PREVALENCE OF PARASITIC INFESTATION AMONG PRIMARY SCHOOL CHILDREN IN A REMOTE AREA IN ABU DHABI

THESIS

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قـــال اللـه تعالـــى :

بسم الله الرحمن الرحيم

" ويسئلونـــك عـــن الـــروح ، قـــل الـروح مـن أمـر ربـــــى

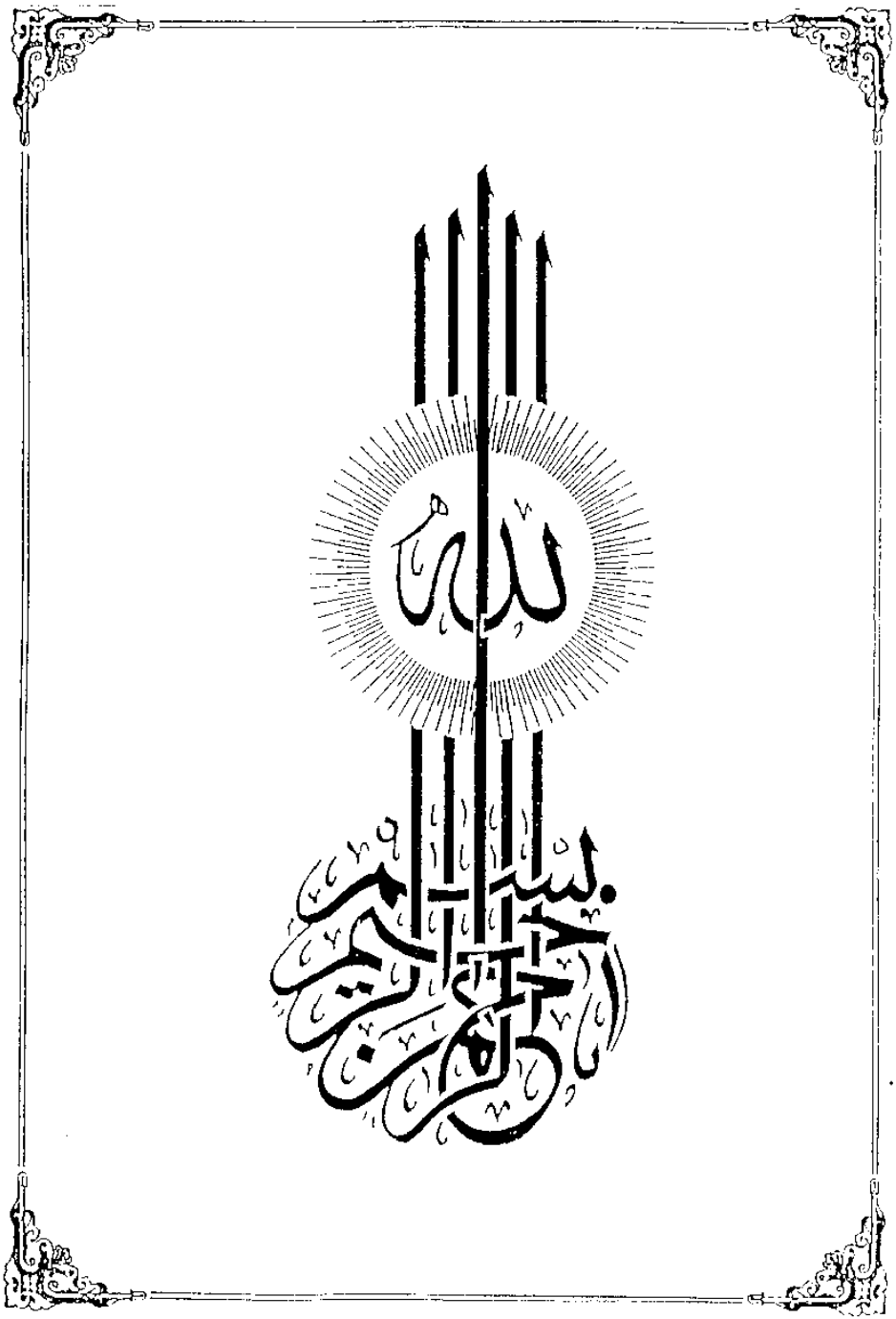
وما أوتيتـــم مـــن العلـــم الا قليـــــلا "

صدق الله العظيم

مكيـــــة

ســـــورة الاســـــراء

الآية ٨٥ الجزء الخامس عشـ



DEDICATED TO

MY BELOVED WIFE AND SON

ACKNOWLEDGEMENT

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INTRODUCTION

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Children are the hope of the country. They are the major age group of population in most of world countries including Arab countries. Primary school children form a big part of all children. They are spending many times in the school and they are exposed to many hazards at that time.

Parasitic infestation is common among school children and it causes a major problem among them (Pawlowski, 1988). In Gulf areas there is no enough studies about the prevalence of parasitic infestation among school children due to lack of statistical reports, as well as epidemiological studies especially in the remote areas. Also most of researches on parasitic disease stress only on the prevalence of the disease without the epidemiological factors related to the prevalence or incidence of diseases.

Epidemiological study is essential to throw some light on the natural history of the disease and on the various factors that determine its occurrence (Maxcy, 1980).

Therefore our study will be conducted in Abu Dhabi at a remote area called Gayathi. This study aims at:

1. Determining the prevalence of parasitic infestation in primary school children.

2. Studying the epidemiological factors among affected children.

REVIEW OF LITERATURE

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Intestinal parasites are of greater importance in health policy in tropical developing countries. On account of increasing numbers of travellers into these countries for purpose of work, these problems gain significance for us. (Pawlowski, 1988).

Data on the prevalence of parasitic infection among people in developed countries is quite variable depending on the country and whether the subjects are permanent residents, tourists or immigrants.

Rifaat et al. (1962), on survey done among school children in El Dakhla Oasis (52 pupils) and El Kharga Oasis (125 pupils) in El Wady El Gadeed. They found the intestinal parasites equal to 78.8% and 84.4% in El Dakhla and El Kharga Oasis respectively. (Aspock, 1980).

This high prevalence was due to low standard of living, bad hygienic conditions, no proper sewage disposal and abundance of flies. The parasitic distribution was as follow: E. vermicularis was 5.5% in El Kharga Oasis, Ascaris lumbricoides was 0.8%in

El Kharga Oasis, Hymenolepis nana was 11.5% and 15.6% in El Dakhla and El Kharga Oasis respectively, Giardia lamblia was 5.7% and 24.2% in El Dakhla and El Kharga Oasis respectively.

In Italy, Ricci et al. (1973) had undertaken a study upon 298 school children aged 7-12 years from Brindisi (A) and its environs (B). They were examined for intestinal parasites. Children from the city group (A) were 46 boys, 59 girls and from rural areas; group (B) were 96 boys and 97 girls. More than 50% of each group had some kind of intestinal parasite whether protozoal or helminthic. The most common was Enterobius vermicularis in 50% of each group, then Giardia lamblia in group (A) and Trichocephalus trichuris in group (B), Hymenolepis nana 8% in each group and Entamaeba histolytica 2%. Ascaris was present only in group (B).

Fahim, (1977), examined the children of a primary school in M ohamady area in Cairo. Among 200 children (125 males and 75 females) examined, 64.5% infected with parasite, their distribution was as follows: Entamaeba histolytica 38.5%, Hymenolepis nana 13.5%,

Ascaris lumbricoides 12% and Giardia lamblia 8%. She found double infection in 12% of parasitic infestation and infection was 68.8% in male and 68% in female.

Ejezie, (1981), a survey of 5595 primary school children in Lagos State, Nigeria showed that most of the children were over-loaded with parasitic infestations which included malaria (37.7%), schistosomiasis (13.4%), ascariasis (74.2%), trichuriasis (75.8%), hookworm (29.5%) and tungiasis (49.5%). Multiple infections were observed with about 16.2% harbouring all the causative organisms of the parasitic diseases enumerated above. The high prevalene of parasitic infestations among these children is an index of the community's low level of health and also of inadequate health education , because most of these diseases are preventable if people are told what to do.

Grell et al., (1981) a study in Dominica, West Indies, among primary school children aged four to twelve years showed that infection with gastrointestinal parasites was very common. Trichuris was found in the stools in 92% of the children, Ascaris in 38%, Necator in 11%, Giardia in 18% and E. histolytica in 1%. In spite of the high prevalence of parasites,

the general health of the children studied was remarkably good, and only 18 of the 1000 children were found to have a haemoglobin level below 10 g/dl.

Sturchler and Peter, (1981), in a village of the Swiss Jura (France), they examined 134 school children (7 to 16 years old) clinically, parasitologically and serologically for parasites. Half of the children showed an insufficient hygiene of hands, feet and/or anus. In 7 out of 107 anus-scotch-tests, there were eggs of Enterobius vermicularis. Protozoans could be demonstrated in 8 of 133 stool samples (2 of them were Giardia lamblia). Altogether parasites were found in 10% of the children. In this study, intestinal protozoans and E. vermicularis were the most commonly occurring parasites followed by asymptomatic toxocariasis.

Awad, (1983), recorded that parasitic infection among primary school children in Shoubra, Cairo, was 67% and the parasitic infection was distributed as follows: E. vermicularis 46.09 % H. nana 9.46%, E. histolytica 11.52%, Ascariasis 9.05% and Giardiasis 9.05%. He found multiple infection with parasites