

**Marie,M and Shone, M.**

*'Clinical,histological and histochemical studies of gingival in iron deficiency anaemia'*

*Tanta Medical J.,3,6.1991*

## **CLINICAL, HISTOLOGICAL AND HISTOCHEMICAL STUDIES OF GINGIVA IN IRON DEFICIENCY ANAEMIA**

The present study was carried out to demonstrate the possible gingival changes that may occur in iron deficiency anemia and to evaluate these changes clinically, histologically and histochemically.

Two groups of subjects were selected:

-20 patients with iron deficiency anemia.

-10 healthy control subjects

All subjects are examined clinically for:

Plaque index, gingival index and pocket depth

Gingival biopsies were taken from all subjects and were manipulated to be examined histologically and histochemically,clinical results showed no significant difference in the plaque index and pocket depth between the study group and the controls while significant increase in gingival index was observed in anaemic patient ,histological results revealed decreased in the thickness of the epithelium and lack of keratinisation,histochemical results showed decreased reaction of the nucleic acids (DNA,RNA) in the gingival tissue ,decreased activity of the succinic dehydrogenase enzyme while increased activity of the acid phosphatase enzyme was noticed.

From the results we can conclude the following:

Patients with iron deficiency anaemia are liable to gingivitis because of decreased epithelial thickness(atrophy)and lack of keratinization that act as weak points facing the bacterial endotoxins in addition to the impaired cell-mediated immunity in those patients.

The epithelial atrophy of the gingiva is mainly due to certain mechanisms in which there is inhibition of protein synthesis and in cell mitosis due to decreased reaction of the nucleic acids(DNA ,RNA), also there is an impairment of cellular respiration which is due decreased activity of the succinic dehydrogenase enzyme being one of the iron containing enzymes.