Salivary duct carcinoma of accessory parotid

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Abstract:
Accessory parotid gland (APG) is seen in around 21%–56% of individuals. Tumors of accessory parotid are uncommon with an incidence rate of 1%–8% of all parotid tumors. Ductal carcinoma of APG is rare, so no reported incidence was seen in the literature. However, salivary gland ductal carcinoma is reported to be 1% of all salivary gland neoplasms. We report here a case of salivary duct carcinoma of APG. Clinical presentation, investigation, and management are discussed. A 69-year-old female presented with a history of the left cheek progressive swelling of 6 years’ duration. Computed tomography and magnetic resonance imaging showed heterogeneous lobulated ill-defined mass over the left masseter. Fine needle aspiration was inconclusive. Excision of the mass showed salivary duct carcinoma. Ductal carcinoma of APG is an aggressive tumor which needs to be managed aggressively. Standard parotidectomy incision approach seems to be a safe and efficient way of management.

Keywords:
Accessory parotid tumor, salivary duct carcinoma, salivary gland tumor

Introduction
Accessory parotid gland (APG) is seen in 21%–56% of individuals.[1,2] It is a small gland located 6 mm anterior to the parotid gland and about 0.5–1 cm in diameter.[3] The usual location of APG is between or deep to zygomatic and buccal branches of the facial nerve, close to Stensen’s duct.[3] Tumors of APG present as mid-cheek swelling[3] and are rare with the incidence rate of 1%–8%.[4] Of these tumors 26%–52% are malignant.[4] Ductal carcinoma of APG is very rare, so no reported incidence was seen in literature. However, salivary gland ductal carcinoma is 1% of all salivary gland neoplasms.[3]

Case Report
A 69-year-old Saudi female who is a known case with hypertension, dyslipidemia, osteoporosis, and old stroke presented with a history of left cheek swelling of 6 years’ duration. The swelling was gradually increasing in size and associated with on and off pain at the site of swelling. There was no history of weight loss or loss of appetite. There were no other complaints written consent was taken from the patient to report the case.

Physical examination revealed 5 cm × 4 cm left mid-cheek mass, anterior to parotid, over the masseter, mobile, firm in consistency, smooth surface, nontender, and with normal overlying skin. No other masses were found. Three fine-needle aspirations (FNAs) done were inconclusive. Computed tomography (CT) and magnetic resonance imaging showed partially enhancing mass over the left masseter. Computed tomography (CT) and magnetic resonance imaging showed partially enhancing mass over the left masseter. Fine needle aspiration was inconclusive. Excision of the mass showed salivary duct carcinoma. Ductal carcinoma of APG is an aggressive tumor which needs to be managed aggressively. Standard parotidectomy incision approach seems to be a safe and efficient way of management.

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5 cm × 3 cm × 1.5 cm infiltrating invasive Salivary Duct Carcinoma with lymphovascular invasion, but no perineural invasion with 1 mm free margin. The tumor was positive for CK7, pan-CK, carcinoembryonic antigen, and focally for human epidermal growth factor receptor-2-neu. Ki 67 index was high (60%). The tumor was negative for CK20, CK14, CD117, CK5/6.

The patient then underwent left superficial parotidectomy with facial nerve preservation, part of the masseter muscle (tumor bed) excision, and selective left level 1, 2, and 3 neck dissection on May 13, 2014.

Histopathology result showed normal superficial left parotid lobe. All lymph nodes were negative for malignancy. Masseter muscle (tumor bed) was negative for malignancy.

The patient was advised to have radiotherapy, but she refused. She has regular follow-ups with us, and there has been no recurrence either local or regional. Follow-up CT on September 2015 [Figure 3] was unremarkable.

**Discussion**

Seventy-five percent of APG tumors are benign. Of these benign lesions, pleomorphic adenoma is the most common. Mucoepidermoid carcinoma is the most common of the malignant lesions. The benign lymphoepithelial lesion is the most common nontumor lesion.[1]

Ductal carcinoma of salivary glands is an aggressive tumor and represents 1% of all salivary gland cancers. It is most commonly found in the parotid gland. The local recurrence rate is around 30%. The regional recurrence rate is around 60%. Distant metastasis can reach up to 50% with about 50% 5 years’ survival rate.[3]

The review of English literature showed very few reported cases of ductal carcinoma of the accessory parotid. We report here this extremely rare case of ductal carcinoma of the APG with its clinical presentation, investigation, and management.

Tumors of APG are uncommon. Any cheek swelling should be thoroughly examined, investigated, and APG tumors should be one of the differentials that should be borne in mind. FNA along with CT are the main investigations for such masses.[4]

Surgical excision is the treatment of choice.[3] Reported and generally accepted surgical approaches include intraoral excision,[6,7] and external approach which can be through the following incisions direct skin incision overlying tumor and removal,[9] facelift,[1,10] standard parotidectomy incision with anterior approach.[1]

Postoperative radiotherapy is recommended for high-grade tumors and advanced stage tumors.[8]

We started with an excision of the mass by standard modified Blair parotidectomy incision monitoring the facial nerve as the nature of the swelling was yet to be identified. With the above-mentioned pathology results, i.e., its close margin (1 mm), high pathological grade and lymphovascular invasion, the patient underwent left superficial parotidectomy with facial nerve preservation,
part of masseter muscle (tumor bed) excision, and selective left level 1, 2, and 3 neck dissection.

Owing to the advanced stage of the tumor, the patient was advised to go for postoperative radiotherapy, but she refused.

**Conclusion**

Ductal carcinoma of APG is a very rare but aggressive tumor, which must be seen to and managed aggressively for best results. The standard parotidectomy incision approach seems to be the safest efficient way of managing these tumors to minimize the rates of facial nerve injury and recurrence.

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**Conflicts of interest**

There are no conflicts of interest.

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