

## Case Report

# The Correlation between the Complexity of the Reconstruction in the Labial Region and the Extent of the Postoperative Defect - Report of 3 Cases

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**ABSTRACT:** Lips are structures that play an essential role in aesthetics, nutrition and speech. Their complex anatomy-with three different layers composed of skin, mucosa, and muscles-makes surgical management of this area a therapeutic challenge. We report here 3 cases of surgical reconstruction of the upper lip after the excision of tumors of varying sizes. The resulted defect from tumor extirpation is always closely linked to the time elapsed from the appearance of the tumor to the presentation in the ambulatory of Oral and Maxillofacial Surgery.

**KEYWORDS:** lip, lip tumor, reconstruction, lip defect

## Introduction

Maxillo-facial surgical practice does often put us in situations that require the removal of a portion of tissue or even an entire region. In lip tumors situation, depending on the time of the presentation for medical examination, the resulted postexcisional defect may vary, but we must always consider the fact that tumor excision with oncological safety margins prevails, and then adapting reconstruction techniques to it [1].

The lip is, in terms of oncology, by the American Joint Committee on Cancer (AJCC) and the International Union Against Cancer (UICC), the region previous limited by the junction of vermillion and skin, including the red of the lip, that comes in contact with the opposite lip. It strictly separates, malignant pathology of the red of the lip, excluding cancers that have a starting point in the adjacent skin or the oral mucosa [2].

This study was designed to present the importance of the time the patient presents to the physician comparing to the time the pathology began. The later this occurs, the more complex reconstruction of the resulting postoperative defect is needed.

## Cases reports

Subjects for the study were recruited from among the patients attended our clinic, with tumoral pathology of various sizes. We will

present three of the cases hospitalized and surgically treated at the Department of Oral and Maxillofacial Surgery Craiova, which required various techniques of reconstruction for the postoperative defects resulted from tumors' excision captured in various stages. Patients gave a written informed consent for surgery and for participating in this study.

*Case 1:* Patient M.S., male, aged 31, was hospitalized at the Department of Oral and Maxillofacial Surgery Craiova for an upper right lip tumor. The tumor had a circumference of about 1-1.5cm. The tumor is surgically removed with oncological safety margins.

The resulted defect is a minor one and the reconstruction technique used for its closure is one with a low degree of difficulty (Fig.1).



**Fig.1. Postoperative appearance**

*Case 2:* Patient V. F., male, aged 72, was hospitalized at the Department of Oral and Maxillofacial Surgery Craiova for a lower left lip tumor. The tumor is surgically removed with oncological safety margins, using Camille-Bernard technique. (Fig.2).



**Fig.2. "W" incision**

*Case 3:* Patient A.G., female, aged 73, was hospitalized at the Department of Oral and Maxillofacial Surgery Craiova for an upper left lip tumor. The surgically excision of the tumor is performed, with oncological safety margins. The postexcisional defect is stretched, so that for covering it, we had to raise a proximity flap (Fig.3).



**Fig.3. Immediately postoperative appearance**

## Discussions

Oral and pharyngeal cancer, grouped together, are the sixth most common type of cancer worldwide. While the incidence of lip cancer is low (1-2%), this is the most frequent tumor of oral-maxillary region, comprising the 25-30 percent of all oral cancer [3].

In the head and neck area, squamous cell carcinoma of the lip is the most represented histological type (greater than 90%), while basal cell carcinoma is uncommon in this anatomical site (less than 10%). BCCs generally occur in the upper lip and do not generally develop lymph node metastases [4]. In contrast, SCCs grow most often from the lower lip, with a possibility of neck metastases. Lip carcinomas frequently appear at the top of pre-cancerous lesions, such as radiodermatitis, chronic cheilitis and xeroderma pigmentosum. The combination of long-term exposure to ultraviolet radiation from exposure to sunlight and a fair skin has been suggested as one of the etiological factors in the epidemiology of lip cancer [5].

Surgery is the therapy of choice for the majority of the tumors of the lip. The lips constitute the principal attribute of the lower face, playing a major role in facial look and function and their renovation nevertheless signifies a important challenge to the reconstructive surgeon [6].

Analyzing the cases operated in our clinic, we can observe that a reconstruction requires different techniques depending on postoperative defect's magnitude. This should be adapted from case to case, choosing the optimum solution, so the lip can resume its functions, in a more rapid and a more efficient way.

The later the patient is presenting for medical examination, the larger the size of the postoperative defect will be, so covering it, will assume a much more complex reconstruction technique [7].

As we showed in this study, a smaller size postoperative defect means an easy reconstruction for the surgeon. Our first case presented (T1 tumor) demonstrates this. We have used a "V" type tumor excision, followed by a linear suture [8].

As the postoperative defect increases in size and more structures must be reconstructed, the difficulty for re-establishing lip functions raises. The next cases shows this. On the second case (T2 tumor), we have used a "W" type tumor excision, followed by an upside-down "Y" closing. From our experience, this is the most

common process performed for lip tumors in our clinic [9].

The third case presented in this research, was a T3 stage tumor. Its surgical excision was very large, leaving one postoperative defect that needed a neighborhood, slipped flap, to be covered with [10].

In conclusion, this research demonstrates that detecting a lip tumor in an earlier stage is highly needed, because diagnosing a lesion in its beginning phase, will require a reduced surgery extension. This will result in a minor defect that can be reconstructed by a simple technique with a decreased risk of postoperative complications, and a faster and closer to normal recovery of the lip functions. This means that regular medical examinations should be done, especially to the population exposed to the risk factors we have presented in this study.

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