

Methods: Retrospective analysis of 47 patients of oral tongue squamous cell carcinoma treated surgically and pathologically staged as T2N0 with clear margins. The study period was from March 2004 to March 2011. Treatment outcome was evaluated in terms of was locoregional recurrence, disease free survival and overall survival. Kaplan Meir survival curves were used for the analysis. The mean follow up period was 28.3 months.

Results: Recurrences occurred in 13 out of 47 patients (27.7%). At 5 years the overall survival is 80.5% and disease free survival is 53.9%. Univariate analysis revealed two significant prognostic predictors for disease free survival: perineural invasion (PNI, $p = 0.037$) and lymphovascular invasion (LVI, $p = 0.05$). This two factors did not have an effect on overall survival ($p = 0.717$).

Conclusion: In oral tongue cancer (pT2N0), PNI and LVI significantly increased the recurrence rate without an impact on survival. Prospective studies with large patient numbers are needed to evaluate this further and to see if adjuvant therapeutic strategies need to be changed.

doi:10.1016/j.oraloncology.2013.03.389

PP147

Mandible reconstruction with fibular free flap after resection desmoplastic fibroma

Manuel Acosta-Feria, Juan Jose Haro-Luna, Benito Ramos-Medina, Antonio Gomez-Poveda, Raquel Villar-Puchades

Oral and Maxillofacial Surgeons, Cartagena, Spain

Introduction: Desmoplastic fibroma is a rare benign tumor being rarely the cases described affecting to maxillary bones. It usually appears in childhood and adolescence age, Of unknown etiology, usually growth fast, producing a hemifacial asymmetry and a limitation in many cases the oral aperture. Diagnostic imaging reveals an expansive and destructive bone lesion usually a large size. The definitive diagnosis is established for the histopathological study. Although it's a benign clinical entity, due to its great capacity of local destruction and relapse, the treatment of choice is the aggressive surgery with subsequent reconstruction. The use of radiotherapy, is reserved to cases in which surgical excision is not possible. The follow-up of these patients must be long term.

Case report: 16-year-old man, who comes to consultation of maxillofacial surgery by a tumor at left hemifacial site of two months of evolution, progressive limitation of the oral opening and pain. In the Orthopantomography appears a large cystic lesion with destruction of the jaw body and branch ipsilateral with affection of the Temporomandibular joint (TMJ). The study with a three-dimensional scan showed a lesion which destruction of the mandibular branch, ATM and left zygomatic arch. After the biopsy of the lesion, the excision of the tumor was made, with mandibular zygomatic arch reconstruction in the same time using a fibular free flap, without any complications intra-postoperative time. The histopathological diagnosis concluded that it was a jaw desmoplastic fibroma. The patient after two year of follow-up is disease-free.

Conclusion: Despite the benign nature of the Desmoplastic fibroma, due to his great aggressiveness and its high capacity of recurrence must carry out aggressive resection of the tumor. Other alternative treatments such as radiotherapy or chemotherapy should be taken into account, but due to the low incidence of this tumor pathology in the maxillofacial territory, there is no conclusive data regarding their effectiveness. New reconstructive techniques through microvascular free flaps, improving the aesthetic and functional results in our patients.

doi:10.1016/j.oraloncology.2013.03.390

PP148

Use of the trapezius flap for reconstruction in head and neck defects

Manuel Acosta Feria, Benito Ramos Medina, Antonio Gómez Poveda

Oral and Maxillofacial Surgeons, Cartagena, Spain

Introduction: The trapezius myocutaneous flap is an effective alternative to microsurgical techniques for reconstruction of surgical defects after oncological resection in oral cavity. The extraction technique is simple, being a predictively viable flap. It may be harvested as an osteomyocutaneous flap and can even be used to reconstruct the mandible. As a main drawback, highlights the need for change in posture of the patient during surgery, which stretches, although not overly, the operative time. We present a series of patients operated in our Department, in which we used the trapezius flap for the reconstruction of surgical defects in the head and neck.

Materials and methods: Nine cases are included in our study. In eight of them the flap was designed as a myocutaneous flap, while in the last patient it was an osteomyocutaneous flap, incorporating the spine of the scapula to reconstruct a segmental mandibular defect created after a tumor excision. Seven cases were oncologic surgical defects (squamous cell carcinomas of the tongue, jaw, retro-molar trigone, tonsillar fossa and soft palate). The other two cases were used to temporal fossa reconstruction after a titanium mesh that were used in a previous reconstructive attempt, were removed because of its exposure with a soft tissue defect. The mean time to harvest of the flap was 65 min.

Results: One patient died of locoregional recurrence of the tumor at 6 months after surgery and another two patients had a flap necrosis by compression of the pedicle. MMSS mobility was recovered in all cases after rehabilitation and physiotherapy. In two cases, surgical wound dehiscence occurred at the back, resolved without the need for skin grafting.

Conclusions: While at present microsurgical flaps are the first choice for the reconstruction of head and neck cancer defects, regional flaps as the trapezius or pectoralis remain a valid and effective weapon when free flaps can not be considered for some reasons, attributable to the patient or to structural problems in the Surgery Departments. The myocutaneous or osteomyocutaneous trapezius flap is easy to manage, with a constant vascular pedicle. No major complications have been found postoperatively.

doi:10.1016/j.oraloncology.2013.03.391

PP149

Experience of the lip cancer treatment in latvian oncological center: 10 year review

Egils Kornevs, Juris Tars, Gunars Lauski, Anna Kazanceva, Kalvis Pastars, Arguts Keirans, Baiba Paulina, Aija Krastina

Riga Stradins University, Department of Oral and Maxillofacial Surgery, Latvia

Department of Head and Neck Surgery of Riga East University Clinic, Latvia

Purpose: A review of 201 patients who were diagnosed with lip cancer from 2001 to was undertaken to analyse the epidemiological

data, to compare the results of surgical and radiation therapy and evaluate long term follow-up.

Material and methods: From 2001 to 2011, 201 patients (151 males and 50 females) with a primary squamous cell carcinoma of the lower lip were treated. Median age of patients was 65.4 years. 88 patients (43.7%) had I stage disease, 68 patients (33.9%) – II stage, 30 patients – III stage and 15 patients (7.5%) IV stage disease. At presentation, regional lymph nodes were clinically negative in 181 patients. 100 patients underwent surgical excision as a primary treatment. Vermilionectomy was performed to five patients. “V” excision were performed to 63 patients, Reconstruction by Abbe flap was performed to 22 patients. Estlander method to four patients. According to J. Liu modified labial tissue sliding flaps for repairing lower lip defects were used in three cases, “stair case technique” were used in three cases. The cases classified as T3 (defects of 65–80%) were reconstructed with cheek advancement flaps in different types (Webster Bernard approach, Karapandzic technique, “Fan flap”) and nasolabial flap also. Microsurgical repair was used in five cases of total lip defect. 56 patients had radiotherapy as the primary mode of therapy and 45 patients received combined method of treatment (surgery and irradiation). In the patients group with clinically negative neck at the first attendance (181 patients), in the follow-up delayed cervical lymph node metastases developed in 12 patients (6.6%) within 2 years of node-up. 32 patients underwent different types of neck dissections.

Results: The results of surgery were generally good. Recurrence of primary tumor developed in 28 patients (13.9%) and was strongly associated with large tumor size, commissure tumors and poor differentiation. The determinate mean survival rate was found to be 82.4% at 2 year follow-up.

Conclusions: We recommend surgery as the primary method of treatment because of the availability of histologically accurate tumour margin assessment and the short rehabilitation period.

doi:10.1016/j.oraloncology.2013.03.392

PP150

Evaluation of reconstructive techniques for anterior skull base defects following tumor ablation

Jayini Thakker, Rui Fernandes

Department of Oral and Maxillofacial Surgery, University of Florida, Jacksonville, FL, USA

Purpose: Reconstruction of craniomaxillofacial cancer defects is challenging when tumors extend to the skull base. Nowadays vascularized flaps are the option of choice. Free flaps have the added benefit of access to more cephalad defects without constraints of rotational arc as with pedicled flaps. We compared various flaps used to reconstruct anterior skull base defects after resection of malignant tumors.

Materials and methods: We identified 14 free or pedicled flaps done to reconstruct anterior cranial base defects. We performed a retrospective analysis to compare patient demographics, tumor histology, surgical technique, and complications among the various flaps. We also compared patients' quality of life by conducting a telephone survey.

Results: All patients had stage 3 or 4 squamous cell carcinoma, most originating in the paranasal sinuses extending to the anterior skull base. There were six radial forearm free flaps, three anterolateral thigh flaps, four latissimus dorsi free flaps and one pedicled supraclavicular flap. Complications included three mesh exposures following radiation treatment, one wound infection, and two flap dehiscences after XRT. Both dehiscences occurred with RFFF and both were redone with TDAP flaps. There were no CSF leaks or donor

site morbidities. There were no complaints of functional deficits with feeding or speech impairments. Some patients reported visual disturbance after orbital exenteration, however they adjusted to this.

Conclusions: Vascularized flaps provide reliable and durable reconstructive options for anterior skull base defects following resection of malignant neoplasms of the craniofacial region. Free flaps such as RFFF, ALT, and TDAP are well suited for these defects. They have a low risk of complications and low donor site morbidity, while offering good functional and esthetic outcomes.

doi:10.1016/j.oraloncology.2013.03.393

PP151

Microsurgical reconstruction of tongue in cancer patients

Igor V. Reshetov, V.I. Chissov, M.V. Ratushnyy, O.V. Matorin, A.P. Polyakov, A.K. Golubcov, F.E. Sevrukov, M.M. Filushin, P.A. Herten

Moscow Cancer Research Institute, Moscow, Russia

Background: The successful development of modern oncology significantly improved survival outcomes of patients with malignant tumors of the tongue. In this connection there arose the need for quality rehabilitation of the operated patients. In the first place the quality of life and the prospect of a complete rehabilitation of patients defined by the efficiency of reconstruction of the tongue.

Methods: for cancer of the tongue were operated on nine patients aged from 18 to 63 years. All patients had primary tumors after pre-operative radiotherapy carried out. The index of the prevalence of tumors in four patients corresponded to T3, and T2 in four patients. In all patients, the tumor was struck by only one half of the tongue, without spreading to the opposite side. During the operation phase simultaneously with resection was performed microsurgical reconstruction of half of the tongue. As the plastic material used free flaps: colon-omental (4), radial (3), thoraco-dorsal flap (1) and flap of the rectus abdominis muscle with implanted mini flaps of nasal mucosa (1). Revascularization of the flap was made with branches of external carotid artery and internal jugular vein.

Results: necrosis flap was not. Good features of the plastic material contributed to the total self closure of salivary fistula in 1 patient. There were no significant complications in the donor wounds we did not observe. Food by oral started 2 weeks after surgery. The natural diet was restored in all patients (100%). All patients reported satisfactory results of the speech function.

Conclusion: Application of autotransplantation tissue to improve the lives of patients undergoing resection of the tongue and contributes to early labor and social rehabilitation.

doi:10.1016/j.oraloncology.2013.03.394

PP152

Triple template method of CAD/CAM assisted mandibular reconstruction

Zheng Guang-sen, Su Yu-xiong, Liao Gui-qing

Department of Oral and Maxillofacial Surgery, Guanghua School of Stomatology, Sun Yat-sen University, Guangzhou, China

Purpose: To design a new CAD/CAM technique to accurately transfer the simulation planning of mandibular reconstruction to real surgery.