

Evaluation of periodontal disease and C-Reactive protein as predictive risk factors for cardiovascular disease development

A Thesis

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Abstract

There is increasing evidence point out that periodontitis may be a risk factor for cardiovascular disease (CVD). Periodontitis may be linked to CVD as either a predisposing factor or as a sign of CVD .

C-reactive protein (CRP), a sensitive systemic marker of inflammation, has been shown to predict cardiovascular events among middle-aged and Elderly patients . Elevated levels of CRP have been observed in middle-aged patients with chronic dental infections, especially periodontitis.

The purpose of this study is to determine and compare the significance of serological differences in the serum concentrations of CRP in patient with CVD and severe periodontitis.

A total of 50 subjects suffering from CVD who attended Ibn Al-Nafees for cardiovascular teaching hospital and Bagdad medical city teaching hospital . They were divided into two groups, non periodontal (NP = 9) and generalized aggressive periodontitis (SP = 41),

The clinical data was collected and recorded in special case sheet and also the laboratory investigation including the value of CRP for those patients were also recorded .In the present study, hs-CRP ELISA kit for quantitative evaluation of the level of CRP was used.

The CRP levels were compared with demographical and clinical data including age, gender, pocket depth, attachment loss, gingival index and plaque index.

After adjusting for potential different variables, there were highly significant relationship between pocket depth , gingival index , attachment loss , plaque index and the level of CRP($p < 0.001$) .

Pocket depth is significantly related to elevated levels of CRP. This study may provide a possible link between CRP and periodontal disease, but a causal relationship cannot be inferred. Also we suggest to refer the patients who suffers from generalized periodontitis to the physician for checkup for CVD .