

Unusual Growth of Upper Lip Squamous Cell Carcinoma: A Case Report

Slobodan Stojanovic¹; Marina Jovanovic¹; Nada Vuckovic^{2,*}

¹Department of Dermatology, Medical Faculty Novi Sad, University of Novi Sad, Novi Sad, Serbia

²Department of Pathology, Pathology and Histology Centre, Clinical Centre of Vojvodina, Medical Faculty Novi Sad, University of Novi Sad, Novi Sad, Serbia

*Corresponding Author: Nada Vuckovic, Department of Pathology, Pathology and Histology Centre, Clinical Centre of Vojvodina, Medical Faculty Novi Sad, University of Novi Sad, Novi Sad, Serbia. Tel: +381-638136214, E-mail: nadavuckovic@yahoo.com

Received: July 17, 2013; Revised: January 16, 2014; Accepted: December 21, 2014

Introduction: Squamous cell carcinoma is the most common type of lip and oral cavity cancers. In majority of cases it follows quite common course, and after the surgery it does not produce any harm. This case presents unusual and unexpected growth of upper lip squamous cell carcinoma with severe cosmetic problems, and possible health threats.

Case Presentation: A 46-year-old woman noticed on her upper lip "a spot, the size of a wheat grain", which grew rapidly and reached the size of 0.6 cm during a two-week period. The lesion was red, hard and painful, attached to the skin. It was surgically removed, and primary histopathological finding was follicular keratosis. Recurrent tumor appeared seven days after the operation, with the extreme swelling of the upper lip. The patient was sent to a tertiary hospital, where fungal or bacterial infection was excluded. The change on the patient's upper lip reached the size of 5 × 2 cm, as soft, reddish nodular tumor. Squamous cell carcinoma was diagnosed after the histopathological audit. With the second surgical intervention the tumor was removed and the defect reconstructed.

Conclusions: Prognosis of this type of tumor, apart from its size and differentiation level, depends on infiltration in tumor-surrounding tissue, perineural and perivascular spread. Therefore, it is always necessary to analyze the removed skin especially on margins.

Keywords: Squamous Cell Carcinoma; Skin; Prognosis; Pathology

1. Introduction

Squamous cell carcinoma (SCC) is the most common type of lip and oral cavity cancers. It comprises nearly 30% of all oral cavity cancers (1). According to medical literature, lower lip SCC is more common in men and upper lip SCC is more common in women, aged over 50, with upper lip and, more commonly, lower lip exterior skin and mucosa as the predominantly affected area (2). Exposure to UV-radiation is a major risk factor, apart from smoking, in the etiopathogenesis of SCC (3). According to a comprehensive study from Israel, SCC is a dominant type of lip cancer, mostly among men aged over 53 and exposed to UV-radiation (3). In a retrospective-prospective study, epidemiological data showed that in almost half (45%) of the oral cavity SCC cases among the population in Montenegro, both lower and upper lip were affected (4).

2. Case Presentation

At the end of January in this year, a 46-year-old woman noticed for the first time a change on the skin of her upper lip resembling "a spot, the size of a wheat grain", which grew rapidly and during the period of two weeks attained a size of 0.6 cm. The change was red, hard and painful to touch, attached to the skin. It was surgically removed. Primary histopathological finding was follicular keratosis. Recurrent tumor appeared in surgical incision area only seven days after the operation, as well as the on-

set of extreme swelling of the upper lip tumorous tissue (size < 2 cm). The patient was sent to a tertiary hospital. After the hospital admission, the fungal or bacterial infection of the lesion was excluded. Soft, reddish nodular tumor with the size of 5 × 2 cm with sebaceous cysts and telangiectasias was clinically observed (Figures 1 and 2). Swollen lymph nodes (< 13 mm diameter) were detected on both sides of the neck and in the right axillary fossa there was one swollen lymph node around 10 mm in size. All biochemical and serological blood tests were within normal reference ranges. Well differentiated, keratinized, squamous cell carcinoma of the upper lip was diagnosed after the histopathological audit. Tumorous tissue infiltrated all papillary and reticular dermis, muscle fibers and perineural spaces and is visible on the lower resection line (Figures 3 and 4). With the second surgical intervention the upper lip skin cancer was removed and the defect reconstructed. Final postoperative result was shown in the Figure 5. In the time of the second surgical intervention, lymph nodes on both sides of the neck could not be identified either on palpation or by ultrasound examination. Earlier detected lymph node, with almost normal ultrasound characteristics, could not be seen or palpated, thus there was no need for a lymph node biopsy. Postoperative findings of lymph nodes showed only transient reactive lymphadenopathy. Further oncological treatment was not advised for the patient, only subsequent medical check-ups of the operated area.

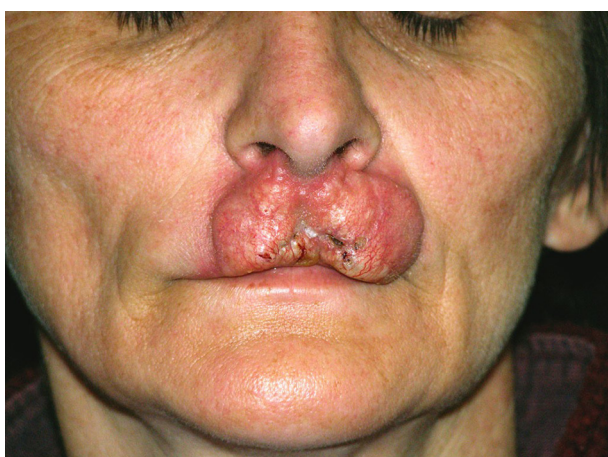


Figure 1. Upper Lip Tumor at Hospital Admission (Front View)



Figure 2. Upper Lip Tumor at Hospital Admission (Lateral View)

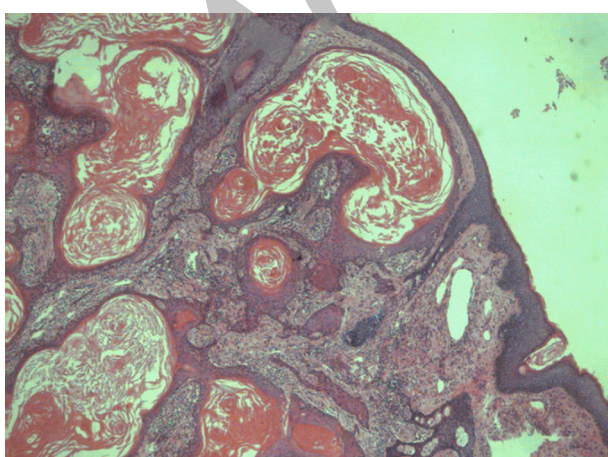


Figure 3. Microphotograph-Skin Squamous Cell Carcinoma With Keratinization-Dermal Infiltration (HE \times 50)

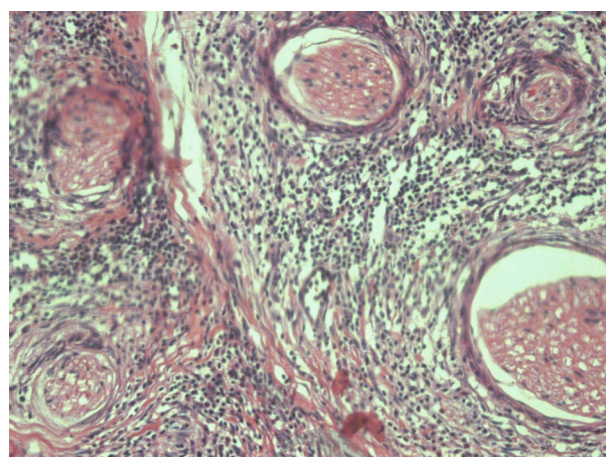


Figure 4. Tumor Surrounding 5 Nerves in the Visual Field-Perineural Infiltration (HE \times 200)

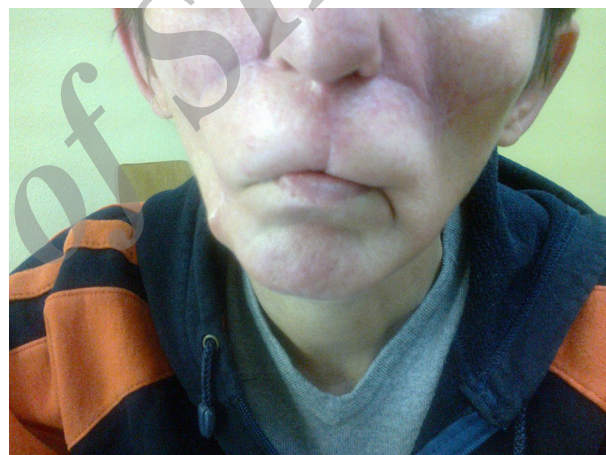


Figure 5. Postoperative Status of the Patient

3. Discussion

Risk factors for SCC are: exposure to UVA and UVB radiation, treatment with methoxalen and UVA radiation, exposure to ionizing radiation, genodermatoses, oculocutaneous albinism, xeroderma pigmentosum, Human Papillomavirus (HPV) infection especially with types 6, 11, 16 and 18, chemical carcinogens (arsenic, polycyclic aromatic hydrocarbons), immunosuppression and use of immunosuppressors, organ transplantation, leukemias and lymphomas, skin diseases with chronically damaged skin, etc. (5). Human immunodeficiency virus is also associated with increased risk of SCC (6). Other risk factors are: ulcerations, osteomyelitis, radiation dermatitis, dystrophic epidermolysis bullosa, smoking, burns, chronic fistulas, etc. Precancerous changes in the skin and the mucosae such as: actinic keratoses, arsenic keratoses, keratoses caused by exposure to ionizing radiation, Bowen's disease and erythroplasia of Queyrat, are all obvious risk factors for SCC (5). We could not find any correlation

between the above mentioned risk factors and our patient. She is a nonsmoker and she has not suffered from repeated herpes infections or other diseases. According to the literature, localization of cancer on the upper lip is more common in women than in men, as it is presented in our case, while the lower lip cancer, especially SCC, is more common among men, ranging from 6 - 10 to 1 (3, 7). Global comparative studies show significant regional differences in the frequency of lip SCC. High incidence rates have been found in men in North America, Europe and Oceania, while the frequency of SCC is rare in Asia (8). Epidemiological studies performed over the past 40 years have detected several regions with a decline of the lower lip cancer incidence rates among men as well as a stable and slightly increasing lip cancer incidence rate among women, which is associated with a reduced ratio of men from 6:10 to 2-3: 1. The number of upper lip cancer cases globally increased up to 40% of all oral cancers. However, over 90% of all lower lip cancer cases are SCC cases (9). Although in this case the histopathological findings indicated the possibility of perineural spread of tumor, complete surgical removal of the cancerous tumor and the margin of healthy tissue, is followed by the absence of metastatic changes for the time being. This case confirms the assumption that the histologic and nuclear grades of tumor are not prognostic factors for recurrences and regional metastases of lip SCC (10). Tumor size is a prognostic factor for recurrence and regional metastasis of lip SCC. It is a factor that allows the distribution of oral cancer patients in groups with a higher or lower risk of recurrence and/or metastatic disease. According to the literature, the risk for regional metastases increases 2.8 times with increasing of lip SCC size over 2 cm in diameter (4). The authors present the case of a patient with squamous cell carcinoma of the upper lip pointing out the importance of early detection

and complete surgical removal of such tumors concerning the fact that this case suggests a higher prognostic significance of the size of the upper lip cancer, as well as the infiltration in tumor-surrounding tissue, mainly the perineural and perivascular spread, than the degree of its histological differentiation for the development of metastatic changes in cancer patients.

References

1. Burusapat C, Pitiseree A. Advanced squamous cell carcinoma involving both upper and lower lips and oral commissure with simultaneous reconstruction by local flap: a case report. *J Med Case Rep.* 2012;**6**:23.
2. Geraud C, Koenen W, Neumayr L, Doobe G, Schmieder A, Weiss C, et al. Lip cancer: retrospective analysis of 181 cases. *J Dtsch Dermatol Ges.* 2012;**10**(2):121-7.
3. Czerninski R, Zini A, Sgan-Cohen HD. Lip cancer: incidence, trends, histology and survival: 1970-2006. *Br J Dermatol.* 2010;**162**(5):1103-9.
4. Golubovic M, Asanin B, Jelovac D, Petrovic M, Antunovic M. [Correlation between disease progression and histopathologic criterions of the lip squamous cell carcinoma]. *Vojnosanit Pregl.* 2010;**67**(1):19-24.
5. Cassarino DS, Derienzo DP, Barr RJ. Cutaneous squamous cell carcinoma: a comprehensive clinicopathologic classification. Part one. *J Cutan Pathol.* 2006;**33**(3):191-206.
6. Nguyen P, Vin-Christian K, Ming ME, Berger T. Aggressive squamous cell carcinomas in persons infected with the human immunodeficiency virus. *Arch Dermatol.* 2002;**138**(6):758-63.
7. Blomberg M, Nielsen A, Munk C, Kjaer SK. Trends in head and neck cancer incidence in Denmark, 1978-2007: focus on human papillomavirus associated sites. *Int J Cancer.* 2011;**129**(3):733-41.
8. Moore S, Johnson N, Pierce A, Wilson D. The epidemiology of lip cancer: a review of global incidence and aetiology. *Oral Dis.* 1999;**5**(3):185-95.
9. Silapunt S, Peterson SR, Goldberg LH, Friedman PM, Alam M. Basal cell carcinoma on the vermilion lip: a study of 18 cases. *J Am Acad Dermatol.* 2004;**50**(3):384-7.
10. Nason RW, Castillo NB, Sako K, Shedd DP. Cervical node metastases in early squamous cell carcinoma of the floor of the mouth: predictive value of multiple histopathologic parameters. *World J Surg.* 1990;**14**(5):606-9.