

Abstract

Prevalence of cancer in people with complete edentulousness in Ardabil: A study based on Persian Cohort

Introduction: Dental health has an important effect on the quality of life, health status and longevity of people. On the other hand, toothlessness is a common finding among people, especially the elderly in the world. And the most common causes of tooth loss include caries and periodontal disease, which may lead to complete tooth loss in patients. Cancers have multifactorial causes, and tooth loss and periodontal disease can play a role in increasing the risk of various types of cancer. Considering the importance of the topic of this study, it looked at the prevalence of cancer in people with complete edentulism participating in the Ardabil cohort study.

Materials and methods: This were a cross-sectional, analytical descriptive study in which 12,740 edentulous and edentulous people of Ardabil city between the ages of 35 and 70 who participated in the Persian cohort were interviewed. Information including age, sex, education level, marital status and cancer types were recorded. Also, oral and dental examinations included information about the oral health status and dental status, the presence, location and number of natural teeth and checking the presence of prostheses. The data were entered into STSTA and spss version 25 software for analysis. Statistical regression test was used to analyze the data. A significance level of less than 0.05 was considered ($P < 0.05$).

Result: In edentulous people, the highest frequency is in the age group of 60 to 64 years (77.8), (68.0%) illiterate, 0.46% unmarried, 86.86% married. A total of 84 people (0.66%) of the studied population were diagnosed with cancer, and the distribution of this group was equal between the two groups with and without teeth, and there was a significant difference between these two groups in terms of cancer distribution. Having an oral lesion in edentulous people almost doubled the chance of cancer ($p = 0.009$, $OR = 2.15$). But other health behaviors such as brushing teeth, using mouthwash, using dental floss, etc. did not show a significant relationship with cancer in the study group. Women are 4.37 times more than men, people over 65 years old are 5.46 times more than people under 40 years old, illiterate people are 3.47 times more than literate people, overweight people are 1.74 times more chances of getting cancer than people with normal weight in the study group.

Conclusion: oral lesions, low education level, and old age are related to the prevalence of cancer. However, the results obtained from our study rejected cancer in edentulous people. Based on the findings and information obtained, it is important for those patients who suffer from toothlessness to be referred to a dentist for a comprehensive oral examination. Those patients diagnosed with periodontal disease due to edentulism should receive appropriate periodontal treatment and continue to maintain good oral hygiene. More studies are needed to focus on the link between oral health and cancer. This helps in the prevention, diagnosis and possible treatment of various cancers.

Key words: cancer, edentulism, Persian cohort