Salivary profile and periodontal condition in patients with heart disease under warfarin treatment

Wedad Farhan Jabber[1]*, Rehab Faisal Ahmed[1]

1. Department of Oral Diagnosis, College of Dentistry, University of Anbar, Iraq.

Abstract

Heart disease is the leading cause of death in many countries. It refers to many conditions can be categorized into: electrical, circulatory and structural disorders. Warfarin drug is widely used anticoagulant medication for treatment of thrombosis and embolism. Patients on warfarin treatment are susceptible to bleeding and cannot perform oral hygiene practice properly therefore, periodontal diseases are commonly seen in those patients.

The study was carried out on 42 individuals (22 with heart disease taking warfarin drug as case group and 20 healthy individuals as control group). Non- stimulated whole saliva samples were obtained by expectoration. Salivary flow rate was measured as ml/min, salivary C- reactive protein and albumin levels were measured by using auto- analyzer. Periodontal status was assessed by measurement of clinical attachment loss for both groups.

The mean salivary flow rate was significantly lower in case group compared to healthy controls (P= 0.02). The mean salivary C reactive protein and albumin levels were significantly higher in the case group than the control group (p= 0.003). Clinical attachment loss was significantly higher in case group than controls (p< 0.001).

Salivary flow rate decrease in patients with heart disease. Salivary C- reactive protein and albumin levels in addition to clinical attachment loss were increase in patients with heart disease using warfarin drug, so good oral hygiene instructions are necessary.

Clinical article (J Int Dent Med Res 2018; 11(2): pp. 449-453)

Keywords: Saliva, heart disease.

Received date: 06 February 2018   **Accept date:** 26 March 2018

Introduction

The term heart disease refers to several kinds of heart conditions. Coronary artery disease is the most common one, which results in heart attack. The other types of heart diseases include the valves in the heart, or the heart cannot pump well which leads to heart failure. Some individuals are born with heart disease.[1]

The symptoms differ according to the type of the disease, but heart attack or chest discomfort is the first sign for many patients. Many tests like chest X-rays, coronary angiograms, electrocardiograms in addition to exercise stress tests can be used for the diagnosis.[1]

Warfarin (WAR) is the most common oral anticoagulant medication used in treatment of various conditions like atrial fibrillation (AF), myocardial infarction, pulmonary embolism and postoperative treatment of prosthetic valve surgery.[2] The therapeutic range is narrow (INR from 2to3) and it is a subject for interactions with other medications and foods that may increase or decrease its anticoagulation effect.[3] In the liver, the cytochrome (CYP) P450 is responsible for the metabolism of warfarin for inactivation of hydroxylated metabolites.[4]

Bleeding is one of the most common side effects of warfarin.[5] Regarding the oral cavity, patients treated with warfarin suffer from bleeding from the gingiva on teeth brushing and this make them avoid brushing their teeth. For this rezone the prevalence of periodontal disease increases in many Warfarin users.[6]

Corresponding author:
Wedad Farhan Jabber
Department of Oral Diagnosis
College of Dentistry, University of Anbar, Iraq
E-mail: widad.jabber@yahoo.com