Research Paper Medical Science

Squamous Cell Carcinoma of the Tongue in A Young Breast-Feeding Woman (A Case Report)

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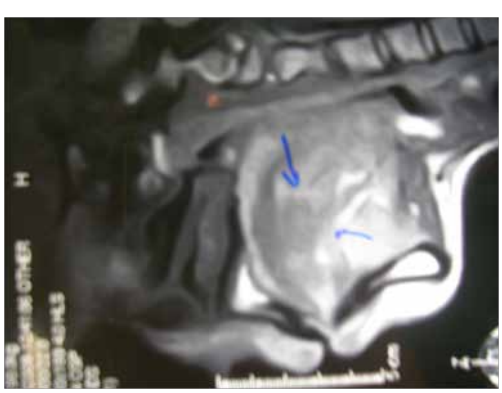
ABSTRACT

Cancer of the tongue is rare in younger age population. This case report was presented a 26 year old woman who gave birth to an healthy boy 8 month ago and still breastfeeding with tongue cancer (TC). The patient underwent right hemiglossectomy and bilateral functional neck dissection followed by a postoperative locoregional radiation theraphy to the neck. The patient is still on clinical follow up at 4th postoperative month without recurrence. Although there are a few case reports in the literature for TC in young woman, our report; to the best of our knowledge, is the first case report of TC in a young breast-feeding woman.

KEYWORDS tongue neoplasm, squamous cell carcinoma, young woman, breast-feeding, tumor

Case Report:

A 26-year-old woman was admitted to our hospital's ear nose throat (ENT) clinic for an ulcer on her tongue that exists for 10 months. The lesion was occurred at the last trimester of her pregnancy and was diagnosed stomatitis due to vitamin deficiency. Nonsmoker young woman who gave birth to an healthy boy 8 month ago and still breastfeeding. Clinical examination showed a vegetative ulcer of the right lateral aspect of the tongue measuring 2x3 cm. It was in the 2/3 frontolateral part on the tongue and was not exceeded the midline, painless and its borders had irregular pattern. There were a lot of palpable neck lymph nodes bilaterally. The biopsy which was taken from the lesion was evaluated as squamous cell carcinoma (SCC). Magnetic resonance imaging (MRI) of the neck was showed irregulary mass, approximately at 16x9 mm dimension in the right frontolateral of the tongue periphery takes attention. The lesion captures the full thickness of the rigt tongue muscle groups. The sublingual space is clear. The genioglossus and geniohyoid muscle groups are intact. In T1 weighted series the lesions are given hypointense and in T2 weighted series lesions are given hyperintense signals. The lesions were given heterogenous dull contrast invasion after intravenous contrast (Figure 1, 2).



Treatment:

After nasal entubation under general anesthesia,right hemiglossectomy and bilateral functional neck dissection was done. The operation was ended af ter perioperative tracheostomy. She was given parenter al nutrition postoperative 2 days and oral feeding start ed postoperative 3rd day. She was decannulated postoperative 5th day and discharged postoperative 7th day. The histopathological diagnosis of her specimen was revealed well differentiated SCC (Figure 3). Pathology revealed an irregular ulcerated lesion on the lateral surface of the tongue measuring 2,5 cm in maximal dimension compatible with SCC infiltrating the tongue musculature with negative surgical margins. No metastatic lymph node was detected in the neck. The disease was staged T3NOMO. Postoperative loco-regional radiotherapy was delivered after surgery. The patient is still on clinical follow up at 6th postoperative month without recurrence (Figure 4).

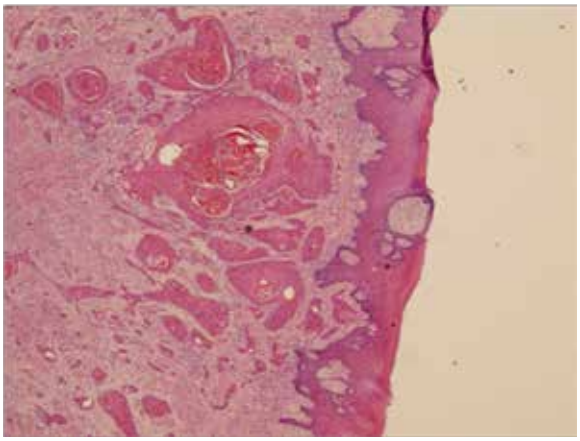


Figure 3: The histopathological diagnosis of her specimen was revealed squamous cell carcinoma

Differential Diagnosis:

Oro-pharyngeal carcinoma (OPC) is a major oncological problem in many regions of the world and ranks as the 3rd most common cancer after the stomach and servix in developing countries.[1] OPC is predominantly a disease of middle aged men who use tobacco and alcohol. Nearly 95% of carcinomas occur after the age of 45, with an average of approximately 60 years. In recent years, oral cavity cancers have increased in younger age, especially in female who never consumed alcohol or tobacco.[2] This increase does not seem to be associated with the usual risk factors. Some have suggested that factors such as smokeless tobacco, marijuana and human papillomavirus (HPV) may be playing roles in this increase seen in younger patients. Women who are in their reproductive years and increasing frequency of the women conceiving in their fourth and fifth decades of life presents a new problematic group of patients for treatment managements.[3]

The tongue is the most common site for OPC in patients under 40, which is observed similar in older patients.[4] Although there are a few case reports in the literature for TC in young woman, our report; to the best of our knowledge, is the first case report of TC in a young breast-feeding woman.

Discussion:

SCC represents about 90-95% of all malignant neoplasms of the oral cavity. It is located mainly in the tongue, especially in the lateral border.[5] The lesion in our patient's tongue was SCC in the 2/3 frontolateral part on the tongue and was not exceeded the midline. TC is a disease that is prevalent worlwide and over the past 20 years, a growing incidence of this disease has been detected among younger age groups. In western countries, the onset of TC for patients younger than 40 years old accounts for approximately 3-6% of all TC patients, whereas in endemic areas of betel quid chewing, the incidence of young age TC was reported to be between 16% and 28% of all TC patients.6 Incidence in the younger patient group is increasing. Young people are probably less exposed to carcinogens that led to a malignant transformation.[7] Female patients are also over-presented in this group. Some authors theorize that the physiologic changes of pregnancy can promote neoplastic growth secondary to the high metabolic state and hormonal responses in women.[3] Besides hormon changes, immunological supression and increased vascularization during pregnancy might also imply adverse effects on tumor development.[8] The lesion was occurred in pregnancy, the time when the hormonal status was changed. A higher percentage of women than in the general population in young patients who lack a common risk factor has been reported. HPV positive head and neck cancer in young patients had a favourable response to radiotherapy and chemotherapy and better overall survival.[9] Oral mucosa, especially oropharyngeal mucosa, is similar histologically to cervical mucosa. The presence of HPV in oral mucosa suggests that, as in cervical cancer, HPV infection may also play a similar role in the transformation of oral epithelium. The transformation to cancer in the setting of HPV infection is distinct when risk factors, such as smoking and or drinking, are not present. HPV infection is a predominant risk factor in the development of oropharyngeal SCC.[10] The HPV screening which was done by us to the patient found negative. Some studies concluded that younger patients have a better prognosis. Some studies stated that the diesease in young patients is more aggressive, however, other studies did not show a significant difference between the two age groups.[9] Siriwardena et al from Sri Lnka showed that 39% of recurrences in younger patients compared to the older group which had 30%. The three-year survival rate of this study was more or less equal in both younger and older groups comprising 91% and 87.5% respectively. The three-year survival rate of women in the younger group is better (90%) than the older group (75%).1 In one case report of tongue carcinoma in an young adult Down's syndrome patient, it is emphasised that the low risk of carcinomas in DS patients could be due to particular enviromental exposure patterns, length of life of patients with DS, or possibly directly related to an inherent genetic effect in the presence of limited exposure to occupational carcinogens, alcohol, and tobacco. The pathology results was reported the margins as negative and the physicians considered the margins as free of tumor and no new resection could be suggested at this time. Normally, T2N0 oral cavity tumors resected with negative margins do not require postoperative radiotherapy but their patient had three adverse clinicopathological features as young age, haematogenic invasion, well differentiated SCC. But they lost their patient early recurrence nine months later after his initial diagnosis.11 There is a relationship between patients and family history of cancer. Onset of cancer of early age is an indicator of hereditary cancer and also found the higher familial risks for the same site of cancer in first degree relative if the index cancer was diagnosed in younger age.[12]

In literature, the youngest case report was an 13 years-old boy which presented by Seyedmajidi ve Faizabadi from Iran. In the absencence of known risk factors and presence of facial hyperpigmentation, the authors screened the patient for immunolologic and genetic analyses for xeroderma pigmentosum, keratitis-ichthyosis-deafness syndrome, Fanconi anemia and found negative results.[5] A case presentation similar to ours was an 22 year old woman in her third trimester with advanced tongue cancer, T4N3MO SCC, who refused surgery, and undervent chemotheraphy (paclitaxel and carboplatin) and lost due to early recurrence.[3]

Although TC is rare in younger age population, in the presence of risk factors like; marijuana, smokeless tobacco, alcohol, feeding habits, occupational exposure to carcinogenetic elements, HPV, genetic predisposition, immunodeficiency, insufficient oral hygiene and low socioeconomic status; SCC should be remembered. But it should be kept in mind that presence of these risk factors are not necessary. Future genetic and clinical studies will facilitate the determination of early risk factors and early detection possibilities. The multidisciplinary approach of the specialists of head and neck surgery, medical and radiation oncology has of critical importance in follow up and treatment of these patients.

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