INTRODUCTION AND AIM OF WORK

Newborn infants are known to be particularly susceptible to infections. The preterm neonates are even more susceptible than the fullterm ones. This is attributed to defects in their defense mechanisms. (Sacchi et al 1982).

It is apparent that interactions between inflammatory response, and T- and B-cell systems play a major role in body defense mechanism. The inflammatory response has cellular and humoral components. The cellular component includes polymorphnuclear leukocytes; these are classified according to their granules staining as neutrophils, eosinophils, and basophils. Their main role in host tissue protection is phagocytosis and killing of the invading microbes; this function is best described for the neutrophils. (Segal and Soothill 1983).

Neutrophil function of term and preterm neonates has been found to be impaired when compared to those of normal adults. This was considered as a cause of their increased susceptibility to infections. (Sacchi et al 1982).

Impairment of neutrophil function might be attributed to various aspects. These could be evaluated and measured by different tests. Our work aimed to study the neutrophil function of term and preterm neonates through two of these

aspects; the phagocytic uptake by neutrophils and the lysozyme activity of their granules were tested. Our work also aimed to evaluate the same function in different age groups during the first year of life and in normal adults.