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EPIDEMIOLOGY AND PATHOLOGICAL TRENDS IN ORAL SQUAMOUS CELL CARCINOMA IN GOMEL REGION

Introduction

Squamous cell carcinoma (SCC) is the most common malignant neoplasm of the oral cavity and represents about 90% of all oral malignancies [1]. Oral squamous cell carcinoma (OSCC) is an important cause of morbidity and mortality worldwide with an incidence rate that varies widely by geographic location [1]. Recent publications have highlighted variations in oral cancer trends by geographical location, anatomic site, race, age and sex [1]. Thus, descriptive oral cancer data for each specific geographic area are important for many reasons, including understanding the extent of the problem, determining which groups within the population are at highest and lowest risk, and relating the burden of oral cancer to that of other cancers to evaluate the allocation of resources for research, prevention, treatment and support services. The most important risk factors for oral SCC are use of tobacco or betel quid and the regular drinking of alcoholic beverages. However, infection with high-risk human papillomavirus (HPV) genotypes, and a diet low in fresh fruits and vegetables have also recently been implicated in the etiopathogenesis of oral SCC [2]. The highest incidence and prevalence of oral SCC is found in the Indian subcontinent where the risk of developing oral SCC is increased by the very prevalent habits of chewing tobacco, betel quid and areca-nut [2]. The mutagenic effects of tobacco, alcohol, betel quid or areca-nut are dependent upon dose, upon frequency and upon duration of use, and are accelerated and exaggerated by the concurrent use of two or more of these agents [2]. However, as not all persons who practice these high-risk habits will develop oral SCC, and as oral SCC may be idiopathic, there must be person-specific genetic characteristics and environmental factors which may either afford protection against the development of oral SCC, or may predispose to or even promote the development of oral SCC.[2] In this study we studied about the any trends in the number of cases or incidence rates at specific anatomic sites or within specific age or sex groups.

Goal

This study aims to study about the epidemiology and clinical parameters including age, sex, hospital stay, histology form, stages, subsites, primary second malignancy, time between first tumor and second, number of primary second malignancy related with smoking, treatment of surgical care or conservative of the oral carcinoma.

Material and methods of research

Retrospective analysis of the all the case histories was made in the oncology department of Gomel regional oncology dispancer, Belarus. Permission for research was granted by the Gomel state medical university. Medical case histories of 70 patients aged between 30–90 years were used for this study.

The gathered data was from the month of January to December of 2015. Statistical processing of the results was carried out using the Microsoft Office Excel 2021 program.

The results of the research and their discussion

We studied 70 case histories of the patients who had oral carcinoma. Of which 85.7% (n=60) were males and 14.3% (n=10) were females. And the patients age was divided into 3 groups, 30–50 years old were 17.1% (n=12), 50–80 years old were 77.1% (n=54), and 80–90 years old were 5.7% (n=4). And 98.5% (n=69) percentage of patients had squamous cell carcinoma with 45.7% (n=32) keratinizing and 14.2% (n=10) non-keratinizing and only 1.4% of patients had adenocarcinoma. The most common primary first tumor site is tongue 38.6% (n=27) followed by floor of the mouth 24.3% (n=17), retromolar space 5.7% (n=4), soft palate 5.7% (n=4), hard palate 4.3% (n=3), gums of the lower jaw 5.7% (n=4) and other 15.7% (n=11) respectively as shown in the figure 1. Other uncommon sites such as skin of the face, lung or bronchi, thyroid gland, oral vestibule, and buccal mucosa. About the sub sites neck 40.4% (n=23) will be the most common sub site for the primary first tumor, followed by oropharynx 19.3% (n=11), jaw 19.3% (n=11), larynx 5.3% (n=3) and other 15.8% (n=9). Other sites such as skin, soft and hard palate, retromolar region, tonsil, and tongue.

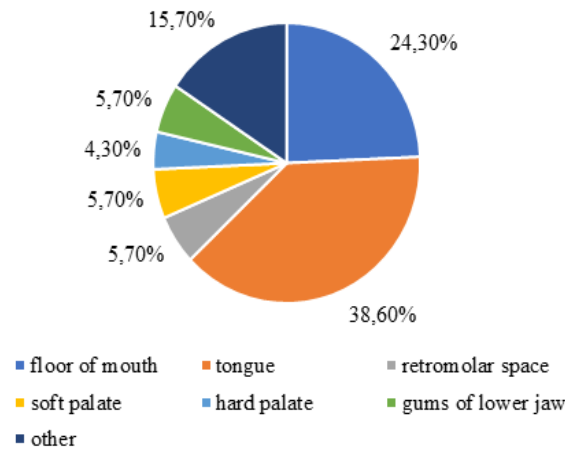


Figure 1 – Primary first tumor location

Of which mostly 40% are in fourth stage of tumor, 21.4% were in the second stage, 21.4% in the third stage and 17.1% were in the first stage of tumor as shown in the figure 2. And there were totally 18 (25.7%) patients with local relapses.

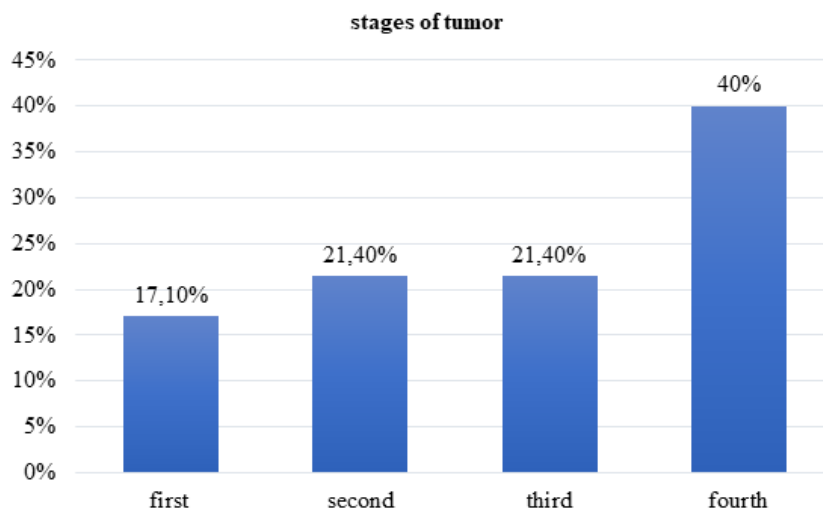


Figure 2 – Stages of the primary first tumor

Tongue 27.7% (n=5) and regional neck metastasis 27.7% (n=5) were the most common location for the local relapses, followed by soft palate 16.7% (n=3), floor of mouth 11.1% (n=2), gums of the lower jaw 5.55% (n=1) and others 11.1% (n=2) respectively. Other locations such as pharynx, skin of face. Time between first tumor and local relapses development was 3 years in average, 1 year in minimum and 8 years in maximum. And we can see that 19.3% patients local relapses are associated with smoking. All the patients were underwent combined mode of treatment such as medicinal and radiation, only 37.1% (n=26) patients were underwent surgical treatment for their primary first tumor.

And mostly patients were identified in their fourth stage of tumor. This may due to the negligence of the disease by the patients. And again, tongue and neck were the most common location for the local relapses too. So, it is very important that the clinician should very carefully examine high-risk patients (over the age of 50, light-skinned people exposed to the sun) and high-risk oral sites (lateral sides of the tongue). When detecting suspicious lesions, healthcare providers should note that non-epithelial malignancies may be involved and should use the appropriate detection methods. Treatment is oriented according to clinical and pathological stage and consists of wide surgical excision, radiotherapy, or a combination of the two. Traditionally, chemoradiotherapy is only used in cases of disease recurrence or in the presence of metastasis. Our study has some limitations such as small sample size and it is only one hospital based. Because of the magnitude of the oral cancer problem and the trends reported, serious thought should be given to plans for prevention and early detection of premalignant and malignant oral diseases, ethnicity and age cannot be altered; however, lifestyle behavior such as use of tobacco, smoking and alcohol are amenable to change and increased intake of fruits and vegetables must be addressed. The dental profession has a well-deserved reputation for preventing other oral diseases. Now is time to focus on the prevention and early detection of oral cancer.

Conclusion

In this study we can see that the males are mostly affected by the oral carcinoma. And the median age was between 50–80 years old. Squamous cell carcinoma was the most common morphological type. Tongue and was the most common site for the primary first tumor and also for the local relapses. Neck was the most common site for the local metastasis. 40% of patients were diagnosed at their fourth stage of malignancy, this may due to the lack of awareness and progressive type of the disease.

LITERATURE

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