
STUDY OF SOME PHAGOCYTOTIC ASPECTS OF THE POLYMORPHIC CLEAR LEUCOCYTES IN IRON DEFICIENT CHILDREN

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This study about phagocytosis in iron deficient children, was done upon two groups of children :1st group :“9” children with clear cut iron deficiency anemia, other vitamin and nutrient deficiency were eluded through laboratory and clinical parameters.2nd group :5 healthy children used as control group. Experimental work of their study comprised two clinical laboratory methods for assessment of phagocytosis, namely :(1) N.B.T. dye reduction test :is a test for assessment of intercellular killing by P.M.N, statistical analysis of results in both disease and control groups show marked decrease in N.B.T dye reduction by granulocytes of diseased group verses control group.(2) Neutrophil microbicidal assay using candida albicans.Results were correlated with N.B.T. dye reduction test, where statistical analysis show significant decrease in power of neutrophils for engulfing and killing of candida albicans in diseased group verses control group.We can conclude that there is an intimate relation between iron depletion from tissues (as indicated by low Hb concentration). And a defect in the natural immunity of the host, mainly phagocytic power of the neutrophilic granulocytes. This defect is manifested as a reduction in both N.B.T. test and phagocytosis of candida albicans by PMNs over a brief period of time.