Warthin's Tumor of Bilateral Parotid Glands: A Case Report

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Abstract Bilateral Warthin's tumours of parotid constitute a small proportion of all salivary gland tumours. We present a case report of surgical management of a prototype case.

Introduction

Papillary cystadenoma lymphomatosum is a benign hamartoma or reactive proliferation of ductal salivary gland cells and lymphoid elements; that is commonly referred as a Warthin's tumor [1, 2]. They are most common in parotid glands and around 11% of all benign salivary gland tumors [3]. In 4–6% of cases Warthin's tumors occur bilaterally or two or more tumors are known to occur in same gland [1]. Knowledge of clinical representation and management of bilateral Warthin's tumor is based on the summary of knowledge present in the literature. Observation only [4, 5] and enucleation [4, 5] have been suggested in some articles besides the standard treatment, superficial parotidectomy [6]. However, a clear guideline of addressing the bilateral cases specifically is not yet outlined clearly in the texts.

Report of a Case

A 68-years-old male patient, reported with the complaint of bilateral parotid swellings. Patient had moderate cardiopulmonary conditions as well as allergic to penicillin.

The patient's history revealed swelling in bilateral parotid regions, for 5 years. Condition was neglected and later alternate forms of medicines tried with no demonstrable result. There was gradual enlargement of the tumors. Three months before presentation, enlargement was quite rapid.

On palpation of bilateral parotid glands, the lesions were painless, smooth and mobile. An MRI scan showed bilateral, well circumscribed, heterogeneous masses located in the tails of parotid glands. Approximate dimensions—Right $6\text{ cm} \times 4.5 \times 2.5\text{ cm}^3$ and Left $6 \times 5 \times 2\text{ cm}^3$ (Figs. 1, 2, 3).

There was no sign of facial nerve function disturbance.

No FNA was done as these were frankly benign parotid tumors and the plan was to proceed for bilateral superficial parotidectomy directly. In general, FNA has good overall accuracy for diagnosing salivary gland neoplasms (87–97%) [7], and it has been widely used for the diagnosis of Warthin's tumors.

Management

As mentioned before, patient has moderate cardiopulmonary conditions. Stress echo test was conducted and concluded *negative* for evidence of provokable myocardial ischemia. Diagnosis was chronic obstructive pulmonary disease. Respiratory physician recommended pre-operative, Inj. Hydrocortisone 100 mg intravenous and Duolin inhaler TDS as well as oxygen (2 L/min) with nasal canula continuously.

Both sided superficial parotidectomy were done with all branches of facial nerve preserved (Figs. 4, 5, 6). Tumour capsules were maintained intact. The tumours were chocolate coloured and soft (almost cystic) and were not easily separable from the parotid tissue at their points of origin.

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Fig. 1 Bilateral parotid tumours

Fig. 2 Closer view on lesions of both the sides

There was no post operative complaints related to the facial nerves (Figs. 7, 8, 9).

Histopathology

Microscopy revealed thin, encapsulated tumor mass consisting of tall, columnar, finely granular, eosinophilic

Fig. 3 The MRI showing bilateral parotid swellings

Fig. 4 Exposure lesion exposed surgically

epithelial cells surrounding lymphoid tissues. The epithelium typically forms papillary projections into cystic spaces. Overall features were conclusive of Warthin's tumors.

Fig. 5 Facial nerves

Fig. 6 Excised specimens

Discussion

Historically men are more frequently associated with Warthin's tumor than females, with ratio of 2.5:1 [8]. It is

Fig. 7 Post operative

Fig. 8 Histology of Right parotid tumour

common in elder age groups with the average age of 60 years [8, 9]. Recent reports state that females are also equally endangered due to the increasing smoking habit among women [8]. Smoking increases the risk of Warthin's tumor by eight folds [10].

The common site for Warthin's tumor is "Tail" of parotid glands, but there are cases reported in the upper lip, palates, nasopharynx [11, 12].

Warthin's tumor is a hamartoma or reactive proliferation of ductal salivary gland cells and lymphoid elements. Though it is a benign condition, some reports of malignant transformation are also documented causing facial paralysis [13]. So, complete superficial parotidectomy is essential while resecting the tumor [6, 14].

Fig. 9 Histology of Left parotid tumour

Some controversies are present over treatment options. Some surgeons recommend conservative lines like observation only [4, 5], or tumour enucleation [4, 5], as this condition is benign and painless, by calculating risk to facial nerve branches. Though there are claims of Warthin's tumour growth getting arrested at some stage, there are evidences of these tumours growing to massive sizes, infarcting, necrosing and affecting the facial nerve [15, 16].

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