



EPIDEMIOLOGICAL ASSESSMENT OF THE INCIDENCE AND MORTALITY OF ORAL CANCER

Khazratov A.I.

PhD, Associate Professor

Head of the Department of Oral Surgery and Dental Implantology
the Samarkand State Medical University

Rizaev J.A.

Doctor of Medical Sciences, Professor of the Department of Public
Health of the Samarkand State Medical University

Ganiev A.A.

MD, Associate Professor of the Department of Maxillofacial Surgery
Tashkent State Dental Institute

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ABSTRACT

In most cases, oral diseases can be prevented, but they remain a serious health problem in different countries, causing harm to people of all ages. These diseases cause pain, discomfort, deformities and sometimes lead to fatal outcomes. It is estimated that oral diseases affect about 3.5 billion people worldwide. According to the 2019 Global Burden of Disease study, the most common problem is untreated caries of permanent teeth. Treatment of oral diseases is expensive and is often not included in basic health insurance in most countries.

Introduction. Low- and middle-income countries do not have enough resources for large-scale prevention and treatment of oral diseases. The main risk factors for these diseases coincide with those of many other non-communicable diseases: sugar, tobacco and alcohol consumption, as well as poor hygiene. These factors are often driven by social and commercial conditions.

Most oral diseases can be prevented and treated at an early stage. The most common are caries, periodontal diseases, tooth loss and oral cancer. Other significant diseases include congenital cleft lip and palate, noma (a severe disease affecting children) and dental injuries. According to the WHO report for 2022, almost 3.5 billion people suffer from oral diseases, with most of them living in middle-income countries. It is estimated that about 2 billion people have caries of permanent teeth, and 514 million children have caries of baby teeth.

The growth of urbanization and changing living conditions contribute to an increase in the prevalence of oral diseases. This is due to insufficient fluoride intake, increased sugar intake and limited opportunities for primary dental care. The market for products high in sugar, tobacco and alcohol continues to grow, which increases the spread of oral diseases.

Dental caries develops due to plaque, which converts free sugars into acids that destroy teeth. Excessive sugar intake, lack of fluoride and poor hygiene contribute to the development of caries, causing pain and infections. Periodontal disease affects the supporting tissues of the teeth, its symptoms include bleeding gums, pain and bad breath. In severe cases, loosening



and loss of teeth is possible. Almost 19% of the world's adult population suffers from a severe form of periodontal disease.

Most often, tooth loss is the result of advanced caries and severe periodontal disease, although other causes may contribute to this. It is estimated that 7% of people over the age of 20 have lost all their teeth, and among people over the age of 60, this proportion is 23%. Tooth loss causes psychological, social and functional problems. RPR includes tumors of the lip, other parts of the mouth and pharynx, and ranks 13th among the most common cancers. In 2020, there were 377,713 new cases and 177,757 deaths from lip and oral cancer. Most often, these diseases develop in men and the elderly, who have a high risk of greater mortality.

The role of public health and informing the public about ways to maintain dental health is of critical importance in the prevention of oral diseases. Primary prevention measures include adequate intake of fluoride, which can be provided through drinking water, toothpastes and professional applications. In addition, it is recommended to reduce the consumption of free sugars, especially in foods and beverages that easily stick to the teeth and remain in the oral cavity for a long time. Raising awareness of the importance of regular and proper oral hygiene, including brushing teeth twice a day with fluoridated toothpaste and flossing, is also an important part of prevention.

Oral health education programs and campaigns can play an important role in preventing diseases. The inclusion of oral health information in school curricula and the active participation of teachers and parents can contribute to the formation of good habits from an early age. An important element is the availability of dental services, including preventive examinations and early treatment. This requires support for health systems and improved funding for dental services, which will allow more people to receive the necessary care.

In addition, attention should be paid to combating the social and commercial determinants of health. This includes the introduction of stricter controls on the advertising and sale of products containing high levels of sugar, tobacco products and alcohol. Such measures may include tax initiatives, regulation of advertising, especially aimed at children, and initiatives to limit the availability of these products.

Joint efforts at the level of individuals, public health and public policy can significantly reduce the burden of oral diseases. Interventions aimed at improving hygiene practices, increasing access to dental care, and combating social determinants can lead to significant improvements in oral health worldwide.

To achieve sustainable results in improving oral health, it is critically important to implement an interdisciplinary approach. Doctors of various specialties, especially dentists, pediatricians, nutritionists and even school health workers should cooperate to achieve the common goal of improving oral health among various population groups. The integration of dental consultations and preventive measures into general medical programs will make it possible to more effectively identify and eliminate problems at an early stage.

Technological innovations can also have a significant impact on the prevention of oral diseases. The use of telemedicine for remote consultations and diagnostics, the development of mobile applications to track hygiene habits and access information about proper cleaning



and oral hygiene techniques can make preventive measures more accessible and personalized. This, in turn, will reduce inequalities in access to dental care.

It is also necessary to take into account the cultural and social characteristics of different population groups when developing preventive programs. For example, some cultures may have specific food or hygiene practices that affect oral health. Taking into account these practices and adapting recommendations to cultural norms and values will increase the effectiveness of preventive measures and the degree of their acceptance among the population.

In conclusion, the integration of public health, technological innovation and cultural contexts will create a comprehensive platform for the prevention of oral diseases. This will require cross-sectoral cooperation and continuous monitoring of successes and challenges. Only through joint efforts can significant and sustained improvements in oral health be achieved globally.

Materials and methods of research:

The study of the incidence of RPR in the Republic of Uzbekistan and its regions for the period from 2011 to 2020 was carried out according to the data received on request from the State Statistics Committee of the Republic of Uzbekistan. As is known, statistical data on the oncological service are collected in the form of 7-SSV, followed by the calculation of morbidity and mortality rates, as well as morphological verification, the stages of the ZN process, one-year and five-year survival.

In 2020, the number of cases of ZN in the Republic of Uzbekistan amounted to 21,976, of which 552 with RPR; i.e., the proportion of morbidity among all ZN is 2.51%; of these, men – 353 (63.9%); women – 199(38.1%), (the ratio of men to women is 1.77:1), this indicates that males predominate among the sick, this is also characteristic of the mortality rate from RPR.

During the studied period 2011-2020, the number of cases of RPR amounted to 5,015 patients; of them, men – 3,135 (62.5%), women – 1,880 (37.5%).

It should be noted that the standardization of morbidity indicators determines the growth trend, while the peak of the indicator was in 2018, where it amounted to 2.94, followed by a decrease to 2.75 (in 2019) and 2.69 (in 2020). Until 2018, the indicators were on average at 2.10 with minor increases and decreases.

The results of the study: Apparently, this is due to insufficient satisfactory accounting of patients with oral diseases (many are not registered in specialized oncological clinics and are treated for a long time in a dental clinic) and poor quality of patient registration. Only after significant emphasis in terms of improving the quality of oncological care for patients with heart disease and the adoption of a number of resolutions by the Government of the Republic of Uzbekistan to improve and improve the quality of care in 2017-2021. these indicators have significantly changed and began to increase, which became evidence of more reliable results in the detection and diagnosis of oncopathology of RPR in general.

Age structure analysis, the number of patients with RPR was greatest at the average age of 45-64 years, which was 49.1%; then – 65 years and older – 33.3%; 18-44 – 16.4%; under 15 years, as well as at the age of 15-17 years - 0.6%

The average age of patients with RPR during the study period was 54.2 ± 0.20 (CI 52.4÷54.7) years, the calculation of the growth rate showed that a positive trend was determined –



Tpr = 2.4%, and according to the forecast for 2030 it will be 1.9 years, while maintaining the existing dynamic trend of patients who died from RPR.

When dividing patients with RPR by gender and age, men aged 45-64 years prevailed, which was 45.4%; women - 47.7%; then descending 65 years and older – 34.5 and 37.4%; 18-44 years – 16.2% and 18.6%; 15-17 years – 0.9% and 0.2%; under 15 years of age – 0.8% and 0.3 %, respectively

Conclusions: Thus, based on the results obtained, it can be seen that in oropharyngeal cancer, an imbalance of the cellular and humoral links of the immune system is observed. The imbalance in the cellular link of immunity was expressed in the suppression of the immunoregulatory index due to a decrease in the number of T-helpers/inducers and an increase in T-cytotoxic lymphocytes. Circulating immune complexes of large and small quantities were increased, and the greatest increase in the CEC of small quantities was observed, which is apparently associated with both EBV infection and the presence of an active proliferative process in the body.

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