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PERIAURICULAR INCISION FOR SURGICAL PROCEDURES ON THE PAROTID GLAND

Incisão periauricular para operações da glândula parótida

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Work performed at the Clinic of General Surgery, Santa Casa de Misericordia de Belo Horizonte, Belo Horizonte, MG, Brazil. ABSTRACT - Background - The most common incisions for parotidectomy consist of opening or pre periauricular extended to the submandibular or cervical region. They can accompany themselves ragged scars, causing local skin deformities. Aim - The purpose of this study was to evaluate the treatment of parotid surgical diseases using periauricular incision. *Method* – Thirty nine patients with parotid tumors were reviewed. Pleomorphic adenoma (20 cases) was the most common disease followed by other benign tumors (9 cases), carcinoma (5 cases), parotid cyst (3 cases) and chronic parotiditis (2 cases). All parotidectomies were performed through a periauricular incision. Results - The parotid tumors were removed in all cases without complementary skin approach. The incisions had good aesthetic result and almost imperceptible scars were verified after six months. The patients were very satisfied with the appearance of the operative scar. All patients complained hypostesia of the operative area during a period not longer than six months. Temporary postoperative facial weakness occurred after 28 operations and was permanent in three of patients operated on for carcinoma. Transitory ear discomfort occurred in 22 patients. Two cases of local infection were recorded. All of these complications have been described previously by other authors using other incisions and are mostly due to removal of the gland. **Conclusion** - Periauricular incision is a good and highly aesthetic option for surgical approach of the parotid.

HEADINGS – Parotid neoplasms. Postoperative period. Complications.

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DESCRITORES - Neoplasias parotídeas. Período pós-operatório. Complicações. **RESUMO** – *Racional* - As incisões mais comuns para parotidectomia consistem em abertura pré ou periauricular prolongadas para a região submandibular ou cervical. Elas podem acompanhar-se de cicatrizes imperfeitas, provocando deformidades cutâneas locais. Objetivo - Avaliar o tratamento de afecções cirúrgicas parotídeas através de incisão periauricular apenas. Método - Foram estudados 39 pacientes consecutivos com moléstias da parótida. Adenoma pleomórfico (20 casos) foi a afecção mais encontrada, seguida por outros tumores benignos (9 casos), carcinomas (5 casos), cisto parotídeo (3 casos) e parotidite crônica (2 casos). Todas as parotidectomias foram realizadas através de incisão periauricular. Em presença de carcinoma, a linfadenectomia cervical foi conduzida por meio de incisão cervical transversa suprahióidea homolateral. Resultado - A remoção da afecção parotídea foi possível em todos os casos sem incisão cutânea complementar. Todas as cicatrizes tiveram bom resultado estético e, após seis meses, elas estavam quase imperceptíveis. Os pacientes revelaram satisfação com o resultado da operação. Fraqueza facial temporária ocorreu em 28 operações. Desconforto auricular transitório foi registrado em 22 pacientes. Todos tiveram hipoestesia da região operada, que perdurou por até seis meses. As complicações encontradas neste trabalho estão descritas na literatura como esperadas em parotidectomia, independentemente do tipo de incisão. Conclusão - A incisão periauricular é opção boa e estética para abordagem cirúrgica da glândula parótida.

INTRODUCTION

Parotidectomy is a surgical procedure indicated for treatment of benign or malignant tumors and certain inflammatory conditions and autoimmune parótida^{12,13}. Parotid tumors are mostly benign, but its progression and treatment require knowledge of the anatomy and localized pathologic features of each disorder^{3,5,9,12}. The treatment aims at complete removal of the diseased parotid tissue, with preservation of nerve facial and all its branches. The gentle handling and conservation of the great auricular nerve are part of good surgical

technique^{2,5,11,13}.

The most common parotidectomy incisions are to Blair and Blair changed, which are opening or pre periauricular extended to the submandibular or cervical^{2,4,5,11,12,13}. These combined incisions can follow up with scars imperfect causing skin deformities locais^{2,12,13}.

The aim of this study was the results of surgical treatment of parotid diseases using only periauricular incision, which is more aesthetic, not to cause cervical or submandibular scar.

METHOD

All 39 consecutive patients with diseases of parotid surgery operated by the author were studied prospectively to evaluate the results of the incision in parotidectomy periauricular. That was the only incision used in all cases.

The indications for parotidectomy were pleomorphic adenoma (20 cases), other benign tumors (9 cases), carcinoma (5 cases), parotid cyst (3 cases) and chronic parotitis (3 cases). The location of disease was right in 16 patients and left the other 23 patients, found that the 5 carcinomas focused on the left. There were 16 men and 23 women, aged between 15 and 77 (Medical 48) years. According to ethnicity, 18 were whites, 17 and 4 pheodermics black patients. This proportion is not different from that found in the distribution by ethnicity in our population.

The incision began at periauricular preauricular vertical and continued margin tragal, surrounded the ear lobe to the retroauricular area, reaching the mastoid process of the occipital bone (Figure 1A). The skin was dissected superior, anterior and inferior to the identification of the limits of the parotid gland and its condition, which were placed through the operative field (Figure 1B). We used two techniques to free the skin flap: the cases of carcinoma the skin was dissected above the parotid fascia, and in all benign conditions, the skin flaps encompassed the parotid fascia, with the goal of reducing the incidence of Frey syndrome, also known as gustatory sweating syndrome. It results from damage to the parasympathetic fibers, so anarchic that regenerate to innervate the sweat glands in the region of the face close to the nerve. Stimuli that usually cause the parotid excretion also cause facial sweating ^{2,5,12}.

In all cases of carcinoma, a second transverse incision was performed in the neck at the hyoid bone, the same side of the tumor. A total parotidectomy was complemented by the suprahyoid lymphadenectomy performed through a cervical incision.

After parotidectomy and careful hemostasis, the wound was closed in one or two planes. In all patients, the subcutaneous tissue was sutured with separated invertentes or continuous suture, using 4-0 plain catgut wire. In most cases, the skin edges were properly

approached only by the suture, no additional maneuver (Figure 1C) ^{6,7}. However, when the skin was not fully united, added to continuous intradermal suture with nylon 4 - 0. After total parotidectomy and removal of larger tumors, put up a continuous suction drainage tube, which was withdrawn until the third postoperative day, when patients were discharged home (Figure 1D). Disorders in children and in partial parotidectomy drains were not used.

All patients were followed prospectively during the period ranging between six months and years. We assessed the cosmetic results and complications of this procedure.



FIGURA 1 - Parotidectomia parcial através de incisão periauricular. A - Incisão periauricular. B - Dissecção de um adenoma pleomórfico da parte inferior parotídea; observar a pele que foi tracionada superiormente, anteriormente e inferiormente, expondo toda a glândula. C - Vista final do campo operatório após a remoção tumoral; observar o tronco do nervo facial e seus ramos principais dissecado. D - Síntese da ferida cirúrgica sem sutura da pele; observar que as bordas cutâneas foram aproximadas apenas pela sutura do tecido subcutâneo; um dreno tubular de aspiração contínua foi colocado na parte inferior da incisão.

RESULTS

All parotid tumors were removed without additional incisions. Where was indicated lymphadenectomy, cervical incision was sufficient for radical resection of cancer.

The patients had an uneventful postoperative general. The incisions were aesthetically very satisfactory and the scars become almost unnoticeable after six months.

All patients showed hypoesthesia of the operated area for a period not exceeding six months. Temporary loss of sensitivity of the ear lobe without other repercussions, was reported by 22 patients during the

first two months postoperatively, probably due to the incision and manipulation periauricular great auricular nerve. Partial and transient limitation of mouth opening was observed in 26 patients and was attributed to local inflammation that reached the temporomandibular joint. This symptom disappeared completely during the first postoperative month.

Lassitude temporarily lower face occurred in 28 patients, of which three cases of total parotidectomy for cancer, it was final. There were two patients with local infection, treated with antibiotics. Frey's syndrome was transient in four cases of parotidectomy. All these complications improved and the final results were very satisfactory. There have been no complications.

DISCUSSION

The surgical approach to parotid tumors had considerable development in recent years. The parotidectomy is often indicated for benign tumors, pleomorphic adenoma being the most frequent neoplasm in this glândula^{2,3,4,5,9,11,12}.

It is important to emphasize the higher incidence of all diseases and in particular all parotid carcinomas in the left parotid. In literature, there is no record of any factor which may lead to increased incidence of disease in a parotid gland. Therefore, it is considered this finding worthy of greater research.

The incision is periauricular procedures established and widely used in plastic surgery to facial aesthetics, but have not found this approach to parotidectomias^{1,8,10}. According to this prospective study, the incision periauricular offers surgical field with proper exposure, even to make up total parotidectomy and to treat larger tumors, with good results and without additional risk of complications.

Most patients with postoperative complications require only explanation of the adverse effect occurred and guidance directed the care to be followed. It should inform them that generally improves the complication and even disappears completely in some semanas^{2,4,5,11,12,13}. According to the literature, the problems that occurred in this series are common after parotidectomy and do not require special care. They are

transient and self limiting, with functional and aesthetic restoration of the face in a few months^{1,2,4,5,8,10,11,13}.

All adverse effects occurred in parotidectomy incision through periauricular were also described in similar proportion in the incisions of Blair and Blair changed. Most of these complications resulted from the parotidectomy rather than the type of incision^{1,8,10}.

CONCLUSIONS

The incision periauricular is a good option to approach the treatment of parotid benign and malignant diseases.

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