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WARTHIN'S TUMOUR –A RARE CASE OF SALIVARY GLAND PATHOLOGY

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ABSTRACT

Warthin's tumor is a relatively rare and generally benign neoformation whose incidence is second only to the pleomorphic adenoma. 84% of all Warthin's tumor strikes the parotid gland. The tumor is usually asymptomatic and may be associated with varying degrees of pain not necessarily an indication of malignant transformation in the tumour. The tumour is managed easily by surgical excision. We report a typical case arising in the right parotid gland of a 54-year-old female patient.

Keywords: Warthin's Tumour, Parotid Neoplasms, Parotidectomy

INTRODUCTION

Warthin's tumor or papillary cystadenoma lymphomatosum is a well recognized monomorphic adenoma constituting a minority of salivary gland tumours **[1]**. The tumour was first described by Aldred Scott Warthin, a professor of pathology, University of Michigan, Ann Arbor, MI, USA in 1939 **[2]**.The tumour is relatively rare, involves the parotid gland of an elderly male patient in the fifth to seventh decade of life **[3]**. It is usually asymptomatic or presents as slowly growing, most often at the angle of the mandible **[4]**. Warthin's tumour can hence, be identified as benign tumour by clinical inspection or palpation **[5]**. We report a unilateral case involving the right parotid gland in an elderly female patient.

CASE REPORT

A 54-year-old female patient reported to the Department of Oral and Maxillofacial Surgery

with a complaint of swelling below the right ear since 1 year. It was insidious in onset, asymptomatic and was gradually increasing in size with no change in the texture or skin over the swelling was reported.

General physical examination revealed a moderately built and nourished patient with satisfactory vital signs. Local extraoral examination revealed a solitary, localized roughly oval swelling in the right preauricular region measuring about 5x4cm with elevated ear lobe.

Intraoral examination revealed normal mucosa and orifices of the parotid gland appeared to be normal. Based on the history and clinical examination, a provisional diagnosis of benign tumour was given.

A differential diagnosis of pleomorphic adenoma, warthin's tumour, a low-grade parotid malignancy lipoma and neurofibroma arising in the salivary gland were included. Since the above finding apparently suggested a benign neoplasm of the parotid gland, a superficial parotidectomy was performed under general anesthesia and the specimen was sent for histopathologic examination.

Microscopically, the sections showed papillary projections of ductal epithelium enclosing a cystic lumen and a lymphoid stroma.

The epithelium was bilayered with inner columnar luminal layer with centrally placed nuclei. The epithelium was supported by lymphoid rich stroma composed chiefly of lymphocytes interspersed with few macrophages and plasma cells. Few areas showed germinal centers.

The lesion appeared to be well circumscribed with a thin capsule. The surrounding regions showed normal serous acinar glandular structures **(Figure 1, 2, 3)**.

Histopathologic findings were consistent with Warthin’s tumor or papillary cystadenoma lymphomatosum. The patient was followed up for 1 year and no recurrence was observed.

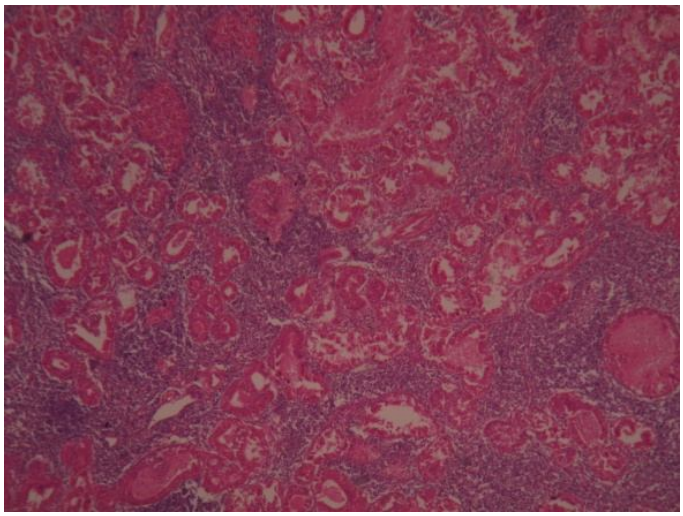

Figure 1: 4x Magnification Image Using Trinocular Microscope

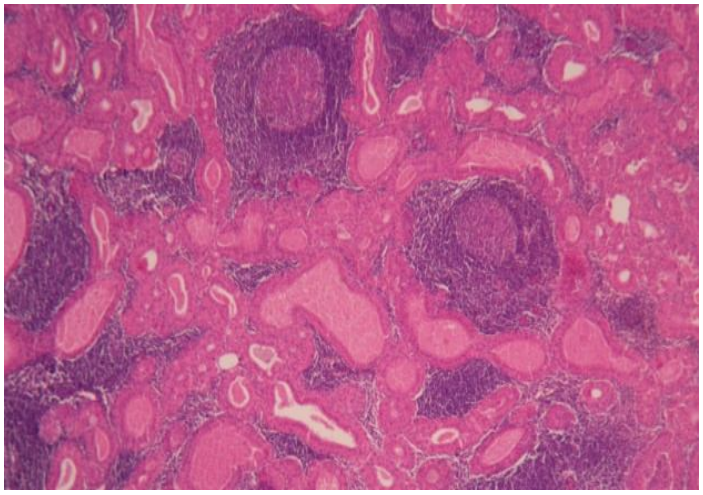

Figure 2: 10x Magnification Image Using Trinocular Microscope

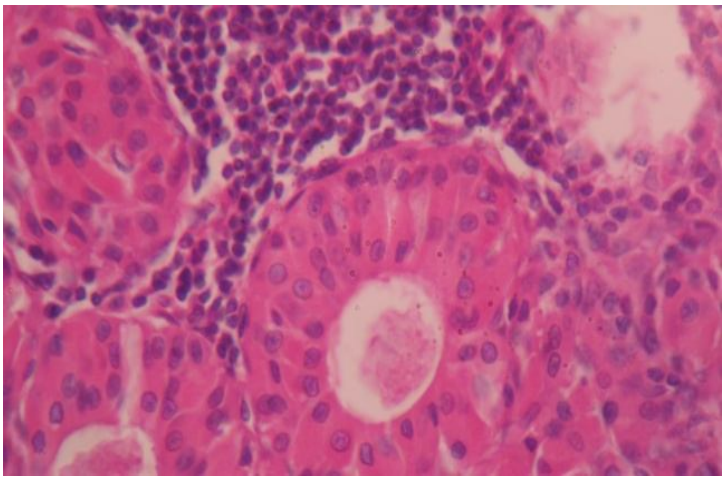

Figure 3: 40x Magnification Image Using Trinocular Microscope

DISCUSSION

Papillary Cystadenoma Lymphomatosum or Warthin's tumour, a curious benign neoplasm with its intimidating histologic name, is the second most common salivary gland neoplasm 5. It was first reported in **1895 by Hildebrand. Albrecht** and **Artz in 1910** termed this salivary gland tumour papillary cystadenoma However, the eponym Warthin's tumour has been extensively used ever since Warthin reported two cases of this tumour in 1926. The term adenolymphoma has been used but is objectionable according to some authors who feel thatthis term overemphasizes the lymphoid component and may give the mistaken impression that the lesion is a type of lymphoma **[4, 6]**. The histogenesis of these tumours has long been disputed **[1, 3]**. **Eveson JW and Cawson RA** in their review have quoted **Albrecht and Ariz** who in 1910 first proposed the heterotropic theory of origin from neoplastic proliferation of salivary gland ducts present within intraparotid or paraparotid nodes **[6, 7]**.

Papillary Cystadenoma Lymphomatosum represents 10 to 14 percent of all salivary tumours **[7]**. It accounts for 5 to 13.5 percent of all primary epithelial parotid tumours **[7]**.

The tumour occurs almost exclusively in the parotid gland.However; tumours arising in the submandibular and sublingual salivary gland have also been reported. The intraoral accessory salivary glands are rarely involved. Intraoral lesions have been reported on the palate, buccal mucosa and lips. Papillary Cystadenoma Lymphomatosum is the most common multifocal parotid tumour; 4 to 14 percent being bilateral. About 4 percent of cases have multiple unilateral tumours and upto 12 percent of patients develop more than one lesion either synchronously or metachronously. Bilateral synchronous tumors are rare but have been reported. The presence of the tumour in an extraparotid lymph node is well recognized and occurs in about 20 percent of the cases. The usual presentation is that of a painless, movable swelling at the lower pole of the parotid gland.

The tumour usually shows a very slow growth and. is characterized by a well-circumscribed egg-shaped swelling of 1 to 3 centimeters in diameter. However, a tumour exceeding 10 centimeters in diameter has been reported in the literature **[1]**. The majority of these tumours are benign. This tumour rarely invades the surrounding salivary gland and it is only a normal salivary gland displaced by tumour. The salivary gland usually retains its normal function and demonstrates only occasionally slight inflammation. Thus the

salivary gland need not be removed completely.

Microscopically, the tumour is usually discrete and surrounded by a thin capsule, which may be complete or incomplete. A subcapsular sinus may be evident in about 47 percent of the cases. The epithelial component forms a typical double layer of finely granular, oncocytic columnar or cuboidal cells with papillary projections protruding into the humma of macrocysts and microcysts. Oncocytes are epithelial cells stuffed with mitochondria that impart to the cytoplasm the granular appearance. The luminal surface of outer cells may form small blebs resembling apocrine secretion. The cysts usually contain eosinophilic secretions or amorphous material, while some may contain cholesterol clefts and epithelial and inflammatory cells. Laminated bodies resembling corpora amylacea are seen in 13 percent of the cases. The lymphoid component consists of small lymphocytes with fewer plasma cells, macrophages and mast cells. Germinal follicles are present in 57 percent of the tumours. Enucleation of the tumour is found to be satisfactory for Warthin's tumour. Some surgeons prefer local resection with minimal surrounding tissue; others opt for superficial parotidectomy to avoid violation of tumour capsule. A one to fifteen percent recurrence rate has been reported. However it is unclear whether these are trace recurrences or secondary tumour sites, as the tumour is known to be multicentric.

CONCLUSION

Warthin's tumour is found almost exclusively in the parotid gland. It is the second most common salivary gland neoplasm, and exhibits male predilection. FNA has good overall accuracy for diagnosing salivary gland neoplasms. A better understanding of this tumor could help family physicians maintain a broader initial differential diagnosis and plan a suitable treatment plan for the patient.

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