

Introduction And Aim of the work

**Introduction:*

The term Protein Energy Malnutrition (PEM) comprises a group of clinical conditions that result from varying degrees of protein lack and or energy inadequacy and it is a common paediatric health problem in developing countries - although the clinical features of PEM are well known its pathophysiology is still unclear (Tatli et al., 2000) .

Kwashiorkor and marasmus are two forms of protein energy malnutrition that are wide spread among children in many under-developed countries and poverty stricken populations . Kwashiorkor is caused by a severe protein deficiency and is characterized by hypoalbuminemia & edema usually when breast fed infants are weaned to an inadequate diet. Marasmus is the result of long term deficiency of protein carbohydrate and many other nutrients . Both conditions may impair mental and physical growth (Delvin et al., 1998) .

Protein Energy Malnutrition continues to be a health problem causing morbidity and mortality in the first year of life (Kumar,et al., 1993).

PEM render the liver particularly susceptible to injury . Extreme fatty infiltration of the liver is found in most children with Kwashiorkor and hepatocellular failure is a common mode of death in adults (Houssaini et al., 1999) .

Triglycerides accumulation in liver may occur when there is inhibition of protein synthesis - Albumin synthesis is considerably reduced and many amino acids are handled abnormally due to deficiencies of enzymes necessary for their metabolism (Hassanein et al., 1999).

These findings may suggest that many biochemical abnormalities may occur in any form of PEM and could be related to the severity of the disease.

***Aim of the work:**

To study the significance of changes - of some biochemical parameters in PEM as total protein - alkaline phosphatase - albumin - triglycerides - cholesterol - blood glucose and haemoglobin in different stages of PEM and find its correlation with clinical features and prognosis of the disease.