"EVALUATION OF BLOOD PARAMETERS RELATED TO ANAEMIA OF CHRONIC DISEASE IN SUBJECTS WITH CHRONIC PERIODONTITIS – HEMATOLOGICAL STUDY"

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to the



NITTE UNIVERSITY

SDMCDSLRC T-01097

(Estd under Section 3. UGC Act 1956)

Placed under category 'A' by MHRD., Govt of India; Accredited as 'A' Grade University by NAAC)

In part fulfillment of the requirements for the award of

MASTER OF DENTAL SURGERY (PERIODONTICS)

DEPARTMENT OF PERIODONTICS

A. B. SHETTY MEMORIAL INSTITUTE OF DENTAL SCIENCES

DERALAKATTE, MANGALORE - 575018.

KARNATAKA – INDIA

October 2015

ABSTRACT

Background: Anaemia of chronic disease is defined as anaemia occurring in chronic infections and inflammatory conditions in the presence of sufficient iron stores and vitamins. Periodontitis is a chronic infectious condition of the investing, supporting tissues of the teeth caused by sub gingival microbial colonization in susceptible hosts. This study determines the correlation between chronic periodontitis and anaemia of chronic disease.

Methods- A total of 90 systemically healthy subjects, of both sexes were included in the study. Of these, 45 subjects were healthy controls and 45 subjects were of chronic periodontitis. Red blood cell parameters, serum iron, serum ferritin, WBC count, Differential count, peripheral smear examination and C reactive protein levels were assessed from peripheral blood samples.

Results- Data analysis shows that patients with chronic periodontitis had low mean values of haemoglobin, haematocrit, number of erythrocytes, and high WBC count, lymphocytes, C reactive protein levels compared to healthy controls. High serum ferritin levels were observed compared to healthy controls and both test group and control group showed normal serum iron. 84.4% of subjects in test group showed normocytic normochromic anaemia as morphology of red cells. Even though mean differences existed between test and control group but, correlation was not observed in red cell parameters of test group to Russell score.

Conclusion - To conclude present study, like any other chronic inflammatory diseases, chronic periodontitis can be considered in developing ACD, as chronic periodontitis induces changes in haemogram in presence of proinflammatory cytokines.

Key words - Anaemia of chronic disease, chronic periodontitis, Serum iron, Serum ferritin.