Il Giornata Internazionale di Interscambio Universitario Italo-Boliviano

Chirurgia del distretto Oro-Maxillo-Facciale

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Clinical management of lip cancer



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Lip cancer is the most common malignant lesion of the oral cavity, constituting 25-30% of all oral cavity cancer cases.



➤UV exposure helps to explain why 90% of lip cancers occur on the lower lip.

Tumour location



Over 90% of these cancers consist of SCCs

BCCs generally occur in the upper lip (cutaneous white lip)

Rarer Types

✓ Adenocarcinoma (secondary to minor salivary

gland presence)

- ✓ Melanoma
- ✓ Lymphoma✓ Sarcoma

Clinical features

➢ Initial clinical signs of lip cancer can include crusting or asymptomatic ulceration; in advanced stages, extensive ulcerative or infiltrative lesions are usually observed.

Regional lymphnode metastases represent late occurrences of the disease (10 to 15% of cases) because of the slow overall growth rate of the tumor.



Metastatic workup is not routinely indicated because fewer than 2% of patients have distant metastasis at the time of presentation.

Staging of Lip Cancer

Stage 0 (Ca in situ)	Abnormal cells are found in the lining of the lips and oral cavity and may become cancer.
Stage I	The tumor is <2 cm and has not spread to the lymph nodes.
Stage II	The tumor is 2-4 cm and has not spread to the lymph nodes.
Stage III	The tumor may be any size and has spread to one lymph node that is ≤ 3 cm, on the same side of the neck as the tumor; or is >4 cm.
Stage IV	The tumor invades adjacent structures and has spread to one or more lymph nodes (>3 cm \rightarrow >6 cm). The tumor has spread beyond the lip to distant parts of the body (lungs).

Prognosis

Lip cancer remains one of the most curable malignancies in the head and neck. The 10 year cause specific survival can be as high as 98% and recurrence free survival is greater than 90%.

The neglected tumors may portend a worse prognosis and progressively involve the skin of the mentum, alveolar mucosa, mandible, floor of mouth, and tongue, as well as locoregional nodal and distant metastasis.

Treatment

Stage I	Surgery-Brachytherapy with or without external radiation therapy.	
Stage II	Surgery-External radiation therapy and/or internal radiation therapy.	
Stage III	 Surgery and external radiation therapy with or without internal radiation therapy. ✓ A clinical trial of chemotherapy before or after surgery. ✓ A clinical trial of chemotherapy and radiation therapy. ✓ A clinical trial of hyperfractionated radiation therapy. 	
Stage IV	 Surgery and external radiation therapy with or without internal radiation therapy. ✓ A clinical trial of chemotherapy and radiation therapy. ✓ A clinical trial of chemotherapy before or after surgery. ✓ A clinical trial of hyperfractionated radiation therapy. 	

Surgical Treatment



Functional and Aesthetic Reconstruction



Goals of Reconstruction



Algorithm of Repair

Over 300 repairs have been described!



When possible, use the axiom: «Use of lip to repair the lip defect»



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1.Vermillion defects 2.Defects less than ¼ of either lip 3.Defects wider than ¼ of either lip 4.Commissure defects 5.Total lip defects



Vermillion defects

Labial Mucosal Advancement Flap For use only in lesions of the red lip. Favored method for restoration of the vermillion.



Disadvantage Some flattening of the natural contour of the lip

Defects less than ½ of either lip



Primary Closure

- ✓ Wedge Excision (V-lip).
- ✓ W-plasty.
- ✓ Bilateral Advancement flap.



Defects wider than ¹/₃ of either lip

≻Abbe Flap (Sabattini)

✓ Based of the arterial supply of the labial artery – either superior or inferior.

✓ Ideal for lesions involving $\frac{1}{3} - \frac{2}{3}$ of the upper or lower lip but lesions must not involve the commissure.

✓ Estlander Flap ✓ Similar to Abbe Flap. ✓ ¼ - ⅔ of upper or lower lip or lateral defects.





 Disadvantage
 Patient must be cooperative -Limitation of oral movement -Requires division at a later date
 -Oral commissure distortion requiring revision

Bengt-Johanson staircase technique Defects less than ²/₃ of lower lip.

✓ Full thickness defects.



Karapandzic Flap

✓ Full thickness defects.

Disadvantages

The Bengt-Johanson staircase technique enables one-step repair of defects ranging from a half to two-thirds of lower lip volume, if the defect is not too lateralized.

✓ Defects less than ½ of upper lip (reverse technique).
✓ Defects less than ⅔ of lower lip.



✓ Best suited for rectangular defects of the central lower lip.



Disadvantages

The reconstructed <u>upper lip</u> is somewhat tight, and is not aesthetically satisfactory (reverse technique) -Microstomia (problem for denture wearers) Bernard-von Burrow Flap
 ²/₃ of upper and lower lip, midline defect.
 Adequate adjacent cheek tissue.
 Mild microstomia.





Disadvantages Little or no muscular function -Problem with oral competence

Perialar crescentic advancement flap

> The technique, used primarily for upper lip repair.

Essentially a modification of the Bernard-Burow flap



the perialar crescentic advancement flap alters the location of the scar so that it lies within the perialar and nasolabial folds, allowing for less distortion due to tension.



Disadvantages

Loss of philtrum and cupid's bow -May not be hair bearing skin in males -Color differences of cheek skin -Tightness of the upper lip exists with a smaller oral aperture

Defects wider than ½ of upper lip

May use Cross lip flaps

✓ Estlander flap.
✓ Abbe flap.
✓ Gillies flap.
✓ Melolabial flaps.







Commissure defects

Difficult to recreate

✓ Estlander
✓ Karapandzic
✓ Others (Zisser flap)





Total defects

➢Abbe, Estlander, Karapandzic ... and primary closure are most common ... but, as much as possible, use lip to repair lip.

➢ Distant flaps (Upper Lip Reconstruction → Bitemporal flaps,
 ➢ Lower lip reconstruction → Deltopectoral flap,
 Microvascular free flap, Radial forearm free flap.



Post operative details

✓ Sutures may be removed as early as 1 week postoperatively.

✓ Cross-lip pedicles may be separated at 3 weeks.

✓ Revision and secondary commissuroplasty procedures are best performed when most of the healing and postoperative edema is completed, usually after a minimum of 3 months.







Complications

Early complications

Infection, suture abscess, sialocele, and fistula formation can be minimized with appropriate care of suture lines, appropriate preoperative oral hygiene, perioperative prophylactic antibiotics, and careful surgical technique.

Late complications



Aesthetic and functional loss can arise from scar formation and wound contracture. Another potential complication is hypertrophic scar formation.

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Ν	Lesions	Reconstruction Techniques		
4	red lip	Labial Mucosal Advancement Flap.		
79	<1cm	Wedge Excision & Primary Closure (V/W-plasty), Bilateral Advancement flap.		
151	1-2cm	Abbè-Estlander flap, Bengt-Johanson staircase technique, Zisser flap.		
23	2-3cm	Abbè-Estlander flap (<i>unilateral-bilateral</i>), Bernard- von Burrow, Karapandzic, Gillies.		
12	>3cm	Bernard-von Burrow, Karapandzic, Gillies.		
19	Commissure repair	Wierneck-Dieffembach flap		

Conclusion

> The best prognostic, aesthetic and functional results are obtained in lip cancer, for the early-stage lesions and in the choice of the most appropriate surgical approach. > The ideal surgical option should always be aimed at maintaining, or altering as little as possible, the functionality and appearance of the lip. > The most important problems, in lip cancer surgery, have to be faced when repairing greater loss of tissues. In these cases, there are reconstructive problems, with unsatisfactory aesthetic and functional outcomes.



