The differential diagnosis included fibroma, peripheral ameloblastoma, lipoma, neurofibroma, and salivary gland neoplasm.

Excisional biopsy was done and we received a tissue grayish white in color with hemmarrhoge measuring about 2 x 2 x 5 mm in size. On sectioning, a smooth glistening white material was seen. (FIG 2)

The lesion was aspirated and tissue was then excised for biopsy The aspirated lesion cytology stained with H and E showed areas of inflammatory cell and very sparse mucin pooling at few areas (FIG 3).Pale mucoid background with cells in clusters were seen . Cells were arranged in groups the nuclear and cytological features were not appreciable in the smear, but mild pleomorphism of cells was noticed. At one foci scattered individual cells were seen which were showing spindle shape and vacoulated .(FIG 4)

Tissue was processed and the H&E stained section showed a well defined capsule around sheets and islands of tumour cells with connective tissue (FIG 5). Islands of tumour tissues shows two populations of cells, one clear cell and one cell with inconspicuous nucleolie and granular cytoplasm surrounded by pale stain eosinopilic area. (FIG 6). At one foci near the tumor capsule a lymphoid component forming a germinal centre was seen . (FIG 7) The histological differential diagnosis of the tumor included mucoepidermoid carcinoma, adenoid cystic carcinoma, polymorphous low grade adenocarcinoma, adenosquamous carcinoma, squamous cell carcinoma

Histomorphogenic diversity within the salivary gland lesions are common. A careful clinical, histopathological and cytological study is necessary to rule out, whether the lesion can be cateogerized as inflammatory ,benign or malignant lesion1. Also in contrast to previously existing literature, the incidence of malignacies in minor salivary glands was higher than benign salivary gland neoplasms [2].

In our case with clinical evaluation of the lesion as a firm and movable lesion we further proceeded to aspiration cytology. The aspirated smear showed vacuolated cells, few squamous cells in a dirty background suggestive of mucin with pleomorphism of cells. Scattered inflammatory cells
Fig. 1: A firm and movable lesion on upper labial mucosa

Fig. 2: Grossed lesion showing white glistening material

Fig. 3: Smear showing mucoid background with few squamous cells in clusters (4X & 10X)

Fig. 4: Squamoid cells with mild pleomorphism and few scattered vacoulated cells (40X)

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predominantly lymphocytes were seen. The presence of such cluster of cells with mucin background could suggest a variety of salivary gland lesion. Also with inflammation it could also suggest an inflamed or obstructive salivary gland lesion [3,4].

Histological sections in our case showed lesional tissue arranged in sheets and islands with intervening hyalinization in connective tissue stroma. Two populations of cells, one clear cell and one cell with inconspicuous nucleolus and granular cytoplasm was seen. With such features Mucoepidermoid carcinoma was given as final diagnosis.

Mucoepidermoid carcinoma (MEC) is a malignant epithelial neoplasm composed of varying proportions of mucous, epidermoid, intermediate, columnar, and clear cells and often demonstrates prominent cystic growth.[1]

MEC have been categorized as either classical MEC or variant (non-classical) MEC. Classical MECs are tri- or biphasic neoplasms composed of well recognizable mucous cells with prominent single goblet cells or contiguous goblet cells forming mucinous gland-like or cystic spaces in addition to variable proportions of epidermoid (squamoid) and intermediate cells. Variant or non classical MECs have predominant squamoid, eosinophilic, or clear cell morphology. Few tumors are subvariant MEC which shows focal acantholytic, pseudoglandular or pseudovascular pattern. Another pattern seen in this group was the presence of differentiated squamoid sheets with numerous microcystic lumina filled with blue mucin and imparting a pseudocribriform pattern to the tumor. [5]

Once diagnosed as a malignant lesion, a grading system becomes important. There is lot of grading systems.

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Fig. 5: Two population of cells vacoulated cells and few epidermoid like cells (10x,40x)

Fig. 7: Tumour capsule with germinal centre at one foci (10x)
According to the grading schemes for mucoepidermoid carcinoma, histological features score AFIP (Goode et al, 1998) Brandwein et al (2001) with cystic component <25% without neural invasion, mitoses and anaplasia and nuclear atypia this tumour is regarded as low grade tumour [6]. Based on wide morphological diversity there is no particular prognostic indicator, however size is of concern as large lesions tend to have poor prognosis regardless of grade and high grade lesions might do well when small.[7]

The pattern at the tumour edge, a lymphocytic infiltrate with possible germinal centre formation can mimic nodal invasion, it represents part of the concept of tumor-associated lymphoid proliferation (TALP) [8].

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