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46-Year-Old Man with Bilateral Metachronous Pleomorphic Adenoma of the Parotid Gland

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Abstract- The occurrence of multiple distinct tumors in major salivary glands is quite rare. Although the most common tumor with bilateral synchronous or metachronous development is Warthin's tumor, on rare occasions, pleomorphic adenomas have been diagnosed simultaneously as well. In this paper, we present the case of a 46-year-old man with bilateral metachronous pleomorphic adenoma of the parotid gland.

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I. INTRODUCTION

The occurrence of multiple distinct tumors in major salivary glands is quite rare. Pleomorphic adenoma is the most common benign neoplasm of the parotid gland. However, bilateral synchronous pleomorphic adenomas occur infrequently, accounting for less than 0.2% of all parotid gland tumors (1). Bilateral synchronous or metachronous neoplasms of the parotid gland are rarely encountered in clinical practice. The most common bilateral tumor is Warthin's tumor, with a reported incidence of 5–14%, followed by pleomorphic adenoma (2,3). Histologically, they are divided into unifocal or multifocal lesions. Even if it might be very difficult to establish, they also can be distinguished as synchronous or metachronous tumors

regarding the time of their detection (3). In this paper, we present a 46-year-old man with bilateral metachronous pleomorphic adenoma of the parotid gland, which was unique in the duration of the disease and the size of the mass.

II. CASE PRESENTATION

a) Clinical presentation

A 46-year-old man with a slow growing mass in the left parotid that was first diagnosed five years ago and small-sized mass in the right parotid that was diagnosed one year ago (bilateral metachronous neoplasm of the parotid gland).

In palpation and bimanual examination, the mass in the left parotid gland was approximately 5 x 6 cm, and it was firm and mobile without any tenderness or erythema. The facial nerve was intact (Figure 1). The mass in the right parotid gland was 3 x 2 cm, and it was firm and mobile without any inflammation. The overlying skin of mass was normal and the facial nerve had good function.

There was no weight loss, sweating, or fever. The patient did not complain of odynophagia or dysphagia. There was no bulging in the oral cavity.



Figure 1 : Left side parotid Mass

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b) Past History

The patient had no past history of cancer or infectious diseases.

c) Imaging

An axial CT scan showed the well-defined border of the mass in the left parotid gland with a size of

67 x 58 mm. It had solid and cystic foci with heterogeneous enhancement without any extension to stylomastoid and parapharyngeal space. On the right side, he had a well-defined, solid border mass in the right parotid with the size of 32 x 22 mm (Figure 2).



Figure 2 : Bilateral Parotid mass in patients, axial CT scan

d) Histopathology and laboratory tests

In cases of a bilateral parotid mass, systemic diseases, such as HIV, Sarcoidosis and Sjogren, should be ruled out.

Serologic tests for Sjogren syndrome, tuberculosis, cytomegalovirus, human immunodeficiency virus, and Epstein-Barr virus were negative.

FNA (fine needle aspiration) smears of right and left parotid masses showed several isolated sheets, acini of bland epithelial cells merging with the fibrillar and amorphous myxoid matrix and some bare nuclei that suggested a mixed tumor of the salivary gland (Figure 3).

Permanent Pathology revealed a 7 x 5 x 5-cm mass with a creamy color and a nodular surface in the left parotid gland and a 3 x 3x 2-cm firm mass with a grayish color in the right parotid gland

Microscopic Pathology showed epithelial and myoepithelial components with a chondroid background.

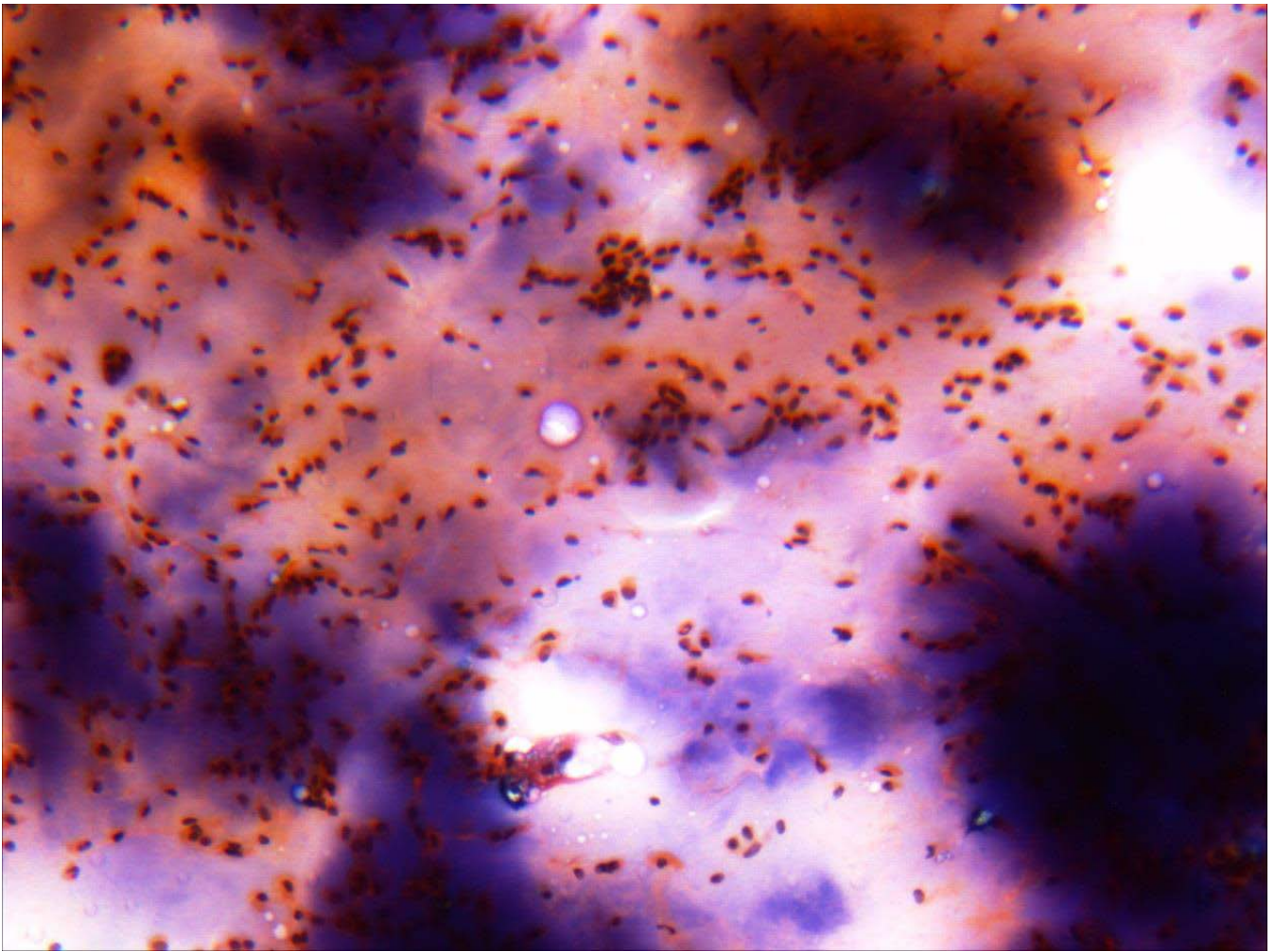


Figure 3 : FNA (fine needle aspiration) smears of parotid mass

e) Treatment and follow-up

After general anesthesia, left standard parotid incision (Blair Incision) was done, and the sub-platysmal flap was elevated. Facial nerve trunk and branches were exposed and preserved and then a total parotidectomy was performed. For the right side, after facial nerve preservation, a superficial parotidectomy was performed. The facial nerve was intact, and there was no recurrence at the six-month follow-up.

III. DISCUSSION

Pleomorphic adenoma, called mixed tumor because of its either epithelial and connective component, accounts for 80% of all parotid tumors. It is mostly located at the superficial lobe of the parotid gland. The average age of onset is between 30 and 50; our case was 46.

Some authors have indicated that the mean duration of symptoms prior to diagnosis 22.9 months, with 36.5 months in male patients and 22.9 months in female patients (4). But our case had the left parotid mass for about 60 months.

Currently, according to the international literature, the most widely-used surgical procedure for

the excision of a superficial lobe benign parotid tumor is superficial parotidectomy. Other inappropriate surgical treatments, such as enucleation, are strongly associated with high rates of tumor recurrence (4, 5).

The simultaneous surgical approach for parotid tumors has not been discussed extensively in the international literature. Nevertheless, some authors have stated that simultaneous parotidectomy for bilateral benign parotid glands tumours should be avoided to prevent possible bilateral facial nerve palsy (6).

In 2007, C.ungari et al. (Department of Maxillofacial Surgery in Italy) indicated that bilateral pleomorphic adenoma could be surgically removed simultaneously with successful preservation of the facial nerve (7).

Silva et al. from Brazil (2006) reported a patient with metachronous bilateral pleomorphic adenoma and performed total and superficial parotidectomy for the left and right tumors. However, on the left side, some facial nerve branches were removed, inducing partial paralysis (8).

Our case underwent simultaneous left total parotidectomy and right superficial parotidectomy with intact facial nerves.

Thus, we would suggest simultaneous bilateral parotidectomy as the most indicated surgical approach, particularly in healthy patients with assured clinical and cytological diagnosis and without evidence of any other systemic diseases.

IV. CONCLUSION

We would suggest simultaneous bilateral parotidectomy as the most indicated surgical approach, particularly in healthy patients with assured clinical and cytological diagnosis and without evidence of any other systemic disease.

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