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Case Report

Myoepithelial Carcinoma Case Report

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Abstract

Myoepithelial carcinoma is a low-grade malignant tumor of the salivary glands. It is very rare, accounting for < 1% of all salivary gland neoplasm. It is most commonly seen in parotid gland, but has also been reported in the submandibular gland, minor salivary glands and extra oral sites. It is most commonly seen in females; with a peak occurrence in the seventh decade. We present a case of Myoepithelial carcinoma of parotid gland in a 48-year-old male patient presented with huge painless swelling extending from the right parotid to the left chin area of 1 year and half duration. Facial nerve function was intact. Treated by free margins wide surgical excision, followed by concurrent chemoradiation therapy.

Keywords: Myoepithelial Carcinoma; Huge Swelling; Parotid Gland; Malignant Myoepithelioma

Introduction

Myoepithelial carcinoma (MC) is a rare malignancy that most commonly occurs in the salivary glands [1], it accounts for < 1% of malignant epithelial salivary glands neoplasm [2]. Up to 75% occur mainly in the parotid gland followed by minor salivary glands (include the palate, cheek, gum, nasal cavity, maxillary sinus, nasopharynx, base of tongue, and supraglottic larynx) and the submandibular gland [3,4] also it has been described in other sites such as lungs, skin, breast, stomach, and soft tissues [5]. The mean age of occurrence is the fifth to sixth decade and in general, there is no gender predilection, the majority of patients with head and neck tumors present with the primary complaints of a painless mass with duration of symptoms ranging from 2 months to 7 years [3]. Other symptoms vary depending on the site of the tumor and may include: hoarseness, nasal blockage, bleeding from the nose, pain, headaches, and facial weakness and paralysis [6]. Treatment depends on the location and stage of the tumor. Treatment options may include surgery to remove the affected tissues, radiation therapy, and chemotherapy [7].

Microscopically Myoepithelial carcinomas are non-encapsulated and usually multinodular in appearance, with infiltrative borders, the nodules vary in size with intervening thin fibrous septae, and they can exhibit central nodular necrosis. Other less-common growth patterns include diffuse solid, trabecular, and reticular infiltrating patterns [8].

In general, Myoepithelial carcinoma has a poor prognosis and the mortality rate reach up to 40%, while the recurrence rate found to be 36.3% in a study done by Seethala., *et al.* [9].

Case Scenario

- A 48 years old Sudanese male came to oral and maxillofacial surgery clinic complaining from painless extremely huge swelling in the right side of the face presented 9 months ago and increasing gradually in size.
- There was no significant medical or social history.
- Thorough Clinical examinations show a non-tender non-mobile firm lobulated huge Grapes like shape swelling raised the ear lobe with tethered, normal coloured skin and without apparent discharge extended from the right parotid cross the midline to left side of the chin. The facial nerve terminal branches were intact (Figure 1). Intra orally there was no apparent soft palatal swelling or deviation of the uvula which exclude the deep lobe and Para pharyngeal space involvement.
- Incisional biopsy was taken and the histopathological examination showed well-circumscribed multiple nodules surrounded by a dense fibrous stroma and myoepithelial cellular heterogeneity, high mitotic activity and hyper cellularity.
- Metastatic workup was carried out and reported no evidence of distant metastasis.
- Patient was treated by supra omohyoid neck dissection, total parotidectomy, mandibulotomy, wide surgical excision with safety margins. The cervicofacial division of the facial nerve was scarified. Postoperative histopathological examination reported negative margins. The surgical wound was leaved for secondary healing. After 6 weeks patient was referred for concurrent chemoradiation therapy.

- Patient was scheduled for regular close follow- up (Figures 2-5).

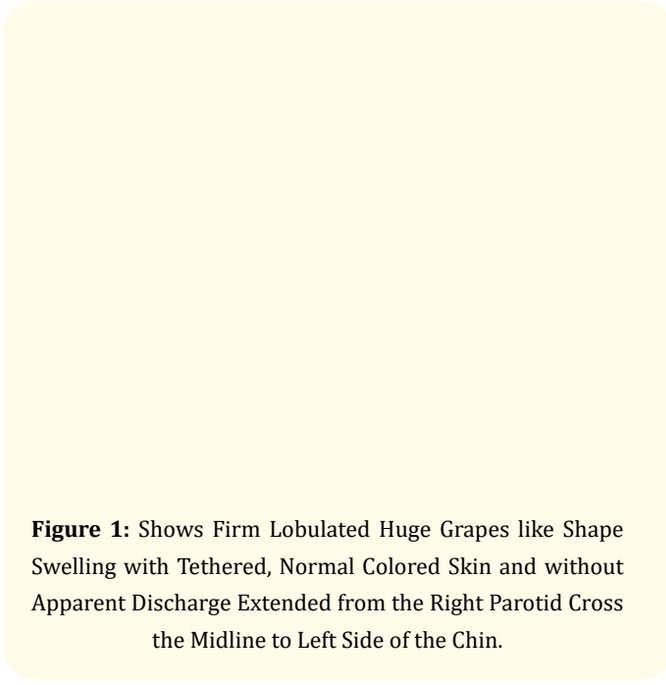

Figure 1: Shows Firm Lobulated Huge Grapes like Shape Swelling with Tethered, Normal Colored Skin and without Apparent Discharge Extended from the Right Parotid Cross the Midline to Left Side of the Chin.

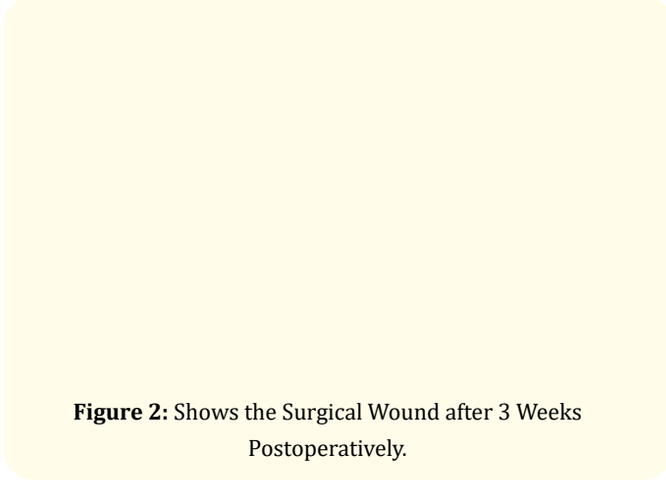

Figure 2: Shows the Surgical Wound after 3 Weeks Postoperatively.

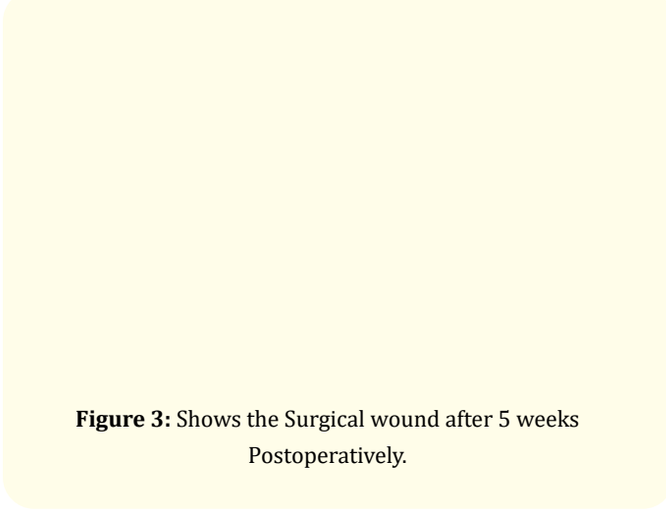

Figure 3: Shows the Surgical wound after 5 weeks Postoperatively.

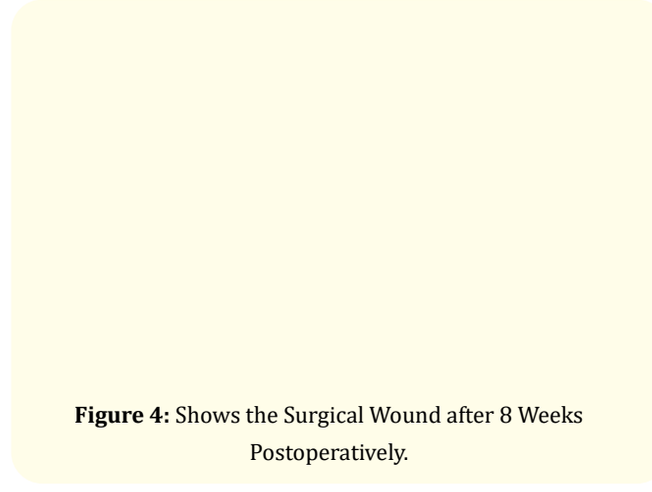

Figure 4: Shows the Surgical Wound after 8 Weeks Postoperatively.

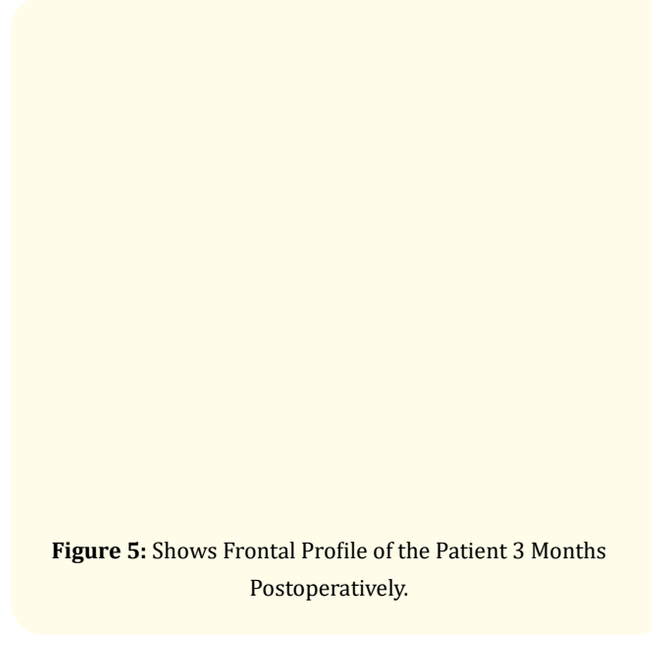

Figure 5: Shows Frontal Profile of the Patient 3 Months Postoperatively.

Discussion

Myoepithelial carcinoma represents 1% of all salivary gland tumors. It is a rare salivary gland neoplasm that mainly localizes in the parotid gland. It affects females more. It is generally seen in the sixth decade [10]. Our case was a 48-year-old male patient and the lesion was on his right parotid gland.

Clinically, most Myoepithelial carcinomas are painless masses. But sometimes Tenderness, pain, hoarseness, dysphagia, and weight loss are noticed by some patients [2]; it has been reported that a sudden rapid increase in size of mass that was present for many years. It may be 2 - 20 cm in largest dimension, no encapsulated, nodular and soft to firm [11]. Four cases of Myoepithelial carcinoma that developed to > 10 cm in size have been reported in the literature [12] the tumor in our case was twice the size reported.

Myoepithelial carcinoma is distinguished from myoepithelioma on the basis of infiltrative growth, cytologic abnormalities, or both, Perineural and vascular invasion are evident in many Myoepithelial carcinomas.

While marked cellular and nuclear pleomorphism, high number of mitotic figures and necrosis are indicative of malignancy [13]. In our case, there is marked mitotic activity, hypercellularity and infiltrative growth was seen histologically.

Myoepithelial carcinoma has an aggressive course, with locally invasive and wide spread metastatic potential to several organs, commonly the liver and lungs, and the tendency to recur, even with free resection margins. The treatment of choice is wide surgical tumor excision, with neck dissection [14,15].

Adjuvant radiotherapy [16] or chemo radiation [17] are often administered in order to minimize local recurrence. In our case Patient was treated by supraomohyoid neck dissection, total parotidectomy, mandibulotomy, wide surgical excision with safety margins. Although there were free surgical margins; there was no construction and the wound healed by secondary healing achieved by continuous dressing the patient was referred for concurrent chemo radiation therapy to prevent recurrence.

Myoepithelial carcinoma has poor prognosis, Local recurrence rates range from 17 - 60% [10]. We did not observe recurrence during the follow up appointments for four years.

Conclusion

In this case we treated a massive Myoepithelial carcinoma of the parotid gland; it is very rare salivary gland tumor. Multidisciplinary treatment approach is recommended, and surgical excision with wide margins followed by radiotherapy remains the treatment of choice for this cancer.

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