

**PD.47 Rehabilitation of patients after resection of mandibular lesions**

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**Introduction:** Reconstruction of the mandible after resection of any type is challenging in many ways because of demands of speech, deglutition, masticatory function and esthetics. Even though many different reconstructive procedures have emerged over the years, bone grafting is the basis for all of them. The ultimate goal is to provide the patient with a functional occlusion either with a removable or a fixed prosthesis.

**Materials and Methods:** Twenty-five patients who underwent some degree of mandibular resection are included in this analysis. The age of the patients ranged from 14 to 66 with mean age being 35.4 years. The sample consisted of 14 males and 11 females.

**Results:** All except two had some form of bone graft reconstruction; 3 had Fibula free flaps and 20 had Iliac crest bone graft. One had metal plate reconstruction as the first stage, with the plan for iliac crest bone graft as the second stage. One patient with tongue carcinoma and radiation to the mandible had no bone graft. 16 out of 25 patients had osseointegrating implants inserted after maturation of the bone. The number of implants in each patient ranged from 2 to a maximum of 14 with a total of 76. 9 patients who did not receive implants were either restored with conventional removable prostheses or their restoration is currently in progress. Of the 76 implants placed, 8 failed to integrate resulting in a success rate of 89.5%.

**Conclusion:** In conclusion, we present our experience in complete oral rehabilitation of patients afflicted with various malignant and benign mandibular lesions. The ultimate goal for these patients is not only anatomical reconstruction with bone grafts but also prosthetic reconstruction with implant supported prosthesis which helps them regain their self esteem.

**PD.48 Microvascular jawbone defects reconstruction: the fibular flap versatility**

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**Introduction:** Jawbone defects reconstruction still represents a complex reconstructive subject for a maxillofacial surgeon. Jaws constitute the bony structure of the face, which provides attachment for the facial and masticator muscle. Therefore bony defects compromise the proper functional purpose; loss of the teeth and the consequent jawbone resorption, resulting in impaired mastication, speech and swallowing function. With every reconstructive treatment morphologic and jawbone structures along with functional properties must be restored. Using modern implantology concepts result in predictable and satisfactory reconstruction.

**Materials and Methods:** From December 1989 to November 2004, 55 patients were treated for mandible reconstruction and 31 for maxillary reconstruction using vascularized fibular flaps. The age of patients ranged from 12 to 68 year. The length of bone flaps varied from 7 to 28 cm. The protocol includes bone augmentation; implant surgery, soft-tissue management at the time of abutment connection, and prosthetic restoration. Fifty-six fibulas were used to reconstruct resected jawbones, 21 to augment extremely atrophied alveolar ridges, 2 for a radionecrosis mandible, 5 to correct post-traumatic sequelae and 2 for a secondary cleft correction.

**Results:** Seventy-nine of 86 fibula flaps healed successfully. Success rate being 92.1%. There were 7 post-operative failures

due to thrombosis. One hundred and seventy-seven implants were inserted bicortically into the fibula bone, and 30 implant-supported prostheses were manufactured. Implant success rate after an average follow-up of 45.9 months of masticatory load was 95.0%.

**Conclusion:** Bony reconstruction represents the first stage of one more complex functional rehabilitation; choosing the best plan of treatment size and characteristics of the bony defects, soft tissues integrity and trophism must be correlated to other variables such as where the defect is and the possible prosthetic-implant purpose of bony reconstruction. In our experience because of its size, dimensions and quality the fibular flap is ideal.

**PD.49 Free tissue transfer in maxillofacial surgical oncology. Analysis of 64 cases**

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**Introduction:** Microvascular free tissue transfer has been introduced as a reconstructive procedure during the last twenty years and has given new perspectives for radical curative surgery in patients previously considered inoperable. Since the introduction of radial forearm free flap, several other flaps originating from various parts of the body have been used and proved effective in the reconstruction of complex surgical defects. The purpose of the present study was to review our experience and audit our results on microvascular free tissue transfer over the last 6 years.

**Materials and Methods:** During the years 1999–2004, 65 free flap reconstructions on 64 patients were performed. Sixteen patients were female and 48 male (a ratio of 3:1) with a mean age of 53 years (range 20–87). There were 51 radial forearm flaps (33 fascio-cutaneous and 18 osseo-fascio-cutaneous), 9 rectus abdominis flaps and 5 free fibula flap.

**Results:** Sixty-one of our flaps completely survived tissue transfer, giving an overall success rate of 93.8%. Twenty patients have died during the follow-up time giving an overall mortality of 31%. The remaining 44 patients (69%) all are alive and free from disease.

**Conclusion:** Free microvascular tissue transfer is a safe and reliable reconstructive option for patients with advanced neoplastic disease, who otherwise would have been considered inoperable. Our results do not differ from those reported from other centers.

**PD.50 Free flap reconstruction of cancer defects of the oral cavity after preoperative radiochemotherapy**

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**Introduction:** Free flap reconstruction has become a routine procedure for closure of surgical defects in head and neck cancer therapy. This study was performed to evaluate flap success and patient morbidity in a combined treatment regime with preoperative radiochemotherapy (RCT).

**Materials and Methods:** Included in this analysis are 303 prospectively followed patients who underwent a multimodal treatment regime for advanced oral and oropharyngeal carcinoma. All patients received preoperative RCT (Mitomycin C,