

## **SOME CAUSES OF FOLATE DEFICIENCY AMONG ANAEMIC PATIENTS ATTENDING THE HAEMATOLOGY CLINIC, KANDY**

A. ABEYSEKERA, R. SIVAKANESAN, P.A.J. PERERA AND N. EKANAYAKE\*

*Department of Biochemistry, Faculty of Medicine, University of Peradeniya*

*\*Department of Haematology, Teaching Hospital, Kandy*

Folic acid is a B group vitamin found in a variety of foods. Its principal function in the body is the transfer of single-carbon atoms in reactions essential to the metabolism of several amino acids and to nucleic acid synthesis and hence, in cell division. Thereby, its deficiency is clinically expressed in tissues with high rates of cell turnover.

Deficiency of folic acid is known to cause serious health problems such as birth defects, low birth weight, pre-term delivery, still birth, spontaneous abortion, pre-eclampsia, placental abruption macrocytic anaemia, thrombocytopaenia, leucopaenia, coronary heart disease, secondary malabsorption, an increased susceptibility to infection, a decrease in blood coagulation, stroke, sub acute combined degeneration of the spinal cord and peripheral nerves, dementia and depression. The cells are more vulnerable to viral, carcinogen, and mutagen insertion associating it with cancer.

While most foods are rich in folate, as much as 50-90% can be destroyed by improper processing and storage of foods. This leads to an inadequate dietary intake. Deficiency also occurs in decreased intestinal absorption (eg: chronic diarrhoeas), increased requirements (eg: pregnancy, malignancy, chronic illness, etc.), alcoholism, deficiency of enzymes, increased excretion (eg: in renal dialysis) and as an effect of drugs (eg: cytotoxic and antiepileptic drugs).

200 anaemic patients attending the Haematology clinic, Teaching Hospital, Kandy were studied, out of which 148 (74%) were folate deficient. The probable causes of folate deficiency among the 148 deficient patients were analysed. The analysis was done using the patient's history, clinical examination and laboratory investigations. A questionnaire was used.

The common causes seen were malignancies, poor dietary practices, myelodysplasia, pregnancy, chronic disorders, thalassaemia, haemolytic anaemias, and multiple myeloma and anti epileptic drugs.