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Oncocytic Carcinoma of Parotid Gland: A Case Report

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Abstract: Oncocytic carcinoma is a rare malignant carcinoma, representing only 5% of all oncocytic tumors. Furthermore, oncocytic carcinoma of the parotid gland is uncommon, accounting only for under 1% of all salivary gland tumors. We reported an 82-year-old female presented with a right parotid mass. She had experienced a similar complaint six months ago and had undergone treatment. Physical examination showed a mobile and painless cystic mass of the right parotid without facial nerve involvement. Fine needle aspiration biopsy (FNAB) finding suggested benign cystic lesions with inflammatory cells and amorphous debris. Subsequently, she underwent surgical tumor excision and right-sided partial parotidectomy. Histopathological examination showed proliferative tumor cells with an atypical nucleus, abundant eosinophilic cytoplasm, and solid, trabecular, and tubular growth pattern, suggesting an oncocytic carcinoma of the parotid gland. In conclusion, oncocytic carcinoma must be considered in all parotid gland tumors with oncocytic cells despite the rarity. Considering its recurrence and metastasis nature, patients with oncocytic carcinoma should remain in a long-term follow-up. The role of radiotherapy and chemotherapy remains controversial but may be used for treating advanced-stage cases or distant metastasis
Keywords: oncocytic carcinoma; parotid gland; partial parotidectomy

INTRODUCTION

Oncocytic carcinoma is a rare malignant carcinoma that represents only 5% of all oncocytic tumors. Meanwhile, oncocytic carcinoma is uncommon in the parotid gland and accounts for less than 1% of all salivary gland tumors.[1–4] It is characterized by atypic oncocytes, frequent mitosis, destruction and invasion of adjacent structures, and metastasis. The recurrence reported in ranging from 25% to 52% of cases.[2] Up to now, there was only one parotid oncocytic carcinoma case reported in an 80-year-old man in Bandung, Indonesia.[5]

CASE REPORT

An 82-year-old female presented to the surgery clinic with a right parotid mass. The patient had experienced a similar complaint and had it removed six months ago. On examination, there was a mobile, painless, 4x4 cm cystic mass on the right parotid without facial nerve involvement (Figure 1). Ultrasonography examination demonstrated an anechoic subcutaneous nodule with a regular border. Cytologic finding of the FNAB specimen suggested benign cystic lesions with inflammatory cells and amorphous debris. Tumor excision and right-sided partial parotidectomy were performed (Figure 2). Histopathological examination showed proliferative tumor cells with an atypical nucleus, abundant eosinophilic cytoplasm, and solid, trabecular, and tubular growth pattern, suggesting an oncocytic carcinoma of the parotid gland (Figure 3). The patient was discharged from the hospital on the third postoperative day with no further treatment.

Figure 1. Pre-operative clinical features (anterior and lateral views)

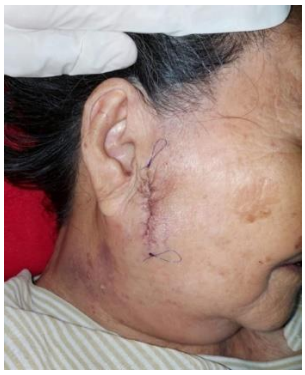

Figure 2. Post-operative wound

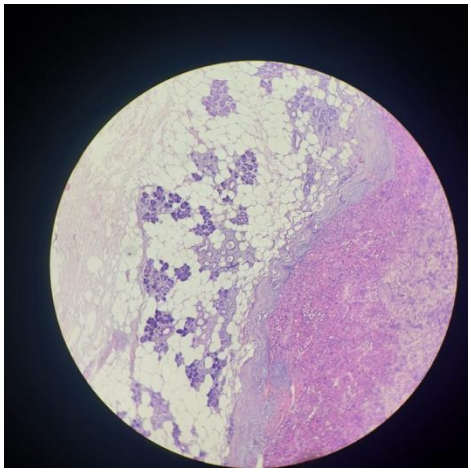

Figure 3. Histopathological finding showed proliferative tumor cells with an atypical nucleus, abundant eosinophilic cytoplasm, and solid, trabecular, and tubular growth pattern

DISCUSSION

Oncocytic carcinoma of the parotid gland is an extremely rare neoplasm with less than 100 cases reported. It represents 11% of all oncocytic salivary gland neoplasms, 0.5% of all epithelial salivary gland malignancies, and 0.18% of all epithelial salivary gland tumors.[1,3,6,7] World Health Organization defines this neoplasm as a proliferation of malignant oncocytes with adenocarcinomatous phenotypes.[8] Malignant morphologic features, invasion, and metastasis may be indicative of malignancy.[3,9] Around one-third of patients develop painful mass, facial paralysis, and discolored or wrinkled skin overlying the gland.[10] But, in our case, the mass was painless, slow growing, had no facial nerve involvement, and nondiagnostic USG and FNAB findings. USG and FNAB have low sensitivity in diagnosing the mass of the salivary gland.[11] The diagnosis should be made based on a combination of clinical features, radiology, and histopathological features.[12] Due to the low incidence of oncocytic carcinoma, complete aggressive surgical excision is the treatment of choice with a better prognosis than conservative treatment.[1,10] The role of radiotherapy and chemotherapy remains controversial but may be used for treating advanced-stage cases or distant metastasis.[2]

CONCLUSION

The oncocytic carcinoma must be considered in parotid gland tumors with oncocytic cells despite their rarity. Patients with oncocytic carcinoma should remain in long-term follow-up because of its recurrence and metastasis.

Conflict of Interest

The authors affirm no conflict of interest in this study.

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