

ELEVATED SALIVARY HUMAN-DEFENSIN2 LEVELS ASSOCIATED WITH ORAL CANDIDA ALBICANS COLONIES OF TYPE 2 DIABETES MELLITUS PATIENTS

Abstract

Background: Diabetes mellitus type 2 (DMT2) is a disease with increasing prevalence worldwide every year, it can occur in different ages as well as gender. People with DMT2 are susceptible to infections including oral yeast infections, due to high glucose levels in the blood so that implications for protein levels include human defensin 2 (HBD2) in saliva as an early defense system against commensal microorganisms including *C. albicans* becoming pathogenic under this conditions. **Objective:** To prove the increasing of salivary HBD2 level in controlled and uncontrolled DMT2 patients, and to analyze their correlation with the number of colonies of *C. albicans* species in the oral cavity controlled and uncontrolled DMT2 patients. **Methods:** This study was done by taking saliva of patient DMT2 by spitting method to calculate HBD2 level then tested ELISA. To find out the number of *C. Albicans* colonies, a swab method was performed on the patient's mucosa to be identified under a microscope and developed using 3 methods: DIRECT, Carbohydrate fermentation test and urea hydrolysis test. **Results:** ELISA test results showed that HBD2 levels increased significantly in the saliva of controlled and uncontrolled DMT2 patients compare control (non DM) group, whereas the number of *C.albicans* colonies did not differ significantly between the three groups. **Conclusion:** HBD2 levels in saliva of patients with DMT2 increased compared with non-DM samples, and the number of *C.albicans* colonies found over 100 CFU indicated a fungal infection in the oral cavity but the number did not differ significantly in the three sample groups.

Key Words : Diabetes, defensins, Candida