SkIndia Quiz 23

A swelling on the tongue

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A 40-year-old male patient reported with a complaint of swelling over the tongue of two months duration. The patient had first noticed the swelling four months ago which was initially the size of a grape seed and had gradually increased to attain the present size. There was pain over the swelling for the past one month that was insidious in onset, and aggravated by speech and mastication. There was no history of trauma to the tongue, paresthesia or loss of taste sensation. The medical and family histories were unremarkable. The general physical and systemic examinations were normal.

Clinical examination showed the presence of dome shaped swelling of 0.5 cm in diameter on the right dorsal surface of the tongue. The ventral surface showed similar swelling which appeared to be extending from the dorsal surface [Figure 1]. The swelling was non-tender, compressible and soft in consistency. Bimanual palpation revealed that the swellings on the dorsal and ventral surfaces were inter-connected. Transillumination revealed the cystic nature of the swelling. Diascopy did not show any blanching. Under local anesthesia, the swelling was completely excised and sent for histopathological examination. The histopathological features from hematoxylin and eosin stained tissue section are shown in [Figures 2 and 3].

WHAT IS THE DIAGNOSIS

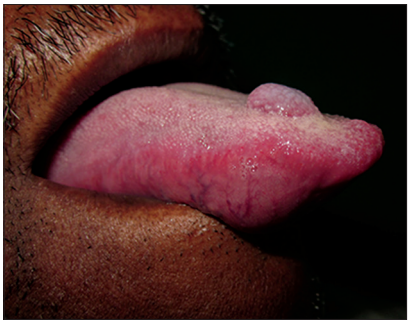

Figure 1: Swelling involving the dorsal and ventral surface of the tongue

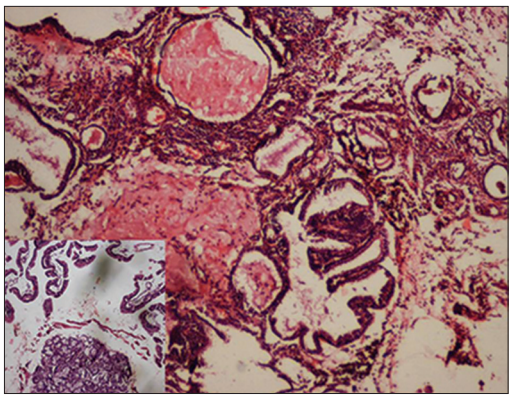

Figure 2: Multicystic spaces of varied size with several delicate papillary fronds projecting into the cystic lumen filled with proteinaceous material (H and E, ×10), insert showing cystic spaces with papillae abutting from the minor salivary gland

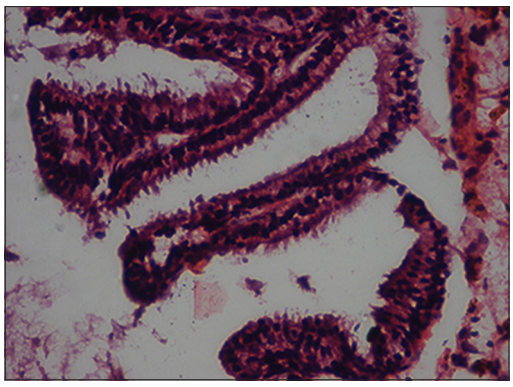

Figure 3: Epithelial lining consisting of bland columnar cells with focal areas of thick 2-3 layered cells and thin vascular cores (H and E, ×20)

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ANSWER

Papillary cystadenoma.

DISCUSSION

Papillary cystadenoma is a rare benign neoplastic proliferation of salivary gland ductal epithelium.[1] They are believed to arise from acinar/luminar epithelial cells which results in tumor cell differentiation and tumor cell organization.[2] Cystadenomas frequently affects patients in the sixth decade of life with a female: male ratio of 3:1.[3] They frequently involve the minor salivary glands and the common sites include palate, lips, buccal mucosa and rarely the tongue.[4,5] The usual clinical presentation is an asymptomatic, well-circumscribed, slow growing, slightly compressible swellings, never exceeding 1 cm in diameter.[2,3,6]

Microscopically, they are characterized by various sized cystic structures that enclose proteinaceous fluid, psammoma bodies or crystalloids with or without a capsule. The epithelium lining the ducts may be made of cuboidal or columnar cells with uniform nuclei. Further, the lining which is usually two to three cells thick, might abruptly become focally thickened or form ramifying papillary projections with central cores of connective tissue. The supporting stroma is dense and fibrous with scattered inflammatory cells, occasional foci of oncocytes, mucous cells and melanin.[3,4]

The differential diagnosis of cystadenoma should include mucocele, intraductal papilloma, cystadenocarcinoma, low-grade mucoepidermoid carcinoma, Warthin tumor and acinic cell carcinoma.[2,3,7]

Mucoceles consist of a circumscribed cavity in the connective tissue and submucosa, producing an obvious elevation of the mucosa with thinning of the epithelium. The wall of the cavity is made up of a lining of compressed fibrous connective tissue and fibroblasts. The lumen of the cyst-like cavity is filled with spilled mucin containing variable numbers of cells, chiefly leukocytes and foamy histiocytes.[8]

Intraductal papilloma always occurs in a single cystic space and is characterized by numerous and complex papillary projections.[3] Although, cystadenocarcinomas are morphologically similar to cystadenomas, the following aspects distinguish cystadenocarcinoma from cystadenoma, such as frank invasion of surrounding tissues, pattern of solid growth in focal areas, cellular atypia, permeation or destruction of the glandular parenchyma and breakdown of the glandular lobe architecture, as well as infiltration of adipose, muscle or bone tissues.[3,7]

Low-grade mucoepidermoid carcinoma also resembles cystadenoma in terms of the growth pattern and the cell population involved. Mucoepidermoid carcinoma presents with cystic structures, non-cystic epithelial proliferations, and irregular and complex papillary growth. Cell populations include combinations of epidermoid, mucosal and to a lesser extent, intermediate and basaloid cells.[3] In case of Warthin tumor, the epithelium is usually of oncocytic origin and also contains multiple papillary proliferations projecting into the cystic spaces, supported by a lymphoid stroma. In acinic cell adenocarcinomas, the papillary cystic patterns are microcystic in nature, the epithelium is less uniform and contains large serous and acinar cells.[2,3]

The management approach suggested for cystadenoma is simple surgical excision. Since the lesion is regarded as potentially malignant and with reports of recurrence due to incomplete excision, regular follow-up is needed.[2,5,6]

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