

Abstract

Thesis topic: Prevalence of Cardiovascular Diseases in Edentulous People in Ardabil, Iran: A PERSIAN Cohort

Introduction and Aims: Cardiovascular diseases (CVD) can be associated with dental diseases such as tooth decay or periodontal diseases that lead to tooth loss. This study was conducted with the aim of investigating the prevalence of CVD in edentulous people in order to identify the adverse effects of edentulism on CVD.

Methods: This cross-sectional analytical study was a part of a Persian cohort in Ardabil province, which was conducted on a large population of people between 35 and 70 years old during the years 2019 and 2018. In general, 12740 people including 4064 edentulous people and 8676 with teeth people were included in this study. Demographic characteristics and information related to oral and dental health status, number of natural teeth, use of denture, use of dental floss and mouthwash, as well as cardiovascular diseases were collected during examinations and compiled in a researcher-made checklist.

Results: The chance of developing CVD in edentulous people was 3.47 times higher than in the control group ($P < 0.005$; 2.6-4.63: 95% confidence interval; OR: 3.47). Other oral health factors, including oral lesions ($P = 0.12$; 0.92-1.92: 95% confidence interval; OR: 1.33), use of dental floss ($P = 0.28$; 0.7-1.11: 95% confidence interval; OR: 0.88), use of artificial teeth ($P = 0.95$; 0.75-1.34: 95% confidence interval; OR: 1.008) and mouthwash use (0.79) ($P = 0.61$ -1.87: 95% confidence interval; OR: 1.07), had no effect on the chance of CVD. The chance of CVD was significantly higher in toothless people, elderly people, people with low education level, as well as obese and overweight people ($P < 0.005$).

Conclusion: It seems that independent of intervening factors, tooth loss predicts cardiovascular events. Older age, lower education level and obesity increase the chance of CVD.

Keywords: Cardiovascular Diseases, Edentulism, PERSIAN Cohort