

Subtotal parotidectomy with facial nerve preservation. A case report

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Background

We present a clinical case of a 60-year-old female patient with a parotid tumor which is scheduled for partial resection and an adequate dissection of the nerve and identification of the 5 branches is observed. In this article we try to present the theory and its adequate application to clinical practice in a surgery as delicate as a superficial parotidectomy. An adequate post-surgical performance of the patient was demonstrated and trans-surgical images and subsequent results are presented.

Keywords: Subtotal parotidectomy, Facial nerve, Pleomorphic adenoma.

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Case Report

Oncologic Surgery



Benign parotid tumors generally present as a slowly growing, asymptomatic mass in the preauricular region. Although rare, surgical excision is the mainstay of treatment due to the risk of malignant transformation in some benign tumors. Surgical techniques have evolved over the years, with superficial parotidectomy and extracapsular dissection being the current procedures of choice.

Simple enucleation was the gold standard treatment from the late 18th century to the 1950s, but due to high recurrence rates of up to 70%, a more radical approach was sought, involving preservation of the facial nerve and avoiding complications such as Frey syndrome and facial paralysis. (1)

Superficial parotidectomy is a surgical procedure in which the superficial lobe of the parotid gland is removed. The most common indications for this procedure are neoplasms of the gland. Approximately 80% of all salivary gland tumors occur in the parotid. Of these, 75-80% are benign in nature. (2)

Classically, the surgical approach begins with the modified Blair incision, although the modified Facelift incision can also be used. If necessary, the incisions can be extended to the retroauricular region, subsequently the anterior and posterior skin flaps are raised, respecting the superficial muscular aponeurotic system (SMAS) starting the dissection of the superficial aspect of the gland; We proceed to identify the sternocleidomastoid muscle and the posterior belly of the digastric muscle, which is used as an anatomical reference to locate the facial nerve. The main trunk of the same as well as its main branches are carefully

dissected in order to continue the dissection of the deep aspect of the the superficial portion of the gland; With the facial nerve identified and adequately protected, the superficial parotid lobe is removed along with the lesion. Hemostasis is checked and drainage is placed and fixed to adjacent skin, sutured in two planes and a compressive bandage is placed. It is necessary to consider that the surgical procedure must always be individualized considering the condition of each patient. (3)

It is recommended to use a facial nerve monitor; the advantage of continuous monitoring during surgery is that it allows the surgeon to confirm contact with anatomical structures of the facial nerve, to avoid causing damage to it. (4)

Case report

We present the case of a 60-year-old female patient with a history of diabetes mellitus of 15 years of evolution currently controlled with oral hypoglycemic agents. She went to the oncosurgery consultation due to the presence of a tumor in the right mandibular region, which ultrasound and CT showed growth of the parotid gland. She was scheduled to perform a superficial parotidectomy with preservation of the facial nerve. Marking was performed for the Blair-type retroauricular incision (figure 1) and the anterior and posterior skin flaps were raised, respecting the superficial muscular aponeurotic system (SMAS), beginning the dissection of the superficial face of the gland (figure 1), identified the sternocleidomastoid muscle and the posterior belly of



Figure 1. Upper: Marking of the Blair type incision in the pre-surgical period. Middle: Elevation of the upper and lower flaps

(Figure 1. Cont'd) with visualization of the parotid tissue and the superficial muscular aponeurotic system (SMAS). Lower: Superficial resection of the parotid gland with visualization of the preserved facial nerve branches.



Figure 2: Upper: Immediate post-surgery with adequate motor skills of the facial muscles and adequate sensitivity, only reporting slight numbness in the inframandibular part. Lower: Visualization after 5 weeks after surgery, with adequate healing in the re-(Figure

2. Cont'd) auricular area, not visible and at the time of physical examination with adequate clinical evolution.

the digastric muscle as an anatomical reference to locate the origin of the facial nerve and the blunt dissection began, taking care of and preserving its branches (figure 1). Once the resection is completed, it is closed in planes with the placement of a closed drain, which was removed after 7 days. Adequate post-surgical evolution is observed with clinical signs of no motor (figure 3) or sensory affection on the part of the patient. After 5 weeks, adequate healing of the wound is observed (figure 3) with symptoms that do not reveal damage to the facial nerve.

Conclusion

The correct identification of the branches of the facial nerve is essential for post-surgical evolution without any of the complications of alteration in sensitivity and motor skills. It is important to identify the major salivary duct and preserve it to avoid causing complications. In this case, adequate identification of the branches of the facial nerve and no damage to them is demonstrated. This leads to an optimal post-surgical evolution which, as the days go by, will present a complete adaptation to the environment.

Conflicts of interests

There was no conflict of interest during the study, and it was not funded by any organization.

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