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Commentary

Eaves and Outthrust-Sialadenoma Papilliferum

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Sialadenoma papilliferum is an exceptionally discerned, benign salivary gland neoplasm demonstrating a biphasic morphology. Initially scripted by Abrams and Finck in 1969, neoplasm histologically simulates syringocystadenoma papilliferum of sweat gland origin [1].

The biphasic neoplasm depicts a distinct exophytic component comprised of squamous epithelial cells commingled with an endophytic glandular component.

Neoplasm is configured of papillae layered by well differentiated, hyperplastic squamous epithelium superimposed upon ductal articulations demonstrating cleft-like, cystic spaces layered by cuboidal epithelium or columnar epithelium admixed with occasional goblet cells. Sialadenoma papilliferum configures nearly 2% of benign tumours of salivary glands and an estimated 1.1% neoplasms arising within minor salivary glands [2,3].

Generally, sialadenoma papilliferum occurs within hard palate or parotid gland. Tumefaction emerges as a painless lesion. Alternatively, palatal lesions may be accompanied by a painful sensation [2,3].

Neoplasm is commonly discerned within individuals >40 years. Paediatric population is implicated. A male preponderance is observed [2,3].

Grossly, a well circumscribed, spherical to elliptical, papillary neoplasm appears confined to the mucosal surface [3,4].

Upon microscopy, the pre-eminently biphasic neoplasm delineates a papillary configuration wherein papillae appear coated with well differentiated, hyperplastic, squamous epithelium. Squamous epithelial cells appear to overlie the ductal component comprised of cleft-like, cystic spaces layered by cuboidal epithelium or columnar epithelium commingled with occasional goblet cells. A variable component of oncocytes may appear. Superimposed epithelium articulating the exophytic tumour component may delineate foci of squamous metaplasia, dysplasia or in situ carcinoma [3,4].

Sialadenoma papilliferum may depict a malignant counterpart [3,4].

Alternatively, tumefaction may progress into mucoepidermoid carcinoma or epithelial-myoepithelial carcinoma in concurrence with high grade carcinoma [4,5].

Upon ultrastructural examination, the preponderant oncocyte tumour cell appears to be imbued with innumerable mitochondria or parallel filaments impacted within cell cytoplasm and adhered by desmosomes [5,6].

Neoplasm	Site	Pathological Features	Genetic mutations
SP	Oral cavity	Exophytic squamous and inverted glandular components	BRAF V600E, HRAS
SP-IPT	Oral cavity	Exophytic component	BRAF V600E
SCP	Cutis (anogenital region)	Exophytic and endophytic component	BRAF V600E, HRAS, G13R
TPH	Mandible	Glandular proliferation with apocrine and eccrine differentiation	BRAF V600E, KRAS

Table: *Differential diagnosis of sialadenoma papilliferum-like intraductal papillary tumour and analogies [2].*

SCP: Syringocystadenoma Papilliferum; SP: Salivary Sialadenoma Papilliferum; SP-IPT: Salivary Sialadenoma Papilliferum-Like Intraductal Papillary Tumour; TPH: Tubulopapillary Hidradenoma-Like Tumour.

Staging of malignant salivary gland tumours is designated as [5,6]:

- Stage 0: Tis, N0, M0
- Stage I: T1, N0, M0
- Stage II: T2, N0, M0
- Stage III: T3, N0, M0 OR T0, T1, T2, T3, N1, M0
- Stage IVA: T0, T1, T2, T3 or T4a, N2, M0 OR T4a, N0 or N1, M0
- Stage IVB: Any T, N3, M0 OR T4b, any N, M0
- Stage IVC: Any T, any N, M1.

Squamous epithelial cells and ductal structures appear immune reactive to CK7, cytokeratin AE1/AE3, carcinoembryonic antigen (CEA) or epithelial membrane antigen (EMA).

Ductal structures appear immune reactive to CAM5.2, S100 protein, CK8 and CK19 [6,7].

In concordance with myoepithelial cells, basal epithelial cells appear immune reactive to CK13, CK14, S100 protein, glial fibrillary acidic protein (GFAP), vimentin and smooth muscle actin (SMA) [6,7].

Tumour cells appear immune non reactive to CK20, desmin, muscle specific actin (MSA) and human papilloma virus (HPV) [7,8].

Sialadenoma papilliferum requires segregation from neoplasms as papillary syringocystadenoma or Warthin's tumour [7,8].

Comprehensive surgical extermination of the neoplasm appears as an efficacious mode of therapy. Following competent surgical eradication, tumour reoccurrence may ensue [7,8].

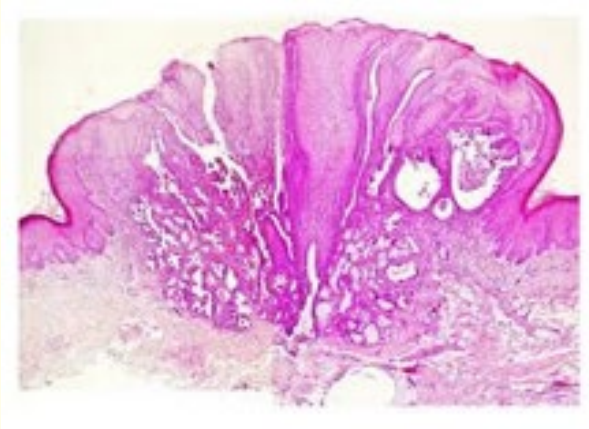

Figure 1: *Sialadenoma papilliferum demonstrating papillary articulations layered by squamous epithelium superimposed upon cystic spaces coated by columnar cells with few goblet cells. Cellular atypia or nuclear pleomorphism is absent [9].*

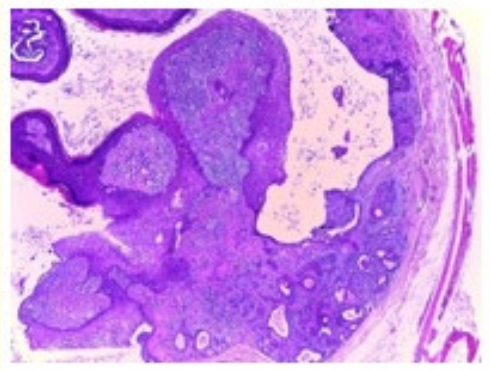

Figure 2: *Sialadenoma papilliferum delineating papillary structures lined by squamous epithelium superimposed upon cystic spaces coated by columnar cells with few goblet cells. Cellular atypia or pleomorphic nuclei are absent [10].*

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9. Image 1 Courtesy: MDP1.com.

10. Image 2 Courtesy: Europe PMC.

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