CASE REPORT

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Undifferentiated carcinoma salivary gland tumor regio retroauricula: a case report

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ABSTRACT

Background: Salivary gland tumors are rare, comprising 3-5% of head and neck carcinomas and 0.5% of all malignant tumors. Undifferentiated carcinoma (UC) of the salivary glands is a primary malignant tumor that is poorly differentiated and cannot be classified in other tumor groups. While rare, UC is significant due to its rapid progression. Its pathological nature and heterogeneity remain subjects of ongoing discussion.

Case Report: A 69-year-old woman presented with a lump behind her right ear for 2 months, initially pea-sized and growing to the size of a duck egg. The lump was painful intermittently. Physical examination revealed a solid, irregular mass measuring 8x5cm with firm boundaries. CT scan showed a mass in the right parotid gland extending to the retroauricular region and encasing the right carotid space, suggesting malignancy. The patient underwent wide excision, posterolateral neck dissection, and reconstruction with a deltopectoral flap and skin graft. A second surgery for flap revision and reconstruction was performed 1 month later.

Conclusion: UC of the salivary glands, though rare, is a critical entity due to its aggressive nature. Wide excision with adequate margins, combined with neck dissection, is appropriate for tumors confined to the gland. Postoperative radiotherapy benefits patients at high risk for locoregional recurrence.

Keywords: Undifferentiated carcinoma, Salivary gland tumor, Wide Eksisi, Posterolateral Neck Dissection, Rekontruksi with Flap deltopectoral, skin graft.

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INTRODUCTION

Undifferentiated carcinoma (UC) of the salivary glands is defined as a primary malignant tumor of epithelial structure that is too poorly differentiated to be classified into any other tumor group. Although this group of tumors accounts for only a small proportion of salivary gland tumors, UC is an important entity due to its rapidly progressive nature. However, owing to its rarity and the lack of characteristic features, the pathological nature of UC, especially its heterogeneity, remains a subject of ongoing discussion.[1]

Salivary gland tumors are rare. This heterogeneous group of pathologies encompasses approximately 3–5% of head and neck carcinomas, and only 0.5% of all malignant tumors are of this type.[2] The incidence of all salivary gland tumors varies from 0.3 to 4 per 100,000 population. Although overall tumors are more common in the parotid, the incidence of malignancy is higher in the submandibular and minor salivary glands. Salivary tumors are uncommon in children, but a greater proportion (20–30%) of them are malignant (usually low-grade mucoepidermoid carcinomas).[3]

About 64–80% of tumors are located in the parotids (commonly in the superficial lobe), 7–11% in the submandibular glands, and the remainder are distributed between the sublingual (1%) and minor salivary glands (9–23%).[4] Malignant tumors comprise 15–32% of parotid tumors, 41–45% of submandibular tumors, 70–90% of sublingual tumors, and 50% of all minor salivary gland tumors.[5]

Wide excision with adequate free margins is appropriate for tumors confined to the gland, combined with some form of neck dissection. Some argue in favor of a wider resection for adenoid cystic tumors, but even with radical surgery, it is frequently difficult to obtain adequate surgical margins. The recommendation for radical surgery in submandibular malignancy differs from the recommendations for the preservation of the uninvolved facial nerve in parotid disease. Clinically high-grade tumors should be treated aggressively with excision of the gland plus a 2 cm margin of apparently healthy tissue. Resection of involved nerves with microscopic negative margins is desirable. Large infiltrative tumors with bony involvement are treated with composite resection of the tumor, adjacent soft tissue cuff, and bony resection as appropriate.[6]

CASE REPORT

This case reported a 69-year-old woman with a complaint of a lump on retroauricula region since 2 months before being admitted to the hospital, the lump initially was as big as a pea then grew as big as a duck egg (Figure 1). Pain (+) intermittent. On physical examination, a round mass of 8x5cm was felt solid, humped, irregular edges, firm boundaries, pain (+). On biopsy found undifferentiated carcinoma

Figure 1. The clinical appearance of the tumor before surgery.

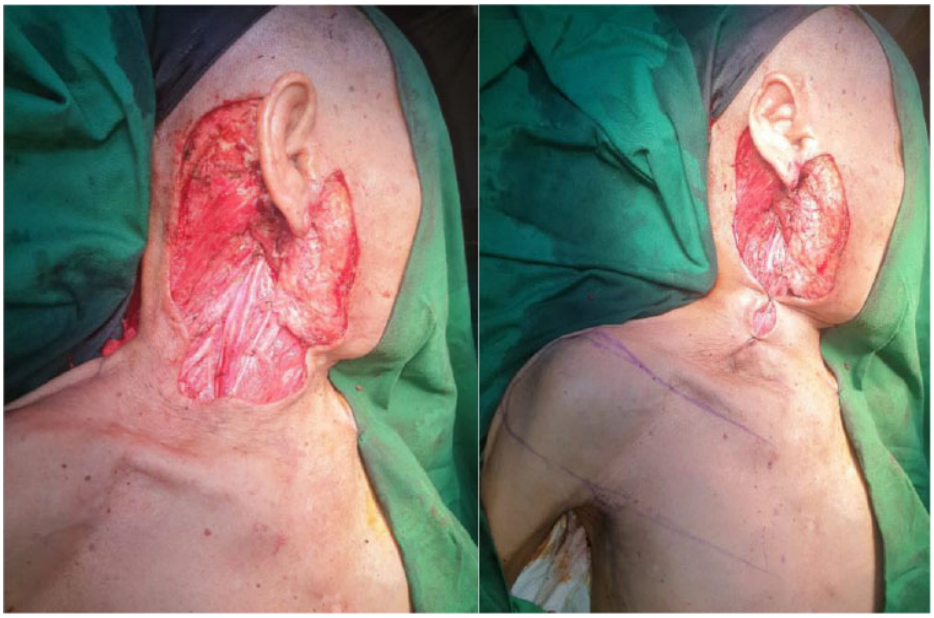

Figure 2. The excission process during the surgery.

Figure 3. Surgical wound after flap reconstruction.

with infiltration of neutrophil cells that may originate from the salivary gland. On the midface ct scan showed a mass in the right parotid gland that extends to the extraparenkim to infiltrate the skin in the right retroauricular region, and encases the right carotid space, according to the image of the malignant mass, Multiple lympadenopathy colli region right left, right submandibular and submental, according to metastatic nodules were also found (according to T4N2Mx in Major salivary gland Staging AJCC 8th). Wide excision, posterolateral neck dissection, reconstruction with deltopectoral flap and deltoid region skin graft was performed (Figure 2 and 3). 1 month after the first operation, a deltopectoral flap cut surgery and reconstruction was performed (Figure 4).

DISCUSSION

In this case, the patient complained of a lump behind the ear, which rapidly enlarged within two months. There was intermittent pain, but no hearing loss. On biopsy, undifferentiated carcinoma was found with infiltration of neutrophil cells, which may have originated from the salivary gland. A midface CT scan showed a mass in the right parotid gland that extended to the extraparenchymal region, infiltrating the skin in the right retroauricular area and encasing the right carotid space, consistent with a malignant mass. Multiple lymphadenopathies were observed in the right and left cervical regions, including the right submandibular and submental areas, consistent with metastatic nodules.[7]

Radiological investigations are frequently employed in the workup of a salivary gland tumor. They are used to delineate the tumor location, such as intraglandular or extraglandular, and whether it is in the superficial or deep lobe of the parotid gland. These investigations also help detect malignant features, define local extension and invasion of surrounding tissues, and identify regional nodal and systemic metastases. Ultrasound is the preferred tool for the initial assessment of tumors in the superficial parotid and submandibular glands. Ultrasound imaging has excellent resolution for these superficial structures and does not carry any risk of radiation. It can also be used to guide the needle when performing fine needle aspiration cytology (FNAC) to reduce sampling error. For tumors located deep in the parotid gland or in the minor salivary glands, CT and MRI are more useful.[8]

Treatment for salivary gland malignancy involves surgical excision with adequate margins followed by adjuvant radiotherapy. The surgical resection of these glands must be well-planned and executed, especially for parotid tumors due to the presence of the facial nerve within it. Superficial parotidectomy with adequate margins is sufficient for benign

Figure 4. Follow-up at two weeks after surgery.

or low-grade malignant tumors without risk factors such as high-grade tumors, advanced-stage disease, or positive/close margins, as most tumors arise from the superficial lobe. If facial nerve function is normal preoperatively, care must be taken to preserve it. The facial nerve should be sacrificed if there is preoperative facial nerve palsy or if the tumor is infiltrating or inseparable from it. Adequate rehabilitative measures, such as immediate nerve grafting or eyelid gold implants, should be performed to avoid postoperative corneal damage.[9]

Postoperative radiotherapy has proven benefits for salivary gland cancer patients at high risk of locoregional recurrence. Several studies have identified important prognostic factors, and postoperative radiotherapy is recommended.[10]

CONCLUSION

Although undifferentiated carcinoma (UC) of the salivary glands accounts for only a small proportion of salivary gland tumors, UC is an important entity due to its rapidly progressive nature. Surgery is the main modality of treatment for salivary gland tumors. Wide excision with adequate free margins is appropriate for tumors confined to the gland, combined with some form of neck dissection. Postoperative radiotherapy is useful for tumors at risk of locoregional recurrence.

ETHICAL CONSIDERATIONS

The authors stated that this article corresponds to the hospital research protocol and the inform consent has been obtained from the patient.

DECLARATION OF CONFLICTING INTERESTS

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AUTHOR CONTRIBUTIONS

All authors contributed to data gathering, analysis, drafting, and revising and approving the article regarding this research to be published.

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