The importance of early detection of lip cancer risk groups

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Abstract. Oral maxillo-facial region cancer carries major importance in the tumour pathology of the organism being characterized by a high frequency as well as by the variety of the clinical anatomical and topographic forms through which it is presented. Over 60% of labial carcinoma begins as an asymptomatic ulceration, therefore patients do not pay due attention, considering it a "rebellious thrush" and they make a specialized medical appointment in an advanced stage of the tumor. In this study we pursued the frequency of the lip cancer pathology compared to the total CMF; the distribution the lip cancer by sex and age in patients who submitted to the specialized service; the originating environment of the patient with lip cancer; the anatomical location of the lip cancer; the frequency of relapses after treatment; the presence of adenopathy in the first consultation. The study was performed at the Clinic of Cranio-Maxillofacial Surgery, University of Medicine and Pharmacy "Victor Babes" Timișoara and pursued statistical aspects of the lip cancer incidence over a period of five years (2007-2012). Pre- and postoperative patients were monitored constantly, registering in individual sheets the evolution of the disease, monitoring the relapses after treatment and the presence of adenopathy in the first consultation. As shown in the statistics made in the last five years (2007-2012), from a total of 8135 cases with CMF pathology hospitalized in the Timisoara surgery clinic, 163 cases, or 2%, were cancer of the lip. Analyzing the gender distribution shows that males represent 81% of cases while the remaining 19% were found in women. From the study of age distribution, we found that the number of cases increases with age: 153 cases over 60 years old and 58 cases between 20 - 60 years. Personal statistics from the 212 cases of cancer of the lip reveal that 143 (67%) patients were from the rural areas and 69 (33%) from urban areas. Neoplastic pathology is constantly increasing both in frequency as well as in the therapeutic problems raised. In the face and oral cavity catagory, lip represents 2% of all cases and 19-25% of the total facial cancer area. Lip cancer is one of the localizations that, when detected early, can benefit from an effective therapy with high chances of healing. In order to achieve a complex treatment, interdisciplinary collaboration is required, only thus being able to determine both the therapeutic methods as well as their association.

1. Introduction
Oral and maxillo-facial region cancer carries major importance in the tumour pathology of the organism, being characterized by a high frequency as well as by the variety of the clinical anatomical and topographic forms through which it is presented.
Of the multiple localizations of head and neck cancer, labial carcinoma represents 50%, according to Gordon Castigliano, and 3% of the total cancer localizations [1].

Given the topographic location of the lips, malignant tumors appearing here have a number of particularities [5]:

- extreme polymorphism on the histological level and especially into the clinical plan, which slows their diagnosis;
- frequent occurrence of precancerous neoplasia on the lips, which gives an opportunity to be identified and treated correctly in the early stages of development;
- frequent exposure to potentially malignant causation factors (solar radiation, pollutants, etc.);
- the possibility of therapeutic approach through a multitude of treatment methods, more numerous as in the case of visceral cancer.

Today, despite the progress in therapy, it is unanimously acknowledged that the most effective weapon against cancer is to establish a diagnosis and treatment as early as possible.

Over 60% of labial carcinoma begins as an asymptomatic ulceration, therefore patients do not pay due attention, considering it a "rebellious thrush," and consequently they schedule a medical appointment in an advanced stage of the tumor [3].

2. Objectives

In this study we pursued:

- the frequency of lip cancer pathology compared to the total CMF
- the distribution lip cancer by sex and age in patients who submitted in the specialized service
- the originating environment of the patient with lip cancer
- the anatomical location of the lip cancer
- the frequency of relapses after treatment
- the presence of adenopathy in the first consultation

3. Material and method

The study was performed in the Clinic of Cranio-Maxillofacial Surgery, University of Medicine and Pharmacy "Victor Babes" Timisoara and pursued statistical aspects of lip cancer incidence over a period of five years (2007-2012). Preoperative clinical and laboratory investigations were performed (blood tests, pulmonary and cardiology specialty consults) in view of general anesthesia and radio-imaging investigations (CT, MRI) isolating the tumor boundaries and eventually the extension to neighboring organs. Surgical procedure consisted of three stages: tumor removal in clinical oncology safety limits, reconstructive plastic surgery of the defect, and subsequent cervical therapeutic conduct. The surgical treatment was followed, if needed, by radiation or chemotherapy treatment and immune treatment. Pre- and postoperative patients were monitored constantly, registering in individual sheets the evolution of the disease, monitoring the relapses after treatment and the presence of adenopathy in the first consultation.

4. Results

As shown in the statistics made in the last five years (2007-2012), from a total of 8135 cases with maxillo-facial pathology hospitalized in the Timisoara surgery clinic, 163 cases, or 2%, were cancer of the lip.

Analyzing the gender distribution shows that males represent 81% of cases, while the remaining 19% were found in women [4]. However, some English authors, referring to smoking as a major etiological factor for the lip cancer, show that in the last 50 years damage reports relative to patient gender remained relatively constant in the context in which the number of women smokers increased significantly [7].
From the study of age distribution, we found that the number of cases increases with age: 153 cases over 60 years old, 58 cases between 20 - 60 years.

These statistics correspond to international data mentioning that the incidence increases with age, so at age 75 reaches 1/1.100 compared with 1/20.000 in the general population.

The environment has some significance in cancer of the lip; the rural population is affected at a rate of 60-90% more frequently due intensive exposure to wind, solar radiation and large temperature differences.

Personal statistics from the 212 cases of cancer of the lip reveal that 143 (67%) patients from the rural areas, and 69 (33%) from urban areas.

![Figure 1.](image)

5. **Discussions**

Neoplastic pathology is constantly increasing both in frequency as well as in the therapeutic problems raised. In the face and oral cavity cancer catagory, lip represents 2% of all cases and 19-25% of the total facial cancer area.

In terms of the effect on genders, males are more affected in proportion of 81% compared to 19% in women. Explanation of this difference is found in the fact that men are more frequently exposed to carcinogenic factors.

In terms of the effect on the age groups, the highest frequency is placed in the period of old age, during which the tissue changes are influenced by the senescence crisis. This does not mean that in other age groups there are no cases of lip cancer.

The highest number of lip cancer cases is found in rural areas, 67% compared to only 33% in urban areas. The explanation for this difference is the greater frequency of carcinogenic factors in the environment where the predominant agricultural workers are exposed to both sunlight as well as prolonged thermal variations and effects of the chemicals used in agriculture.

In terms of topography, 90% of cancer affects the lower lip and only 10% the upper lip, the lower lip being exposed more directly and prolonged to harmful factors.

Lip cancer receives in order of frequency: surgical care, radiant, chemotherapy and immune therapy. After treatment, the evolution of the disease can be towards post therapeutic healing (depending on the stage in which the cancer was caught) or it can be followed by treatment of local recurrence, which we found in 6% of cases.

Lip cancer treatment is not complete unless you take into account regional adenopathy [6], which was clinically assessed by us at the first consultation in 9% of cases. In the evolution of lip cancer, impairment related to spreading of the cancer to the neighboring organs, such as the mandible, may occur. These situations require a different therapeutic strategy and reduce the chance of healing.
6. Conclusions

Lip cancer is one of the localizations that, when detected early, can benefit from an effective therapy with high chances of healing.

In order to achieve a complex treatment, interdisciplinary collaboration is required, only thus being able to determine both the therapeutic methods as well as their association.

In early detection of the lip cancer, the dentist and the family doctor plays an important role [2]. Faced with all categories of patients, they are obliged to make a full examination of the case and to guide the patient to the cranio-maxillo-facial surgical clinic from the first signs of illness.

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