Unusual Primary Sarcoma in Parotid Gland of 60 Year Old Man: A Case Report

Abstract
In the head and neck region Synovial sarcomas are rare malignancies of soft tissue. They are about 3% to 5% of head and neck malignancies. They are found in the deep soft tissues of lower extremities, predominantly. The tumors of parotid glands are benign in more than 80% of cases and almost arising from epithelial cells. Anon-epithelial tumors, has also been reported in about 5% of all salivary gland tumors. This is port of 60 year old man with an advanced synovial sarcoma in the parotid gland. The patient is treating with surgery and adjuvant radiotherapy and chemotherapy.

Keywords: Head and neck sarcomas; Parotid gland tumors; Synovial sarcoma

Introduction
Sarcomas are malignant soft tissue tumors, almost found in the deep soft tissues of lower extremities and representing less than 1% of all head and neck malignancies [1]. Primary synovial sarcoma of the parotid gland is very rare [2]. Synovial cell sarcoma (SS) is a high grade sarcoma and it is the fourth most common entity after malignant fibrous histiocytomas, liposarcomas and Rhabdomyosarcomas [1]. Hypopharyngeal and parapharyngeal spaces are the most common sites of localization in the head and neck region [1]. Because of the rarity of this entity, there is no consensus in treatment protocols.

Case Report
A 60 year-old man with a 6 month history of a progressive swelling in the left parotid region (Figure 1). Physical examination found a firm mass 6cm, associated with local attachment to mandible bone and facial nerve palsy. Computed tomography (CT) scan confirmed opacification, soft tissue swelling, and mandibular bone destruction (Figure 2). He does not have any history of trauma or facial surgery. Left parotidectomy carried out and was followed by a regular post-operative treatment. Histology suggest a mass with disrupted capsule and heterogeneous pale - tan to brownish surfaces, grossly and spindle cell sarcoma with Immunohistochemistry revealed positivity in tumor cells for CK8 / BCL2 and focally positive for S100, in favor of Synovial sarcoma. The Ki67 was 30-35%. The patient underwent left parotidectomy with ipsilateral neck dissection with no lymph node metastasis. After surgery the patient received adjuvant radiotherapy at a total dose of 60 Gy, in a conventionally 2 Gy / Fr in 6 weeks and sequential chemotherapy with 4 courses of Doxorubicin and Ifosfamide. Until now, about one year, he is followed with every 6 month facial and neck CT scan and physical exam.

Figure 1: Left Parotid mass with facial nerve involvement.

Figure 2: Left parotid mass in neck CT-scan.
Discussion

Salivary gland tumors are mainly located in the parotid (80%). About 80% of parotid gland neoplasms are benign and more than 95% occur in adults [1]. The most frequently diagnosed (27%) is adenoid cystic carcinoma followed by mucoepidermoid carcinoma (16%), acinic cell carcinoma (14%), carcinoma ex pleomorphic adenoma (8%), undifferentiated carcinoma (7%), salivary duct carcinoma and adenocarcinoma not otherwise specified (both 6%), polymorph low-grade adenocarcinoma (PLGA) and squamous cell carcinoma (both 5%), and epithelial-myoeithelial carcinoma in 2% [3].

The initial pathway of spread of malignant tumors of the salivary glands is Local invasion. Synovial sarcoma is a mesenchymal spindle cell tumor that shows variable epithelial differentiation [4]. Synovial sarcomas may be diagnosed at any age but the almost occur in young adults, between 15 and 35 years of age and more commonly in males. More than 80% arise in deep soft tissue of extremities, with about 50% of cases in the lower limbs and most of the remainder in the upper limbs [5]. Synovial sarcoma may also be developed in regions without any relationship to synovial components, including the head and neck (fewer than 10%), thoracic and abdominal wall (fewer than 10%), or intrathoracic site [3]. Synovial sarcoma usually presents as a slow-growing mass without pain. The spindle cells stain positive for keratin and epithelial membrane antigen. Vimentin is present in spindle cells but absent in epithelial cells. S-100 staining may be positive [6]. Adequate excision and adjuvant radiotherapy when appropriate, with or without adjuvant chemotherapy, is the best treatment. More favorable chemotherapy response was observed in synovial sarcoma than do most other histologic subtypes.

Conclusion

Because of rarity of synovial sarcoma of the parotid gland, there is no consensus in the clinical management. Because of loco-regional and systemic spread, a multimodality treatment protocol, and also long-term follow-up are mandatory.

References