ANTIGENICITY OF VARIOUS TYPES OF MEASLES VACCINES AMONG EGYPTIAN INFANTS

THESIS

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By

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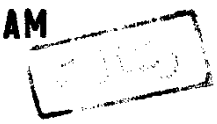

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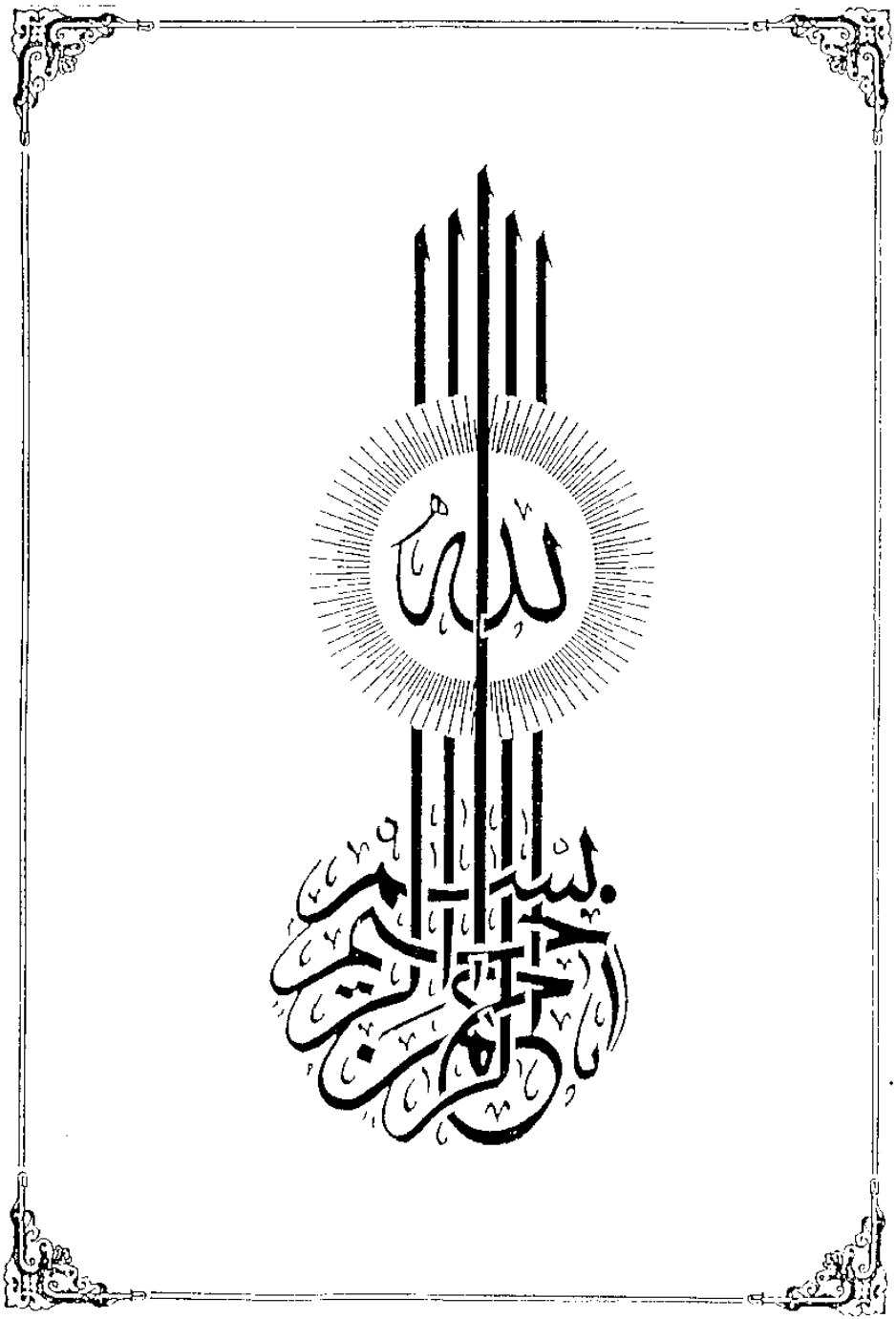
بسم الله الرحمن الرحيم

« قالوا سبحانك لا علم لنا الا ماعلمتنا انك انت العليم الحكيم »

صدق الله العظيم

(سورة البقرة الآية ٣٢)



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CONTENTS

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TABLES

Table No. Page

FIGURES

Introduction & Aim of the Work

INTRODUCTION AND AIM OF THE WORK

Measles is an acute communicable disease, which is endemic over most of the world. In the past, epidemics tended to occur at intervals of 2 to 4 years. As it is extremely infectious, few children escape attack and thus the disease is relatively infrequent in adults.

Although it is a mild viral disease, but its complications are occasionally dangerous and its transmission to susceptible contacts often occurs before the diagnosis of the original case has been established. (Barnett and Einhorn, 1968).

The availability of safe, effective means for inducing active immunity against measles, has led to the use of attenuated measles virus vaccine in 1963, which affords 95-100% protection against natural disease with a probably lifelong immunity. Although vaccination brought a marked decline in the incidence of clinical measles, recent experience indicates that a sizable reservoir of susceptible persons exists despite the widespread use of measles vaccines in the last years (Kempe et al., 1980).

The aim of this work is to study the antigenicity of various types of measles vaccines used in Egypt at various infancy periods.

REVIEW OF THE LITERATURE

REVIEW OF LITERATURE

Measles

Measles is an acute communicable disease characterized by 3 stages, an incubation stage of approximately 10 to 12 days (with few, if any, signs or symptoms); a prodromal stage (with an enanthem "koplik spcts" on the buccal and pharyngeal mucosa, mild to moderate fever, slight conjunctivitis, coryza and an increasingly severe cough); and a final stage (with a maculopapular rash erupting successively over the neck, face, body, arms and legs, and accompanied by high fever). (Phillips, 1979).

There is some doubt about the origin of the name measles. Most probably it comes from the latin term "misellus" or "misella", itself a diminutive of the latin "miser", meaning miserable. It was used in this way for the sufferer from various skin eruptions and sores by Langland in the 14th century, and also later by Shakespear. The anglicized form of misellus, namely "mesels", hence forward became applied not to the sufferer of ill-defined skin lesions but to the specific disease morbilli. (Measles). (Wilson, 1962).

History

No accurate information is available on the

early history of measles. The disease was certainly confused with small pox and though the Arabian physician, Rhazes, was generally credited with having drawn a distinction in the 10th century between the two diseases.

By the beginning of the 17th century the demarcation between them was becoming clearer.

Subsequently, confusion started between measles, scarlet fever and rubella. Fortunately, owing to the work of Enders and his colleagues, we can now say, in the face of clinical doubt, that measles is a disease caused by measles virus and by that alone. (Wilson, 1962).

Incidence

Measles is a truly universal disease prevalent in all countries and among all peoples (Assaad, 1983). Unlike influenza, which causes pandemics from time to time, measles is always pandemic. In the past, epidemics tended to occur irregularly, appearing in large cities at 2 to 4 year intervals as new groups of susceptible children were exposed. (Phillips, 1979).

In individual countries, however, its prevalence varies from time to time and from place to place. In