

Acinic Cell Carcinoma of Salivary Gland - Report of a Case

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ABSTRACT

Introduction: Acinic cell carcinoma is a rare salivary gland tumor most commonly occurring in the parotid gland of the elderly female. It used to be often referred to as acinic cell tumor but follow ups revealed that in most cases it behaved as a malignant tumor. The cytological atypia is minimal and hence not a reliable criteria for prognosis. All acinic cell tumors should be handled as potentially malignant tumors.

Report of a Case: We report a case of a sixty years old man who suffered from acinic cell carcinoma of the parotid gland that presented as a 5x5 cm painless lump developed over 8 years. It extended from the tragus of the left ear to the angle of mandible with intact facial nerve function. The lump became painful when the patient lied down facing the left side of the face. After CT scan the patient underwent surgery. The biopsy revealed acinic cell carcinoma.

Conclusions: High index of suspicion for malignancy is required to diagnose acinic cell carcinoma and its follow up.

Key Words: Salivary gland tumor, Parotid gland tumors, Acinic cell carcinoma

Introduction

Acinic cell carcinoma usually affects females (58.8%) more than males in their 5th and sixth decades of life. It is an uncommon malignant salivary tumor; mostly observed in the parotid gland and less often found in submandibular gland and in minor salivary glands in mucosa or palate. In 50% of cases, acinic cell carcinoma may cause pain and / or tenderness.

Case Report

A sixty-year-old man admitted to the Oral and Maxillofacial Surgery Department, Abbasi Shaheed Hospital, Karachi, Pakistan, with complaints of gradually increasing swelling on the left side of the face for the past 8 years. On examination he had a 5x5 cm firm, painless round swelling of extending from tragus of the left ear to the angle of mandible with intact facial nerve function. Lump became painful when the patient lied down facing the left side of the face; otherwise it was non-tender to touch (Figure 1).



Figure 1: A 5X5 cm firm, painless swelling from the tragus of the left ear to the angle of the mandible.

He had a family history of a salivary gland lump of undetermined nature which was removed by surgery. The patient had no other swellings. He was non smoker and did not give history of allergies.

CT scan of neck and face with contrast revealed a 7.7x 6.7x 5.2 cm oval-shaped thick and irregular walled cystic lesion. The margins were quite smooth and well defined. This lump started from the masseter muscle adjoining the left ramus of the mandible and ended in the superficial lobe of the parotid gland. Provisional differential diagnoses include parotid cyst, pleomorphic adenoma, and acinic cell carcinoma.

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The patient underwent a superficial parotidectomy. Facial nerve dissection and preservation was accomplished

After the surgery, the excised mass was sent to the histological examination(Figure 2).



Figure 2: 5x5 cm mass for histological examination

Histopathological findings revealed a circumscribed lesion composed of lobules that were packed with the tubules. The lesion mass existed on the epithelial line and myoepithelial cells. Histochemistry discloses cytoplasm vacuolation and observed thin-walled blood vessels in the stromal cell showing pleomorphism of lesion(Figure 3). This confirmed the diagnosis of acinic cell carcinoma. The swelling was removed completely with an adequate boundary of normal tissue and counseled follow up for observation and recurrence.

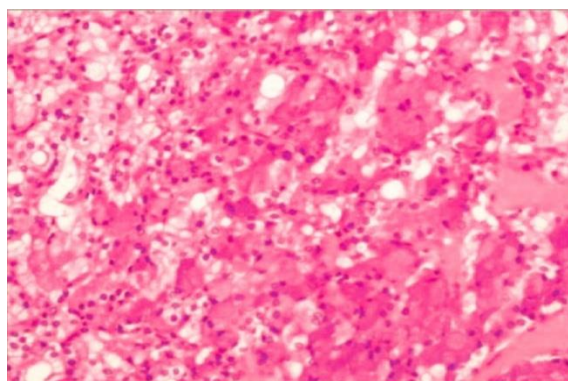


Figure 3: Deceptively bland looking acinic cells of the acinar cell carcinoma (H&Ex100)

Discussion

Acinic cell carcinoma (ACC) is uncommon tumor of the salivary gland which use to be considered as benign lesion but now it is recognized that most of them behave as low grade malignancy. In 1953 Buxton noted that these tumors can metastasize.¹ACC tumors

comprise less than 10% of the salivary gland tumors. The majority of ACC cases (80%) occur in the parotid gland whereas in 13-17% of cases it may affect the minor salivary glands². Women are more likely to have this tumor in their 5th and 6th decades of their life. Radiation exposure, second-hand smoking, chronic wood dust inhalation, and familial predisposition is considered predisposing factors for ACC³. Usually, ACC is a low-grade tumor with a good survival rate and less aggressive growth. It's almost impossible to make a diagnosis of ACC on radiological imaging as the tumor is well circumscribed and slow growing thus we making benign salivary gland tumors.² In our case, the patient had well defined ACC tumor which was slowly developed over 8 years without facial palsy and pain. Ultrasonography is quite helpful in the evaluation of tumor size, location, nature, and variability. Similarly, Ultrasound-guided Fine Needle Aspiration (FNAC) is useful in diagnosing ACC as it is almost painless, inexpensive and fast. CT scan with contrast enhancement imaging is appropriate for the identification of tumor size, involvement, and its relationship with the facial nerve and helps to demonstrate the metastases.³ Histopathology reveals different types of acinic cells in the ACC in addition to classical ACC cells, vacuolated cells, intercalated cells, non-specific glandular cells, and even clear cells.

In the past five years, the cure rate of ACC increased from 55% to 76% by the utilization of modern aspiration strategies.⁴ In 3-16% of cases metastases in cervical lymph nodes was found at the time of resection. In 7-29% metastases were found in the lungs, liver and orbit.^{5,6} Fine needle aspiration cytology (FNAC) is the best modality for the initial diagnosis.

Conclusion

Acinic cell carcinomas are considered as a low-grade salivary gland tumor. Its microscopic picture may be quite deceptive as the nuclei may appear quite bland. High clinical index of suspicion is required as these tumors behave as low grade malignancy.

PATIENT'S CONSENT: Patient provided both oral and written consent for the information gathering and publication of his case.

CONFLICT OF INTEREST: Authors declared no conflict of interest.

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