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Measles is an exanthematous disease of childhood and early adolescence caused by rubeola virus, a member of paramyxovirus group. Infection is via the respiratory tract by droplet transmission from the respiratory discharge of an infected person. It is often a self-limited severe disease of short duration and low fatality frequently complicated by middle ear infection and or bronchopneumonia. Encephalitis occurs in approximately one of every 2,000 reported cases. Survivors often have permanent brain damage and mental retardation with varying degrees of disability (Barkin, 1975).

It is estimated that 1 in every 15 people with measles suffers at least one complication, the most frequently reported being respiratory tract involvement (38 per 1,000 actual measles cases), otitis media (25 per 1,000) and neurologic disturbances (4 per 1,000) (Miller, 1964).

Measles illness during pregnancy increase fetal risk. Most commonly this involves premature labour and moderately increased rate of spontaneous abortion and of low birth weight infants (Siegel, and Fuerst, 1966).

Results of one retrospective study in an isolated population suggest that measles infection during the first trimester of pregnancy was associated with an increased rate of congenital malformation (Jespersen et al., 1977).

Reports from developing countries have stressed the high mortality due to measles and the important role of dehydration and malnutrition in contributing to death rate (Morley et al., 1967). Certainly the findings of Robson and Jones, 1971 documenting high mortality in individuals whose height and weight were below established norms underlines the role of nutritional and health status.

The results of one retrospective study showed that the respiratory or neurologic complications or both were noted as the primary cause of death in 87.2% of the deaths due to measles. 60% of deaths were attributed to respiratory causes and 20.9% were attributed to neurologic complications. 94.5% of the deaths due to neurologic complications were caused by encephalitis. In younger children and those over 15 years of age death was most frequently due to respiratory involvement. Encephalitis and

other neurologic sequlae of measles accounted for a larger percentage of deaths in 10– to 14-year-old (Barkin, 1975).

Measles vaccine is safe and effective and when widely used it dramatically reduces morbidity and mortality. Prevention through vaccination remains the keystone in further breakthroughs in decreasing mortality associated with measles. Continuing morbidity and mortality attributed to measles must serve to highten our awareness of this preventable disease (Barkin, 1975).

As will be discussed later many studies have stressed the importance of age at the time of measles vaccination and its effect on the immunologic response following vaccination. The results of those studies were conflicting. The aim of our study is to verify the relationship between age at the time of measles vaccination and the measles antibody status 4 weeks following vaccination using the more sensitive and specific enzyme-linked immunosorbent assay (ELISA). This is of utmost importance in planning a strategy for effective and rapid control of measles.