INTRODUCTION
A cornerstone of the present century lies in the enormous advances made by workers in the field of immunology. Although the immunological profile of a host of pediatric diseases has been studied so far, the immunologic study of 'Protein-Calorie Malnutrition' holds a special significance owing to its devastating effects on the growth and development of the child.

Nutrition is an essential part of the mosaic of factors that determines the natural history and biological gradient of the disease, especially in the developing world. In no other area this statement is more dramatically illustrated than in the interaction of malnutrition and immunity.

In India, children below 14 years of age constitute 42.5% while those below 5 years constitute 17% of the total population. Pre-school children not only form the bulk of child population but this period of childhood, especially the second year of life, is notoriously fraught with risk. The young child is "transitional" as regards diet, immunity to infections and psychological dependence. It is at this stage of rapid growth, exploration and interaction with the environment that a child is prone to encounter accidents, develop malnutrition and infections and suffer from behavior problems.
Protein-calorie malnutrition (PCM) is the
commonest child health and social problem affecting vast
areas of the world. Obviously the condition is more
prevalent and endemic in developing and under developed
countries. PCM covers the whole range of mild to severe,
classifiable and unclassifiable manifestations of mal-
nutrition, including the two main clinical syndromes of
kwashiorkor and nutritional marasmus. One important
consequence of PCM is the retardation of child's growth
and development. Mortality in children, especially among
pre-school children, is closely related to nutritional
status.

Nutrition, immunity and infection are known
to be closely linked. Inadequate nutrition can alter
the immune competence and thus increase susceptibility to
infection. Infection, in turn, can adversely affect
nutritional status.

Children with PCM are known to be unusually
susceptible to infections, which are often more severe
and slower to resolve, than is the case with those
having normal nutrition. This has been attributed
mainly to their altered immune competence. PCM causes
depression of several host defense mechanisms including
phagocytic and killing functions of leukocytes, cell
mediated immune response, inflammatory response and
antibody production.
The role of the complement in host defence mechanisms is well established. It is one of the principal mediators of the immune response and is capable of causing lysis of cells, bacteria and viruses. The complement system comprises a series of the proteins which require sequential activation for the biological action. Genetic deficiencies of the complement proteins are known to be associated with recurrent infections.

Recent reports have suggested that PCM adversely affects complement system, which may account in part for the increased susceptibility of malnourished children to infections.

It is in the light of these observations that the present venture though a humble one is directed at studying immunological profile of malnourished children. The study aims at the following:

1- To evaluate the complement system in pre-school children having protein-calorie malnutrition, so as to assess their immunological status in relation to the severity of malnutrition.

2- To ascertain possible inter-relationship, if any, between the clinical progress of case and subsequent change in complement activity.