

Orofacial Tumors; Complexity and Outcome

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Abstract

The anatomic, physiologic and aesthetic complexity of the head and neck poses significant challenges to the management of all neoplasm arising in this compact region. The oral cavity is the most common site for malignancies of the head and neck region (about 30%) with the tongue and floor of mouth, are the most frequent primary sites. The primary objective of a reconstructive effort is an aesthetic result that approaches a normal appearance. Functional consideration, including oral competence, articulation, speech, and the role of the lip in mastication, must be kept in mind during reconstruction of the large lip defects.

The aim of this work is to study the different available surgical techniques for reconstruction of orofacial area after tumor excision and to address the outcome of surgery, aesthetic result and recurrence after surgery.

This prospective study included 75 patients with different orofacial tumors, who were admitted at both Plastic and General Surgery Departments, Sohag University Hospital, Egypt, in the period from Mars 2004 to October 2006. The age of the patients ranged from 7 months to 83 years, 40 patients (53.33%) were females and 35 patients (46.66%) were males.

The aesthetic and functional results were evaluated by patient's questionnaires, photographing and physical examination.

The overall aesthetic and functional results were excellent in 65.41%, very good in 14.66%, good in 17.33% and fair in 2.6% of the cases respectively.

Conclusion:

The local and regional flaps are ideal methods for reconstruction of facial defects because they give excellent color and texture match. Distant flaps have a great role in reconstruction of large facial defect. Although split or full thickness grafts proved to be an easy, simple and fast technique of reconstruction, however the aesthetic results are usually unsatisfactory.

Introduction

Head and neck defects created after tumor extirpation present surgeons with some of the greatest challenges in reconstructive surgery. The intricate interaction between form, function, and appearance is greater in this anatomical site than any other. The importance of the face in social interactions cannot be underestimated. All of these variables and more must be taken into consideration when deciding upon the ideal reconstruction ⁽¹⁾.

The oral cavity and its surrounding maxillofacial and skeletal encasement not only are situated at the central point of the head and neck but also offer the main portal of entry into this region ⁽²⁾.

Orofacial soft tissue masses include: epithelial tumors, fibrous, fibrohistiocytic and fibrovascular tumors, granuloma-like mucosal lesions with giant cells, vascular tumor, neural tumors, muscle tumors, soft tissue lesions with bone or cartilage, non-calcified soft tissue tumors with mixed or ectopic tissues, soft tissue cysts, also there are orofacial bony tumors include maxillary tumors and mandibular tumors ⁽³⁾.

The oral cavity is the most common site for malignancies of the head and neck region (about 30%) with the tongue and floor of mouth, are the most frequent primary site ⁽⁴⁾. The American Association of Oral and Maxillofacial Surgeons stated that oral cancer accounts for about 3% of all cancers diagnosed annually in the U.S. It is diagnosed each year in about 30,000 Americans and responsible for about 8,000 deaths annually ⁽⁵⁾.

The most common faciodermal malignancy is basal cell carcinoma

(BCC), squamous cell carcinoma (SCC), and malignant melanoma in that order ⁽⁶⁾.

Aim of the work

The aim of this work is to study different available surgical techniques for reconstruction of orofacial tumors and to address the outcome of surgery, aesthetic result and if there is recurrence after surgery.

Patients and Methods

This prospective study included all patients with different orofacial tumors, who were admitted at both Plastic and General Surgery Departments, Sohag University Hospital, Egypt in the period from Mars 2004 to October 2006.

Full history taking (particularly age of the patient, their social circumstances and tumor biology) and thorough clinical examination were done for all patients on admission, and all laboratory and radiological investigations needed were also done. Thorough clinical examinations including regional lymph nodes evaluation was performed. After full assessment of the patients including physiological age and general condition, the excision of the tumor and tumor bearing area were mapped according to the suspected pathology putting in mind the safety margin, and flap design.

The patients were divided into five groups according to the different regions of the tumor in relation to the aesthetic units of the face. Group I included patients with oral and perioral tumors, group II included patients with cheek tumors, group III included patients with tumors in the forehead region, group IV included patients with tumors in the nasal region, and group V included

patients with tumors in the periorbital region.

After an informed written consent was obtained, patients underwent surgical excision of their lesions under general or local anesthesia. Appropriate reconstructive procedure was planned for every case. Procedures ranging from simple primary closure, partial or full-thickness skin grafting, to local and distant flaps were used to cover the resultant defects.

The aesthetic result was formulated by eye-witness score using 5

different persons (doctor, paramedical staff, medical student, patient and patient's relative). The score consisted of five degrees ranging from excellent, very good, good, fair and bad.

The functional outcome depended on both objective and subjective effects of the reconstructive part on the function of the affected area.

Patients were followed up till the end of the study period to detect locoregional relapse of the tumor and to ensure that the patient was being successfully rehabilitated.

Results

Seventy five patients with different orofacial tumors were included in this prospective study over 20 months period from Mars 2004 to October 2006. The age of the patients ranged from 7 months to 83 years, 40 patients (53.33%) were females and 35 patients (46.66%) were males.

Patients were divided into five groups according to the sites of the defect in relation to the aesthetic units of the face (Figure 1). These groups were namely: oral and perioral region (group I) and included 34 cases (45.33%), cheek region (group II) and included 14 cases (18.66%), forehead region (group III) and included 12 cases (16%), nasal region (group IV) and included 12 cases (16%), and periorbital region (group V) and included 3 cases (4%).

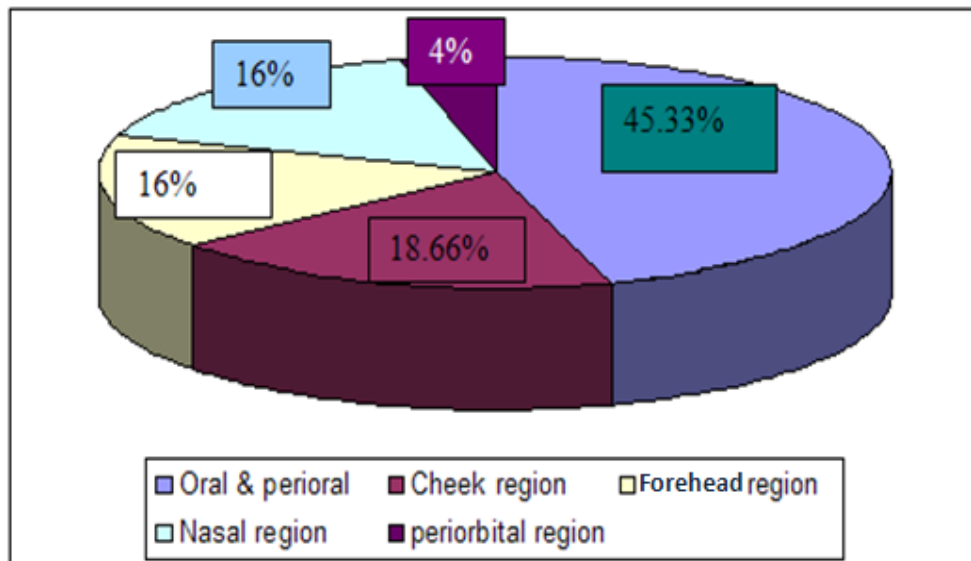


Fig. 1: Schematic presentation of incidence of orofacial tumors in different regions.

Group 1: Patients with oral and perioral tumors (34 cases):

Different surgical and reconstructive procedures were done for the patients of this group depending on the nature and extent of the lesions. Excision and primary closure was the commonest maneuver. It was done in 12 cases (16%); 3 of them were mucocele of the lower lip. Other indications were hemangioma, Schwannoma, and BCC of the upper lip on top of xeroderma pigmentosa (one case each), cavernous hemangioma and mucocele of the tongue (one case each), angiomyxoma and lipoma of the buccal submucosa (one case each), pyogenic granuloma of the gum and lower lip (one case each). Wedge excision and primary reconstruction of the lower lip was the next maneuver. It was done in 10 cases (13.3%); 4 of them were SCC measured less than one-third of the lower lip, 3 were hemangioma, 2 were sebaceous horn and one was pyogenic granuloma. Abbé flap was done in 3 cases (4%); two were SCC of the lower lip involving two-thirds of the lip and the other was BCC of the upper lip and nose where Abbé flap was used for reconstruction of the lip and mid-forehead flap was used for reconstruction of the nose. Excision and healing by secondary intention was done in another 3 patients (4%); 2 with pyogenic granuloma of the hard palate and gum (one case each) and one with SCC of the palate. Vermilionectomy and mucosal advancement was done in two patients (2.6%); one with carcinoma in situ of the lower lip and the other with diffuse hemangioma of the upper lip. Radical excision and tongue flap reconstruction was done in one case (1.3%) with minor salivary gland adenocarcinoma of the palate. In this patient right supraomohyoid selective neck dissection (levels I-III) was also done, and the patient was sent for adjuvant radiotherapy. Right hemimandibulectomy and iliac bone graft reconstruction with supraomohyoid selective neck dissection was done in another patient (1.3%) with SCC of the right gingiva. Transposition flap was done in another patient (1.3%) with pseudoepithelioma of the right angle of the mouth for reconstruction of the angle. Split thickness graft was done in another patient (1.3%) with multiple basal cell carcinomas of the face and lower lip on top of xeroderma pigmentosa. The commonest affected sites and the commonest histopathology were presented in table 1.

Group II: Patients with tumors in the cheek region (14 cases):

Different surgical and reconstructive procedures were also done for the patients of this group. The commonest surgical maneuvers were excision and primary closure and rotational flaps (equally 5 patients (6.6%) each). Excision and primary closure was done in 2 cases with SCC and 3 cases with hamartoma, intradermal nevus and BCC (one patient each). Rotational flap was done in 4 patients with BCC and one patient with intradermal nevus. Rhomboid flap was done in one patient (1.3%) with basal cell carcinoma. Cheek advancement flap was done in another patient (1.3%) with BCC ulcer at the lateral side of the nose. Left maxillectomy and deltopectoral flap reconstruction was done in one case (1.3%) with SCC of the left maxilla. In this patient, excision of the left half of the palate and the orbital floor were also done through Weber-Ferguson incision and adjuvant radiotherapy was considered. Serial excision for left cheek hemangioma (after its involution) was done in the last patient (1.3%). The commonest affected sites and the commonest histopathology were presented in table 2.

Group III: Patients with tumors in the forehead region (12 cases):

The patients of this group underwent also different surgical and reconstructive procedures. Elliptical excision and primary closure was the commonest maneuver which was done in 8 cases (10.6%); 4 of them were dermoid cysts, 2 were BCC of the forehead, one was trichilemmal cyst and one was pyogenic granuloma. Rhomboid flap was done for one case (1.3%) with SCC of the forehead. Full-thickness skin graft was done for another case (1.3%) with SCC. Double M flap was done for another case (1.3%) with BCC of the forehead. This patient had multiple BCCs of the left temple and right auricle; for them split-thickness graft and preauricular flap was done respectively. Double pedicle advancement flap was done for a compound nevus of the left brow in the last patient (1.3%). The commonest affected sites and the commonest histopathology were presented in table 3.

Group IV: Patients with tumors in the nasal region (12 cases):

The different surgical and reconstructive procedures in this group included bilobed flap in 4 cases (5.3%) with BCC of the nose. Melolabial flap was done in two cases (2.6%) with BCC of the nasal tip. Forehead flap was done in one case (1.3%) with large basal cell carcinoma of the nose. Rhomboid flap was done in another case (1.3%) with basal cell carcinoma of the nose. Glabellar flap was done for another case (1.3%) with basal cell carcinoma at the base of the nose. Full-thickness skin graft was done for another case (1.3%) with basal cell carcinoma of the nose. Excision and transposition flap was done for another case (1.3%) with adenoid cystic carcinoma of the sweat glands. Excision and primary closure was done for the last case (1.3%) with basal cell carcinoma at the side of the nose. The commonest affected sites and the commonest histopathology were presented in table 4.

Group V: Patients with tumors in the periorbital region (3 cases):

All patients of this group had BCC of the lower eyelid. Rhomboid flap was done for two cases (2.6%), and transposition flap from the upper eyelid was done for the third case (1.3%) to reconstruct the lower lid.

The commonest pathologic Finding

Skin malignancy was the commonest orofacial tumors in this study. Basal cell carcinoma was encountered in 27 patients (36%), while SCC was diagnosed in 13 (17.3%) patients (Fig. 2).

I. Aesthetic and functional outcome:

The majority of patients in this study were satisfied as regard cosmetic appearance and function of different regions of the face after surgical reconstruction. The overall aesthetic and functional outcome was excellent in 48 patients (64%). None of the patients experienced bad cosmetic or functional result. Local and regional flaps gave an excellent color and texture match, while the aesthetic results of split- or full-thickness skin grafts were usually unsatisfactory. Table 6 showed the aesthetic and functional outcome of different groups.

II. Recurrence:

No local or regional recurrence was detected in any of the patients with malignant orofacial tumors during the 20 months period of the study.

Table 1: Anatomical, histopathological & surgical data of group 1

Affected site: patients' number and %	Surgical procedures	Number and Percentage	Clinico-pathological data
Lower lip lesions (isolated & combined), (n=18), (24%)	<ul style="list-style-type: none"> • Excision and primary closure • Wedge excision and primary closure • Vermilionectomy and mucosal advancement • Excision and Abbè flap • Split thickness graft after multiple excisions. 	<ul style="list-style-type: none"> • 4 (5.3%) • 10 (13.3%) • 1 (1.3%) • 2 (2.6%) • 1 (1.3%) 	<ul style="list-style-type: none"> • Mucocele in 3, pyogenic granulomas in one • S.C.C. involved less than one 1/3 in 4, hemangioma in 3, sebaceous horn in 2, and pyogenic granuloma in one. • Carcinoma in situ • S.C.C. involved more than 2/3 in both • Multiple B. C. C. of the face & Lower lip
Upper lip lesions (isolated & combined), (n=5), (6.6%)	<ul style="list-style-type: none"> • Excision and primary closure • Excision and Abbè flap of the upper lip and forehead flap for nasal lesion • Vermilionectomy and mucosal advancement 	<ul style="list-style-type: none"> • 3 (4%) • 1 (1.3%) • 1 (1.3%) 	<ul style="list-style-type: none"> • Hemangioma in one, Schwannoma in one and B.C.C. in one. • B. C. C. of the upper lip and nose • Diffuse hemangioma
Tongue, (n=2), (2.6%)	<ul style="list-style-type: none"> • Excision and primary closure 	<ul style="list-style-type: none"> • 2 (2.6%) 	<ul style="list-style-type: none"> • Cavernous hemangioma in one & mucocele in other
Palate, (n=3), (4%)	<ul style="list-style-type: none"> • Excision and healing by secondary intention • Radial excision & Tongue flap with suprahyoid neck dissection (level I-III) 	<ul style="list-style-type: none"> • 2 (2.6%) • 1 (1.3%) 	<ul style="list-style-type: none"> • Pyogenic granuloma in both • Minor salivary gland, adenocarcinoma confirmed by histopathology
Gum (n=3), (4%)	<ul style="list-style-type: none"> • Excision and primary closure • Excision and healing by secondary intension • Right hemimandibulectomy & iliac bone graft + suprahyoid neck dissection 	<ul style="list-style-type: none"> • 1 (1.3%) • 1 (1.3%) • 1 (1.3%) 	<ul style="list-style-type: none"> • Pyogenic granuloma • Pyogenic granuloma • SCC of the right gingiva invading the bone.
Bucal mucosa (n=2), (2.6%)	<ul style="list-style-type: none"> • Excision and primary closure 	<ul style="list-style-type: none"> • 2 (2.6%) 	<ul style="list-style-type: none"> • Angiomyoxoma in one and lipoma in the other.
Angle of the mouth (n=1), (1.3%)	<ul style="list-style-type: none"> • Transposition flap 	<ul style="list-style-type: none"> • 1 (1.3%) 	<ul style="list-style-type: none"> • Pseudoepithelioma

B.C.C. = Basal Cell Carcinoma
S.C.C. = Squamous Cell Carcinoma

Table 2: Anatomical, histopathological & surgical data of cheek region (group II)

Affected site (patients' number and percentage)	Surgical procedures	Number and percentage	Clinico-pathological data
<ul style="list-style-type: none"> Left side (n=8), (10.6 %) 	<ul style="list-style-type: none"> Excision & primary closure Rotation flap Rhomboid flap Left maxillectomy & deltopectoral flap Serial excision 	<ul style="list-style-type: none"> 3 (4%) 2 (2.6%) 1 (1.3%) 1 (1.3%) 1 (1.3%) 	<ul style="list-style-type: none"> SCC in one patient, hamartoma in one, multiple intradermal nevus in one. BCC in both patients. BCC. SCC of the left maxilla. Hemangioma.
<ul style="list-style-type: none"> Right side (n=6), (8 %) 	<ul style="list-style-type: none"> Excision & primary closure Rotational flap Cheek advancement flap 	<ul style="list-style-type: none"> 2 (2.6 %) 3 (4 %) 1 (1.3 %) 	<ul style="list-style-type: none"> SCC in one patient and BCC in the other. BCC in 2 and intradermal nevus in one. BCC.

Table 3: Different anatomical, histopathological & surgical data of group III

Affected site patients' number and percentage	Surgical procedures	Number and percentage	Clinico-pathological data
<ul style="list-style-type: none"> Midline (n=8), (10.6%) 	<ul style="list-style-type: none"> Excision & primary closure 	<ul style="list-style-type: none"> 8(10.6%) 	<ul style="list-style-type: none"> Dermoid cysts in 4, BCC in 2 trichilemmal cyst in one and pyogenic granuloma in one.
<ul style="list-style-type: none"> Left side (n=3), (4%) 	<ul style="list-style-type: none"> Rhomboid flap Full thickness graft Double pedicle advancement flap 	<ul style="list-style-type: none"> 1(1.3%) 1(1.3%) 1(1.3%) 	<ul style="list-style-type: none"> SCC SCC Compound nevus of the left brow
<ul style="list-style-type: none"> Combined right and left side (n=1), (1.3%) 	<ul style="list-style-type: none"> Double M flap for forehead lesion and split-thickness graft and pre-auricular flap for the left temple and right auricle respectively 	<ul style="list-style-type: none"> 1(1.3%) 	<ul style="list-style-type: none"> Multiple BCC of the forehead, left temple and right auricle

Table 4: Anatomical, histopathological & surgical data of group IV

Affected site patients' number and percentage	Surgical procedures	Number and percentage	Clinico-pathological data
<ul style="list-style-type: none"> Ala of the nose (n=5), (6.6 %) 	<ul style="list-style-type: none"> Bilobed flap Forehead flap 	<ul style="list-style-type: none"> 4 (5.3%) 1 (1.3%) 	<ul style="list-style-type: none"> BCC BCC
<ul style="list-style-type: none"> Tip of the nose (n=4), (5.3%) 	<ul style="list-style-type: none"> Melolabial flap Rhomboid flap Full-thickness graft 	<ul style="list-style-type: none"> 2 ((2.6%) 1 (1.3%) 1 (1.3%) 	<ul style="list-style-type: none"> BCC BCC BCC
<ul style="list-style-type: none"> Dorsum (n=3), (4%) 	<ul style="list-style-type: none"> Glabellar flap Excision & primary closure Transposition flap 	<ul style="list-style-type: none"> 1 (1.3%) 1 (1.3%) 1 (1.3%) 	<ul style="list-style-type: none"> BCC BCC Sweat gland carcinoma confirmed histopathologically to be adenoid-cystic type.

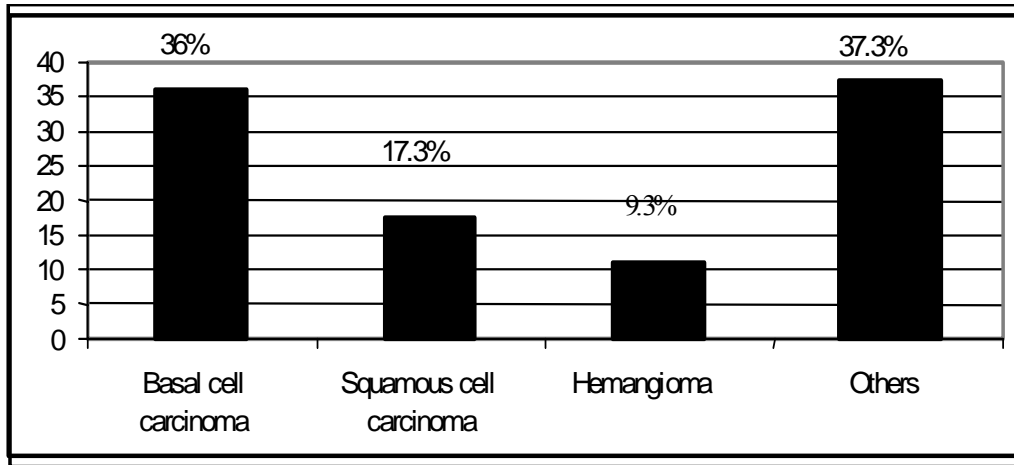


Figure 2: Incidence of each tumor type in this study

Table 6: Aesthetic and functional outcome of patients

Region	Functional & aesthetic outcome	No. & % of patients
1-Oral and perioral region (34 patients)	Excellent	25 (33.33%)
	Very good	3 (4%)
	Good	6 (8%)
2-Cheek region (14 Patients)	Excellent	6 (8%)
	Very good	2 (2.6%)
	Good	4 (5.3%)
	Fair	2 (2.6%)
3-Forehead region (12 Patients)	Excellent	9 (12%)
	Very good	1 (1.3%)
	Good	2 (2.6%)
4- Nasal region (12 Patient)	Excellent	6 (8%)
	Very good	5 (6.6%)
	Good	1 (1.3%)
5-periorbital region (3 Patients)	Excellent	2 (2.6%)
	Very good	1 (1.3%)
Total No. of patients		75 100%)

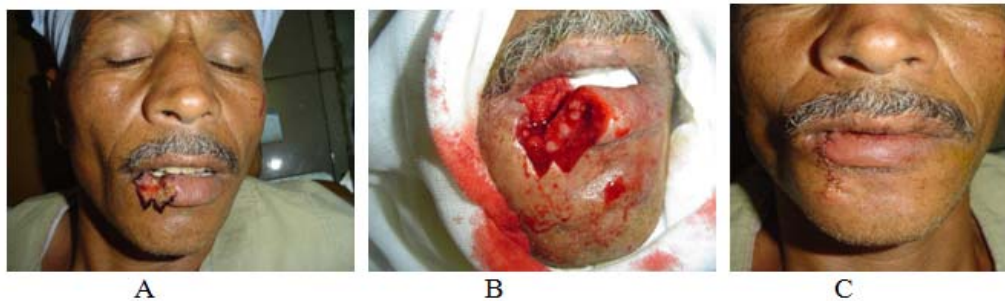
A: Group 1: Patients with oral and perioral tumors:



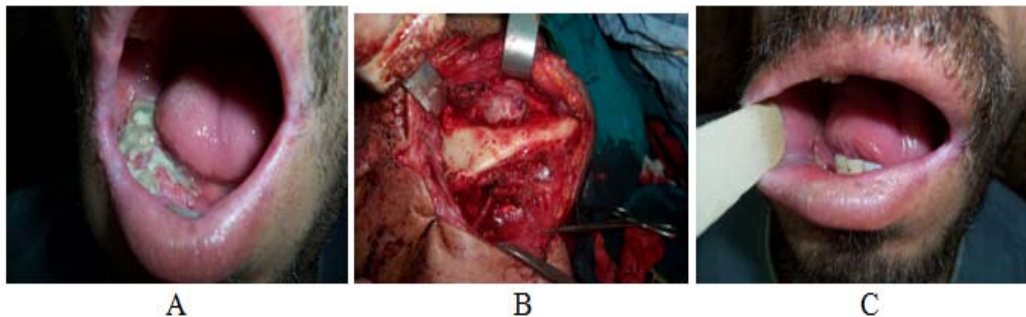
1. Photo (A) Preoperative picture (Squamous cell carcinoma of the lower lip-carcinoma in situ), (B) intraoperative picture (Vermilinectomy and mucosal advancement), (C) Postoperative picture.



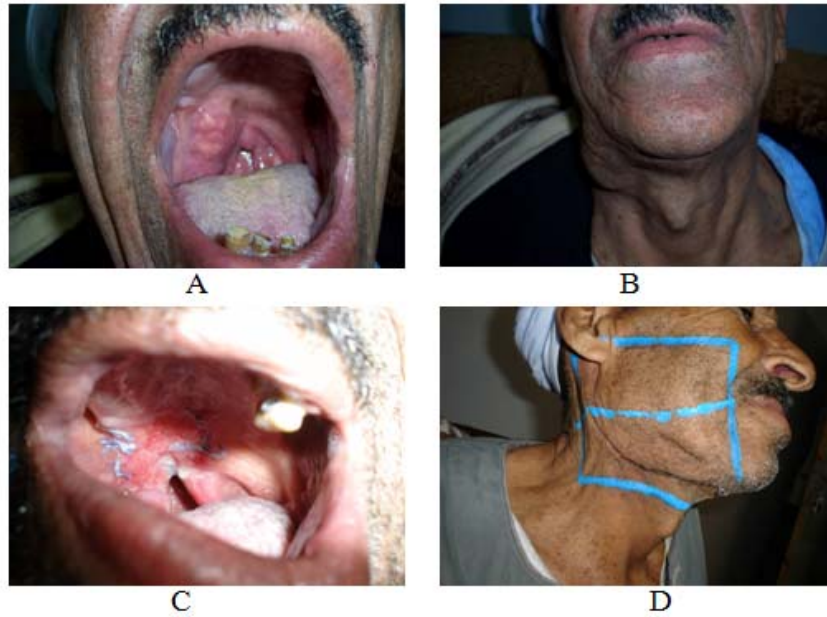
2. Photo (A) Preoperative picture (Squamous cell carcinoma of the lower lip), (B) Intraoperative picture (Abbé flap), (C) Postoperative picture.



3. Photo (A) preoperative picture (Squamous cell carcinoma of the lower lip), (B) Intraoperative picture (W excision and primary closure), (C) postoperative picture.



4. Photo (A) Preoperative picture (Squamous cell carcinoma of the right gingiva), (B) Intraoperative picture (excision of the mass & hemimandibulectomy), (C) Postoperative picture.



5. Photo (A,B) Preoperative picture (Minor salivary gland adenocarcinoma of the palate with right submandibular enlarged LN). Photo (C, D) Postoperative picture.

B-Group II: patients with tumor in cheek region:



6. Photo (A) Preoperative picture (Squamous cell carcinoma left Maxilla). Photo (B, C) Intraoperative picture (Deltopectoral flap), Photo (D) Postoperative.

C- Group III: Patients with tumors in the forehead region:



A



B

7. Photo A-preoperative picture showing two BCC of the forehead and periorbital region. Photo B-Postoperative picture showing simple closure and rhombic flap

D-Group IV: Patients with tumor in the nasal region:



A



B



C

8. Photo (A) Preoperative picture (BCC of nasal tip) (B) operative picture (Melolabial flap) (C) Post operative picture.



A



B



C

9. Photo (A) Preoperative picture (BCC of base of the nose) (B)operative picture (mid-forehead flap) (C) Post operative picture.

E-Group V: Patients with tumor in the periorbital region



A



B



C

10. Photo (A) Preoperative picture (BCC of infra-orbital region) (B) Operative picture (Cheek advancement flap) (C) Post operative picture.

Discussion

The major reconstructive goal is to reestablish functional structural support and soft tissue coverage, maintaining the most aesthetic appearance with minimal distortion. Hom et al ⁽⁷⁾, stated that the absent tissue should be repaired with like tissue that is similar in color, texture, and thickness. The reconstruction options begin with local tissue as it is an easy procedure, requires in most cases local anesthesia especially in elder patient who cannot withstand general anesthesia, supplying us with like tissue, and preserves the more complex reconstructive option for more complex defect. In our series excision and simple closure was done in 34.6% (26/75) of patients, while wedge excision and simple closure was done in 13.3% (10/75) of patients.

The ideal approach for reconstruction is also affected by many clinical factors. These factors include the shape and contour of the wound, potential for compromised healing of flap or grafts, patients at high risk for local tumor recurrence, patient ill-suited to undergo surgical reconstruction, and a wound requiring a granulation tissue for receiving grafts. In addition, a desire to decrease the initial size of large facial wounds prior to reconstruction may give an early option for second-intention healing ⁽⁸⁾.

The expected function and cosmesis resulting from second-intention healing may be superior to that expected from first intention healing ⁽⁷⁾. In our series, only 4% (3/75) of patients healed by secondary intention for small benign lesions.

However in many patients the ideal approach for reconstruction requires skipping layers on the pyramid and starting with the most

complex option ⁽⁸⁾. Split-thickness skin grafts have limited usefulness in facial reconstruction because of their tendency to contract. They typically have a different texture as well as color and thickness than the neighboring tissue ⁽⁷⁾. In our work, we limited the use of split-thickness skin graft to only one patient who had multiple rodent ulcers of the face.

Omidi et al ⁽⁹⁾, stated that full-thickness skin grafts are particularly useful for facial defects involving the nasal tip, lateral surface of the auricle, and eyelids as they don't contract and don't change in color or texture. Full-thickness skin grafts were used only in 2.6% (2/75) of our patients, for SCC of forehead and BCC of nasal tip.

Local flaps have a wide use in reconstruction of head and neck defects following excised tumors because they enable the surgeon to cover the defect with tissue that is similar in color, texture, and thickness. Rectangular advancement flaps are best designed on the forehead and occasionally useful in the temporal area to restore the hairline or in the perioral area to support the lip ⁽¹⁰⁾. Cheek advancement flap is a large flap which can be used to close central facial defects along the side of the nose ⁽¹¹⁾. The V-Y advancement flap is one of the most useful local flaps for reconstructing facial defects and can be used in almost all areas of the face. The nasolabial fold, the medial canthal area, the glabellar area, the cheek, and the sides of the nose are all good areas to design V-Y advancement flaps ⁽⁹⁾. Cheek rotation flaps can be used anywhere on the face and may be based superiorly or inferiorly. The optimal design of these flaps ensures that the resulting scars reside along the borders of facial aesthetic units ⁽¹¹⁾.

In our series, we performed local flaps in 30.6% (23/75) of our patients for various orofacial tumors.

In management of tumors of the lip is somewhat differ as the lip has its unique anatomical structure and it is important as aesthetic unite. So any defect involves the lip require especial reconstructive procedures. In lesion occupying the vermillion as chronic actinic cheilitis or carcinoma in situ vermillionectomy and mucosal advancement is the treatment of choice⁽¹²⁾ which was done in 2 cases represent 2.6% of the patients.

A full- thickness defect of the lip involve about 2.5cm or at least one third of the lip can be reconstructed by wedge excision and primary closure either M shaped flap or by V shaped flap⁽¹²⁾. They were performed in 22 patients representing 29.33% of our cases. In surgical defects more than 2.5 cm up to 4.5 cm, reconstruction was done by Abbè and Estlander flap in 3 cases representing 4%.

Electromyography studies at one year following reconstruction confirmed the ability of the transferred orbicularis muscle to be re-innervated successfully and restored function as an animated segment.

Tongue flap plays a big role in reconstruction of the oral cavity especially in palatal defect. It is easy procedure but need two stages first for application of the flap second to divide the pedicle. We used it in a case of granuloma of hard palate and gum and represented 1.3% of patients.

The forehead flap is a workhorse flap for large nasal defects. Forehead flaps can be designed as either paramedian or a midline flap. The advantage of a midline flap is that the resultant scar is located in the exact centre of the forehead and tends to be less conspicuous than a paramedian

one. The forehead flaps can be transferred as interpolated flaps or island flaps⁽¹³⁾. The nasolabial flap can be based either superiorly or inferiorly. Small defects of the nasal ala, nasal tip, and dorsum are easily reconstructed with a superiorly based flap. An inferiorly based flap is ideally suited to close defects of the lip that don't involve the vermillion⁽¹⁴⁾. We used melolabial flap in two cases

Forehead flap and glabellar flap were used in two cases with a defect in the nose.

As regard the distant flaps we usually used it as last option. We used a deltopectoral flap in a very big defect involve most of the left side of the face after left maxillectomy in case of squamous cell carcinoma of the left maxilla.

Lastly, in dealing with the most common skin tumor of the head and neck, excision was the treatment of choice for most SCCs and BCCs. A standard excision was usually done under local anesthetic, and the tumor was removed with a margin of apparently-normal skin. Selected sections from the specimen were then examined microscopically to determine if the margins are free of tumor. The choice of therapeutic modalities was the same for SCC and BCC. Selection of the most appropriate therapy was dependent on many factors, including size of the tumor, location, whether the tumor is primary or recurrent, histopathology and individual factors.

After good excision the best modalities for reconstruction were used according to every case. In our series 34.67 % BCC and 17.33 SCC, all were managed by excision.

The aesthetic and functional results were evaluated and they were excellent in 64% and very good in 16% of the cases.

Conclusion:

The reconstruction after benign lesions is almost easier and better than malignant tumors and reconstruction after BCC give better cosmetic appearance than SCC.

Still local and simple flaps in the face give the best cosmetic and functional outcome especially in dealing with benign or BCC

Classification of orofacial tumors into five groups facilitates the diagnosis and management.

So although the very high varieties of lesions in the orofacial region but also there is varieties of reconstructive tool that give the patients the best functional and cosmetic outcome even in malignancy.

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أورام الوجه والفم: المشكلة والمخرج

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أجري هذا البحث في مستشفى سوهاج الجامعي بقسمي جراحة التجميل والجراحة العامة في الفترة ما بين مارس 2004 وأكتوبر 2006. وقد شمل هذا البحث علاج خمسة وسبعين مريضاً بأورام مختلفة في الوجه والفم، وقد تم تقسيم المرضى إلى خمسة مجموعات تبعاً لمكان الورم ؛ وهذه المجموعات هي: منطقة حول الفم والفم (34 حالة)، منطقة الخد (14 حالة)، منطقة الجبهة (12 حالة)، منطقة الأنف (12 حالة)، ومنطقة حول العين (3 حالات).

وقد استخدمت طرق مختلفة لإعادة بناء هذه النواقص بعد استئصال الأورام شملت: الشرائح الموضعية، الشريحة الصدرية الكتفية، والرقع الجلدية، وقد تم تقييم النتائج من الناحية الجمالية والوظيفية بواسطة سؤال المرضى، الصور الفوتوغرافية قبل وبعد العملية والفحص الإكلينيكي، وقد كانت درجات هذا التقييم ممتازة، جيدة أو سيئة بالنسبة للحالة الأولية للمرضى.

وكانت النتائج الجمالية والوظيفية العامة ممتازة في 72 % وجيدة في 28 % من الحالات، وقد نوقشت النتائج واستخلص منها أن الشرائح الموضعية هي أفضل الطرق لإعادة بناء نواقص الوجه لأنها تعطي تماثل ممتاز من جهة اللون والتكوين، ولكن لا يمكن استخدام هذه الشرائح إلا في إعادة بناء النواقص متوسطة الحجم، و بالنسبة إلى الشرائح من أماكن بعيدة فلها دور كبير في إعادة بناء نواقص الوجه خاصة بعد استئصال الأورام الخبيثة الكبيرة، أما بالنسبة للرقعة الجلدية فقد أثبتت النتائج أنها طريقة سهلة وبسيطة وسريعة لإعادة البناء ولكن نتائجها الجمالية عادة غير مرضية.