

# Accessory parotid gland tumor: A rare case reports of acinic cell carcinoma

Falah A. Haweramy, Shakhawan M. Ali, Noroz hama Rashid,  
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## ABSTRACT

**Introduction:** The accessory parotid tumor is rare, with a reported frequency of 1–7.7% of all parotid gland tumors. Wide excision (excision of mass and accessory lobe of the parotid gland) through standard parotidectomy incision is the treatment of choice for the intra-accessory parotid gland tumor with an intact parotid fascia. **Case Report:** We report a case of acinic cell carcinoma of an accessory parotid gland in a 70-year-old female, who presented with a painless mass on the left side of cheek for two years duration. The tumor in this case was surgically resected through standard parotidectomy incision with temporal extension, identification of buccal branch of the facial nerve and ligation of parotid duct. The histopathological diagnosis was acinic cell carcinoma. **Conclusion:** Tumor of accessory parotid gland should always be in the differential diagnosis of mid-cheek mass, confirmation best

achieve by biopsy. Adjuvant treatment must be considered whenever negative margin not achieved.

**Keywords:** Acinic cell carcinoma, Histopathology, Parotid gland, Tumor

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## INTRODUCTION

Accessory parotid gland tumors are masses within salivary gland tissue located adjacent to Stensen duct, but separate from the main body of the parotid gland in approximately 21–61% of the population [1]. They have their own blood supply from the transverse facial artery with secondary duct emptying into the Stensen duct [2].

This glandular tissue was considered to be only an extension of the main parotid gland, but now it is known to be independent structure have their function and anatomic location [3].

They form 1–7.7% of all the parotid gland tumors [4, 5]. Masses arising in the mid-cheek region may often be overlooked as a rare accessory lobe parotid neoplasm [6]. The main parotid glands (18–20%) are malignant tumors but a higher rate of malignancy seen in the glandular tissues (accessory part) reach (26–50%) [2]. This higher rate of malignancy is attributable to the histology of this

gland. As in the submandibular gland, the accessory parotid gland made up of an equal percentage of mucinous and serous acinar units, in contrast to the main parotid gland in which the serous units are predominant [3].

Easy tumor extension predisposes these tumors to significant soft-tissue infiltration due to the lack of anatomic barriers [6]. Here we describe a case of acinic cell carcinoma of an accessory parotid gland. Can be approached through of two incisions as surgical treatment for this tumor either mid-cheek incision or standard modified Blair's incision. Higher incidence of facial nerve branch damage by mid-cheek incision [6].

## CASE REPORT

A 70-year-old female presented to the oral and maxillofacial surgery clinic in Sulaimani surgical teaching Hospital with a left no tender cheek mass (Figure 1). It had been present for two years, with a gradual increase in size and history of a mass in the same region four years ago, had been operated on through direct incision over the tumor. Physical examination revealed a 5x5 cm firm, ill-defined lobulated mass, immobile but not fixed to the overlying skin. There were no additional cervicofacial masses or lymphadenopathy. Facial nerve function was symmetric bilaterally.

Computed tomography scan confirmed a large irregular lobulated out-lines heterogeneous mass lesion measuring (56x50x50 mm) in size involving the soft tissue structures of the left side of the cheek (directly abutting to the maxillary sinus wall and upper maxilla) invading the under-lying muscular compartment (Figure 2). A diagnosis of an accessory parotid tumor was considered in the differential diagnosis. The patient sent for fine needle aspiration cytology (FNAC) the result showed pleomorphic adenoma and suggest excision for final diagnosis. The patient underwent operation through a standard parotidectomy incision with temporal extension. In the operation, the tumor was found to be arising from the accessory parotid gland lying on the masseter muscle, with the parotid duct deeper to it (Figure 3). The buccal branch of the facial nerve had become invaded by the tumor, identification of buccal branch of the facial nerve and ligation of parotid duct It was dissected free and the tumor was excised.



Figure 1: Left cheek mass anterior to parotid gland.

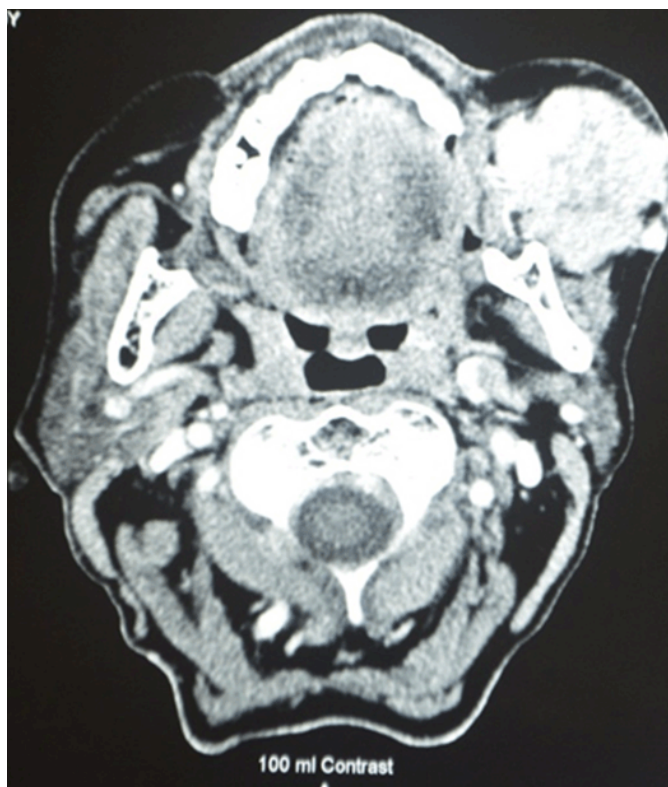


Figure 2: Computed tomography scan showing large irregular lobulated out-lines heterogeneous mass lesion involving the soft tissue structures of the left side of cheek.

## DISCUSSION

The accessory parotid gland is usually located on the anterior portion of the main gland and has a secondary duct emptying into the Stensen duct [7]. There are two types of anterior extension of the parotid gland:

- “facial process” which is attached directly to the main gland,
- “detached glandular mass” or “accessory parotid gland” which is completely separated from the main gland.

The separated accessory parotid glands average distance from the anterior edge of the main gland is about 6 mm. According to various autopsy studies the accessory parotid gland exists in 21–61% of individuals [1, 5, 8, 9]. Toh et al. study described a mixed secretory glands variety (both serous and mucous acini). It appears that present mixed acini may be related to tumors developing at these sites [8]. Spiro and Johnson reported the incidence of parotid neoplasms are 1% arising from the accessory lobe of the parotid gland more than one-fourth of which were primary malignant tumors [5]. White and Perzik reported an incidence of parotid neoplasms is 7.7% arising from the accessory lobe of the parotid gland and 26% of which were primary malignant tumor [10].

A higher rate of malignant tumors in the accessory parotid glands approximately (26–50%) compare to the main parotid glands (18–20%) [10]. Also, the higher rate of malignancy is attributable to the histology of the

accessory parotid gland. The accessory parotid gland is composed of the equal percentage of serous acinar and mucinous units, as in the submandibular gland. In contrast to the predominant serous composition of the main parotid gland. These tumors characterize by significant soft-tissue infiltration due to lack of anatomic barriers to tumor extension [11].

Acinic cell carcinoma reported to be the second most common malignant tumor of the accessory parotid gland [12]. Characteristically slow growing with clinical behavior reflective of a low-grade tumor, Although 25–50% of patients with acinic cell carcinoma can recur if not treated adequately [13]. Clinically more aggressive in the subset of acinic cell carcinomas at presentation metastasis to distant sites particularly the lung and regional lymph nodes. Acinic cell carcinoma histological grading is controversial and, unlike clinical stage, has not proven to be reliable in predicting behavior histomorphologically, good prognosis and best survival results in adults are achieved when there is complete tumor excision suggests by surgical outcomes experience. But in the initial

management of parotid gland acinic cell carcinoma if there are tumors >4 cm, positive margins, invade facial nerve or deep lobe and lymph node metastases, or extra-parotid extension adjuvant therapy specifically postoperative radiation, is recommended [14]. Adjuvant therapy following surgical excision increases survival rate from 29–41.5% at risk population [15]. In the present case, tumor size (5 cm) with positive margins mandated adjuvant radiotherapy.

Diagnostic features, X-ray films are limited in their usefulness and sialograms provided the only visualization of accessory glands for diagnostic purposes [1]. Computed tomography (CT) scan sialography and magnetic resonance imaging are useful for visualizing the accessory parotid gland tumors separately from the main parotid gland [7].

Cheek incision and standard parotidectomy (modified Blair's incision) are two classical surgical approaches for tumors of the accessory lobe of the parotid gland [16]. In cheek incision, facial nerve branches more susceptible to damage because of the superficial location of the buccal and zygomatic branches of the facial nerve [2, 3]. Johnson and Spiro reported 40% incidence of facial nerve damage when the tumors are approached directly over the tumors via a cheek incision [5]. Also by this approach lead inadequate excision of the tumor. Standard parotidectomy incision is the best surgical approach to tumors in the accessory parotid gland with the temporal extension is the most acceptable incision to approach the accessory parotid gland tumors with concomitant accessory parotidectomy for large tumors as in our case this approach is preferable over the cheek incision because it provides a better margin of resection with minimum functional and cosmetic deformities and importantly, there is less danger of injury to the facial nerve branches [17].

## CONCLUSION

Every patient with swelling in the mid-cheek region or present above the imaginary line joining tragus to the midpoint of alae of the nose and upper lip vermilion border they should be put the accessory parotid gland tumors as one differential diagnosis. The histology and the behavioral pattern of the tumors of the accessory parotid gland are mostly same much in comparison with the main parotid gland tumors. Accessory parotid gland tumors form 1% of all the parotid gland tumors. Standard modified Blair's incision is adopted to avoid damage to the facial nerve branches, excision with wide surgical margins, and achievement of the cosmetic outcome, confirmation best achieve by biopsy. Adjuvant treatment must be considered whenever negative margin not achieved.

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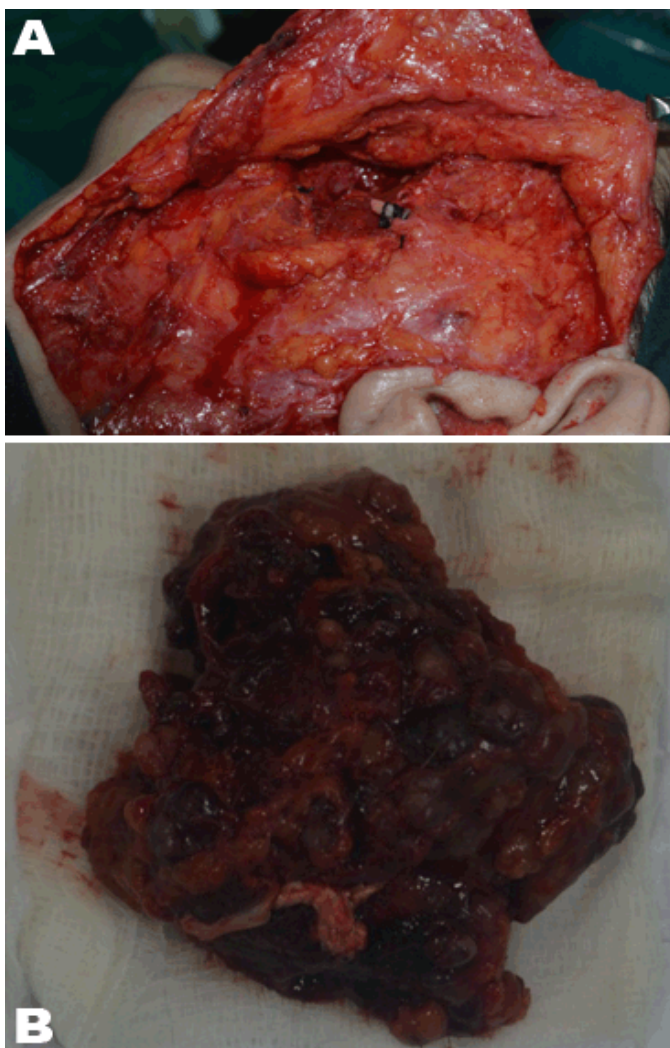


Figure 3: (A, B) Intraoperative picture showing identification of buccal branch of the facial nerve ligation of parotid duct excised mass sent for histopathology.

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## Author Contributions

Falah A. Haweramy – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Shakhawan M. Ali – Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Noroz Hama Rashid – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Nazar A. Amin – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Payman Kh. Mahmud – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

## Guarantor

The corresponding author is the guarantor of submission.

## Conflict of Interest

Authors declare no conflict of interest.

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