Surgery for tumors of the parapharyngeal space (PPS) requires adequate exposure to identify and protect vital structures. Thus transcervical and transcervical-transparotid approaches to the PPS may be enhanced by mandibulotomy for better visualisation. We have chosen this approach with single mandibulotomy just in front of foramen mentale and without lip incision. We present a 39 years old male who was undergone surgery for polycentric recurrence of a pleomorphic adenoma of the parapharyngeal space.

Key words: parapharyngeal tumors, pleomorphic adenoma, transmandibular approach

INTRODUCTION

Parapharyngeal tumors are rare tumors, representing only a 0.5% of head and neck neoplasms. Most of them (55.6%) are of salivary gland origin, 27.8% are neurogenic, and 16.6% are miscellaneous. Removal of parapharyngeal tumors has been always problem from surgical point of view because of limited access and numerous neurovascular structures nearby. Removal of parapharyngeal tumors has been always problem from surgical point of view because of limited access and numerous neurovascular structures nearby. There have been described several surgical approaches to para-pharyngeal space and infratemporal fossa. Each one has advantages and disadvantages. In this case review we are presenting our experience with transmandibular approach to parapharyngeal space for removal of benign deep parotid lobe tumour.

CASE REPORT

We are presenting a case of 39 years old male with progressive dysphagia over a few weeks period. Patient also had a history of pleomorphic adenoma excision in left superficial lobe of parotid gland few years ago. Now in oropharynx there was bulging of left tonsil and left pharyngeal side wall mucosa. On palpation small, non tender, mobile mass in left parotid region, infraauricular was presented. CT scan of the skull base and neck showed well defined mass in the left parapharyngeal space extending to the angle of the mandible and posterior to the pterygoid plates, and another one, which was smaller and infrauricular located (Figure 1).

There were no lymphadenopathy noted. Parapharyngeal tumor has been removed via transmandibular-transcervical approach. Classic skin incision for parotidectomy was performed but extended anteriorly to opposite submental region (Figure 2). Left submandibular gland was removed for better access (Figure 3). Mandibular osteotomy anterior to mental foramen was done in a view of sparing inferior alveolar nerve, with elevation and lateral rotation of hemi mandible (Figure 4). This procedure enabled well tumour identification (Figure 5) and adequate excision (Figure 6).

Infraauricular parotid mass was identified and excised sparing facial nerve by classical parotid approach. Osteotomy was plated with two titanium plates. Gingival cuts closed together with mucosal and underlying tissue sutures. Vacusac drain was positioned (Figure 7). Histopathology confirmed pleomorphic adenoma subsequently. In postoperative period we observed gingival infection as a local wound complication, but appropriate medical treatment has solved it.

DISCUSSION

The potential parapharyngeal space contains the great vessels of the neck, cranial nerves IX-XII, the sympathetic chain and lymph nodes. Surgical acces is difficult and the infrequency of tumors in it make surgery of this part of the head and neck a challenge. The surgical technique has been chosen according to localization, size and vascularity. Our cervical-parotid approach adequate with paramidline mandibulotomy lead to adequate identification, preservation and control of vital neurovascular structures. This approach can make work of surgeons easier especially when there is the need for mandibulotomy for better visualisation.
visualization. In that cases it is not necessarily to perform double mandibulotomy, therefore it spare surgeons time. But it also spare mandibular/mental nerve, and consequentialy neuropathies.

This technique, which may seem more radical and complex is, however, a more logical and conservative approach and owing to the excellent surgical field it is able to keep the delicate surrounding structures intact and reduce the risk of bleeding and potential neurological complications. Temporomandibular (TM) joint function after operation is essential for good rehabilitation of chewing and articulation. Many surgeons will make question regarding TM joint function after un-natural lateral mobilization of the hemi mandible. Un-natural manipulations may cause intraarticular lesions if they are overextended. Therefore some authors do double mandibulotomy to prevent lesion in the joint.

We should mention that lateral extension during intervention was not with too much force, exactly to prevent joint lesions. Six months postoperatively, there was not any visible malfunction of the joint. In addition, we think that limitation of joint motion and pain cannot be directly related to the technique; they mostly depend on the extent of tumor resection or postoperative radiotherapy.

Discussion can be made also regarding of polycentric growth of recurrent pleomorphic adenoma which was not so frequently described in literature. Hypocellular pleomorphic adenomas often have a thin capsule and constitute the most frequently encountered histological type in recurrence.

Recurrence of adenomas can be caused by inadequate manipulation during prior surgery, when rupture of capsule can be made. Considering the fact that the larger recurrent tumor was on unexpectable place in the deepest part of the inner unoperated lobe, the possibility for tumor rest is minimal. In the superficial lobe possibilities for tumor rest are better, even with total extraction in a capsule according to the histopathological findings, and this can be subject of discussion. In our opinion management recurrence of benign parotid disease do not obligate us for surgery based on total parotidectomy.

**CONCLUSION**

Herein we want to present that our approach is good for visibility of the atypical recurrence of PPS tumor and yet not to complicated for surgeon. It also didn’t cause any malfunction of the temporomandibular joint 6 months consequentially. Single mandibulotomy procedures is very useful for improving wider visibility and control of the vascular bundle and facial nerve, but may cause damage of TM joint if the extension of hemimandible is overextended.

**REZIME**

Hirurgija tumora parafaringealnog prostora (PPS) zahteva adekvatan prikaz radi identifikacije i zaštite vitalnih struktura. Transcervikalni i transcervikalno-transparotidan pristup parafaringealnom prostoru može biti udružen sa mandibulotomijom radi bolje vizualizacije. Mi smo odabrali ovu tehniku uz jednostruku mandibulo-
Tomiju neposredno ispred foramena mentale i bez reza usne. Prikazujemo slučaj 39 godina starog muškarca kome je hirurški odstranjen policentrični recidiv pleomorfognog adenoma u parafaringealnom prostoru.

Ključne reči: parafaringealni tumori, polimorfni adenom, transmandibularni pristup

REFERENCES
