

Lymphadenoma Arising in the Parotid Gland: A Case Report

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We report a case of lymphadenoma arising in the parotid gland. A 53-year-old female patient presented with a mass in the parotid gland. Grossly, it was a well-demarcated solid mass measuring 3 cm in diameter. Microscopic examination revealed many cysts or duct-like structures in the background of the prominent lymphoid stroma, confirming a diagnosis of lymphadenoma. This particular case was thought to have arisen from an intraparotid lymph node. Lymphadenoma is a rare benign neoplasm of the salivary gland with partial resemblance to other salivary gland tumors, such as Warthin's tumor, cystadenoma, sebaceous lymphadenoma or mucoepidermoid carcinoma. Therefore proper recognition of this rare entity is warranted to avoid confusion in the diagnosis.

Key Words: Adenoma, lymphoid tissue, salivary glands, diagnosis

INTRODUCTION

Lymphadenoma is a rare benign tumor of salivary gland origin which has characteristic histological features.¹ It may, however, cause diagnostic difficulty if the pathologist is not aware of the presence of this rare entity because this tumor partially resembles many other salivary neoplasms. A variety of other better-known salivary gland tumors such as cystadenoma, Warthin's tumor, sebaceous lymphadenoma and even mucoepidermoid carcinoma or metastatic adenocarcinoma may enter into differential diagnosis.¹ All of them have rather clear-cut microscopic

differences and some of them are thought to bear histogenetical relation to lymphadenoma. Here we report a case of lymphadenoma in a 53-year-old female and briefly discuss the differential diagnosis and histogenesis.

CASE REPORT

A 53-year-old female patient presented with a right infraauricular mass which had shown no change in size since it was first detected three years previously. Physical examination revealed a hard, fixed, non-tender mass measuring $3 \times 3 \times 2.5$ cm. No facial nerve palsy or cervical lymphadenopathy was noted. Computed tomography (CT) scan showed a well-demarcated, enhancing mass in the superficial lobe of the parotid gland. Right superficial parotidectomy was performed under the radiological suspicion of pleomorphic adenoma. Grossly, the mass was surrounded by a thin rim of normal salivary gland tissue (Fig. 1). The cut surface was whitish gray and soft with a few slit-like spaces. Microscopic examination disclosed variable-sized cysts and duct-like structures in the background of the lymphoid stroma (Fig. 2). They were lined by columnar, cuboidal, or stratified squamous epithelia (Fig. 3A) and contained pink amorphous material with admixed foamy histiocytes (Fig. 3B). Some of the cysts were surrounded by irregular fibrosis and a few mucin-containing cells were found among the lining epithelium. The lymphoid stroma showed follicle formation with germinal centers and a fibrous capsule with subcapsular sinus was seen around the mass. Sebaceous differentiation was not found on multiple sections and the lesion was diagnosed

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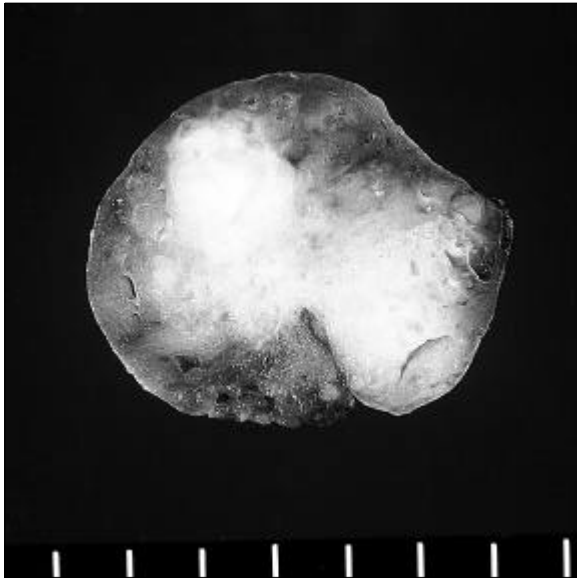


Fig. 1. Superficial parotid gland showing a well demarcated whitish gray soft solid mass with several spaces containing secretory material.



Fig. 2. The mass consists of variable-sized cysts and duct-like structures in the background of the prominent lymphoid stroma. The fibrous capsule with subcapsular sinus can be seen in the periphery of the mass (H&E, ×100).

as lymphadenoma.

DISCUSSION

Lymphadenoma was first described with

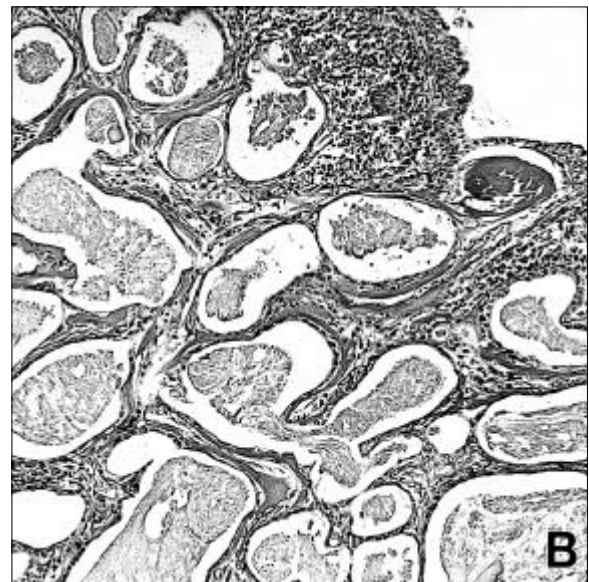
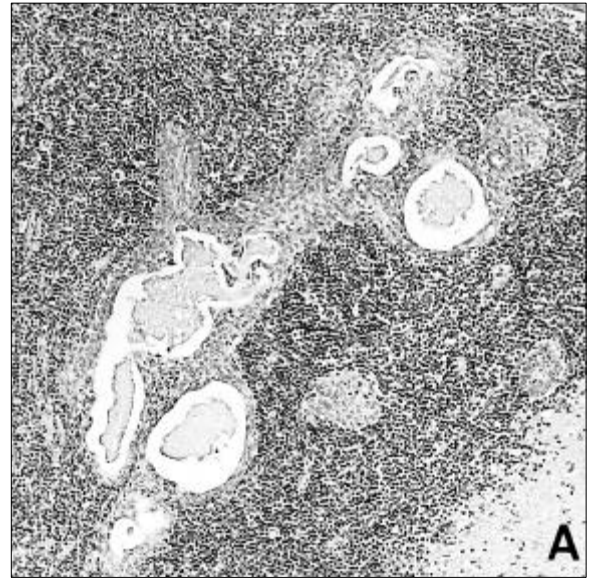


Fig. 3. The cysts and duct-like structures are lined by metaplastic squamous (A), columnar or cuboidal epithelia (B) and contain pink amorphous material (H&E, ×200).

sebaceous differentiation of the lining epithelium and hence was given the name 'sebaceous lymphadenoma'.² Later lymphadenoma that lacks sebaceous epithelium was also recognized. It is most likely that the two kinds of neoplasm represent the same neoplastic process or, at least, are related to each other, given that sebaceous differentiation is a rather common finding in normal salivary gland.^{2,3}

The prominent lymphoid tissue in this tumor is reminiscent of that of Warthin's tumor, with which lymphadenoma is thought to share histogenetic origin.⁴ Furthermore neoplasms with coexisting areas of Warthin's tumor and sebaceous lymphadenoma support the theory of a common histogenesis.⁵ However, bilayered oncocytes typical of Warthin's tumor are not found on lymphadenoma, and papillary configurations are also usually lacking. Therefore differential diagnosis usually does not pose great difficulty.

It has been cited that cystadenoma may have prominent lymphoid elements and that such cases may be indistinguishable from lymphadenoma.³ In our opinion, after review of the histological finding of the cases, those cases may well be classified as lymphadenoma since the lymphoid element is too prominent to not be labeled as the dominant neoplastic component.

Lymphadenoma can superficially resemble even mucoepidermoid carcinoma (MEC) because MEC sometimes incurs prominent tumor-associated lymphoid response⁶ and because epithelial cells in lymphadenoma sometimes contain mucous cells. But the absence of intermediate cells and cytologic or architectural atypia usually helps to differentiate lymphadenoma from MEC and sometimes from, metastatic adenocarcinoma.

Histogenetically, lymphadenoma and Warthin's tumor are thought to arise from heterotopic salivary ducts present within preexisting intraparotid or paraparotid lymph node. Alternatively, the prominent lymphoid tissue may result from reactive proliferation in response to the possibly

irritating effect of the neoplastic epithelial component.⁶ In this case, a fibrous capsule with subcapsular sinus was noted and therefore, the lymphoid tissue may actually represent a lymph node, thus supporting the first theory. Nevertheless we think that this view to explain the histogenesis of this rare tumor cannot be generalized and that further studies are required.

We report a case of lymphadenoma in the parotid gland. This particular case is worthy of attention due to its rarity and possible suggestions for the histogenesis of this tumor.

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