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**STUDY OF TOTAL GLUCOSE AND CHOLESTEROL IN THE SERUM  
COLLECTED FROM PATIENTS WITH MODERATE TO SEVERE ADULT  
PERIODONTITIS**

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Coronary heart disease remains a major cause of death in most parts of western countries. It has been well established that smoking, high serum cholesterol concentration, hypertension and diabetes are significant risk factors for the development of coronary heart diseases.

Evidence is now emerging that oral health, in particular periodontal disease may also be a significant risk factor for the development of conditions such as coronary heart diseases, diabetes mellitus and low birth weight babies.

Periodontal diseases are generally chronic in nature and cause periodontal tissue destruction due to host immune and inflammatory responses towards various toxic products released from pathogenic subgingival plaque bacteria, accompanied by the destruction caused by the toxic products themselves. Considering the massive production of tissue toxins and exaggerated host immune and inflammatory responses its reasonable to suggest periodontal disease as a potential risk factor for certain systemic disease conditions. This may suggest the possible therapeutic value in oral health management, particularly periodontitis, in prevention and management of cardiovascular diseases and diabetes mellitus.

This study is a preliminary attempt to compare total serum cholesterol and serum glucose levels of subjects with apparently healthy periodontium (H), moderate adult periodontitis (MAP) and severe adult periodontitis (SAP).

30 subjects were studied. They were clinically diagnosed as healthy group (n=11, M=6 & F=5), MAP group (n=12, M=3 & F=9) and SAP group (n=17, M=6 & F=11). The age distribution of healthy group was 2 subjects in 25-29yrs group, 4 subjects in 35-39yrs group, 2 subjects in 40-44yrs group and one subject each in 30-34, 45-49 and 50-54yrs groups. The age distribution of MAP was 2 subjects in 25-29yrs group, 3 subjects in 30-34yrs group, 2 subjects in 35-39yrs group, 4 subjects in 40-44yrs group and 1 subject in 45-49yrs group. In SAP group there were 1 subject in 30-34yrs group, 5 subjects in 35-39yrs group, 3 subjects in 40-44yrs group, 5 subjects in 45-49yrs group, 2 subjects in 50-54yrs group and 1 subject in 65-69yrs group.

According to the preliminary results, the mean glucose concentrations of healthy, MAP and SAP were 98.54, 97.39 and 115.94mg/dl respectively. The results between MAP and SAP were statistically significant ( $p=0.003$ ). The mean cholesterol concentrations were 173.69, 206.43 and 212.87mg/dl in healthy, MAP and SAP respectively. The values between Healthy and MAP were not statistically significant ( $p=0.127$ ). Statistical significance was observed between healthy and SAP ( $p=0.023$ ) and SAP and MAP ( $p=0.007$ ).