CASE REPORT

Bilateral multifocal Warthin tumours

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SUMMARY

Warthin tumour, also known as papillary cystadenoma lymphomatosum, is the second most frequent benign tumour of the parotid gland after pleomorphic adenoma. A 57-year-old man was referred to our hospital with bilateral buccal masses without pain. He presented with a 1-year history of the condition and stated that growth of the mass has accelerated during the last 6 months. Ultrasonography examination showed two heterogeneous solid masses. Axial contrast-enhanced CT image revealed bilateral heterogeneous solid masses. The masses showed enhancement after contrast administration (95 HU). Fine needle aspiration cytology was recommended for further analysis and typical benign features of Warthin tumour was obtained. Right parotid gland including the masses was resected completely. 5 weeks later superficial parotidectomy was performed to the left parotid gland. Histological examination revealed cystic tumour in the parenchyma of parotid gland, composed of prominent lymphoid stroma and large epithelial cells with oncocytic features covering it consistent with Warthin tumour.

BACKGROUND

Warthin tumour, also known as papillary cystadenoma lymphomatosum, is the second most frequent benign tumour of the parotid gland after pleomorphic adenoma.¹ The tumour accounts for about 15% of all parotid tumours.² Epithelial malignancy and clinical manifestation in other location is extremely rare.² There is a strong association with smoking. The incidence of this benign tumour in women has increased which can be explained by the increased smoking rates of women.³

CASE PRESENTATION

A 57-year-old man was referred to our hospital with bilateral buccal masses without pain. He has been complaining for 1 year and stated that the mass was rapidly during the last 6 months. He has a history of heavy alcohol and tobacco (50 cigarettes/day) consumption for 25 years.

INVESTIGATIONS

Physical examination revealed bilateral painless masses in the parotid gland. Ultrasonography examination showed two heterogeneous solid masses measuring 20×15 mm and 26×25 mm diameter in right parotid gland and 35×26 mm diameter in left parotid gland. Multiple lymph nodes were also present in parotid gland bilaterally, of which the largest one was 25×9 mm in the right parotid gland and 37×7 mm was in the left parotid gland. Because of the patient's claustrophobia, instead of MRI, a CT examined was performed. Axial

Figure 1 Axial contrast-enhanced CT image revealed bilateral heterogeneous solid masses.

contrast-enhanced CT image revealed bilateral heterogeneous solid masses (figure 1). The masses showed enhancement (95 HU) after contrast administration (figure 2). A fine needle aspiration cytology was recommended for further analysis and typical benign features of Warthin tumour were observed.

DIFFERENTIAL DIAGNOSIS

Other tumoural lesions are benign lymphoepithelial lesions (Sjorgen's syndrome and Mikulicz's syndrome), chronic sialolithiasis, sialoadenosis, cysts,

Figure 2 Coronal contrast-enhanced CT image revealed multifocal Warthin tumours in the right parotid gland.

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Figure 3 H&E $\times 40$. The cystic tumour in the parenchyma of parotid gland, composed of prominent lymphoid stroma and large epithelial cells with oncocytic features covering it.

vascular malformations and granulomatous diseases (sarcoidosis, tuberculosis and actinomycosis).

OUTCOME AND FOLLOW-UP

Right parotid gland including the masses was resected completely. After five weeks, superficial parotidectomy was performed to the left parotid gland. Histological examination revealed cystic tumour in the parenchyma of parotid gland, which was composed of prominent lymphoid stroma and large epithelial cells with oncocytic features covering it, consistent with Warthin tumours (figure 3). A postoperative follow-up was conducted 3 months after surgery. There was no recurrence till date and the patient is satisfied with the results.

DISCUSSION

Salivary gland tumours are rare, representing only 6–8% of head and neck tumours.⁴ Most salivary gland tumours occur in the parotid gland. Most of the parotid lesions are benign in nature. In the evaluation of salivary gland tumours imaging studies including both CT and MRI are useful. In case of our patient after detecting two heterogeneous solid masses by ultrasonography, CT was performed and bilateral intraglandular heterogeneous solid masses were observed. There was no extraglandular extension and invasion. Although MRI is more

useful to evaluate soft tissue infiltration, perineural infiltration and intracranial extension, we could not perform MRI because of our patient's claustrophobia.⁵ Both parotid glands should be imaged when a Warthin tumour is suspected, because these tumours have a tendency for bilaterality and multifocality.⁶ Tissue diagnosis is required for a definitive diagnosis. In the present case fine needle aspiration cytology was performed. After fine needle aspiration cytology the right parotid gland was resected completely. After five weeks, superficial parotidectomy of the left parotid gland was performed. We report this case because of its rarity.

Learning point

Warthin tumour is the second most frequent benign tumour of the parotid gland after pleomorphic adenoma. Epithelial malignancy and clinical manifestation in other location is extremely rare. There is a strong association of the tumour with smoking.

Contributors All authors who have participated in the work take responsibility for the manuscript which they read and approved, and which has never been published or submitted for publication elsewhere.

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