STUDY OF THE PRESENT STATUS OF FILARIASIS IN AN ENDEMIC AREA IN GIZA GOVERNORATE

Thesis

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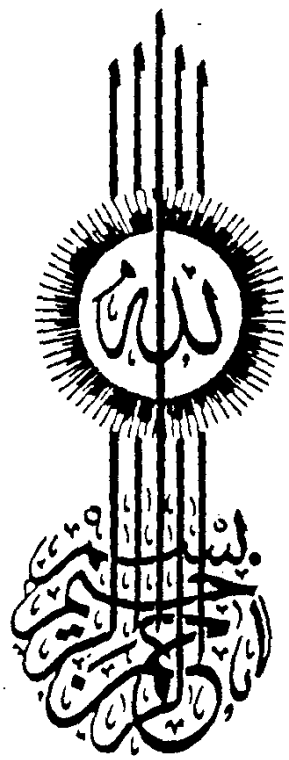
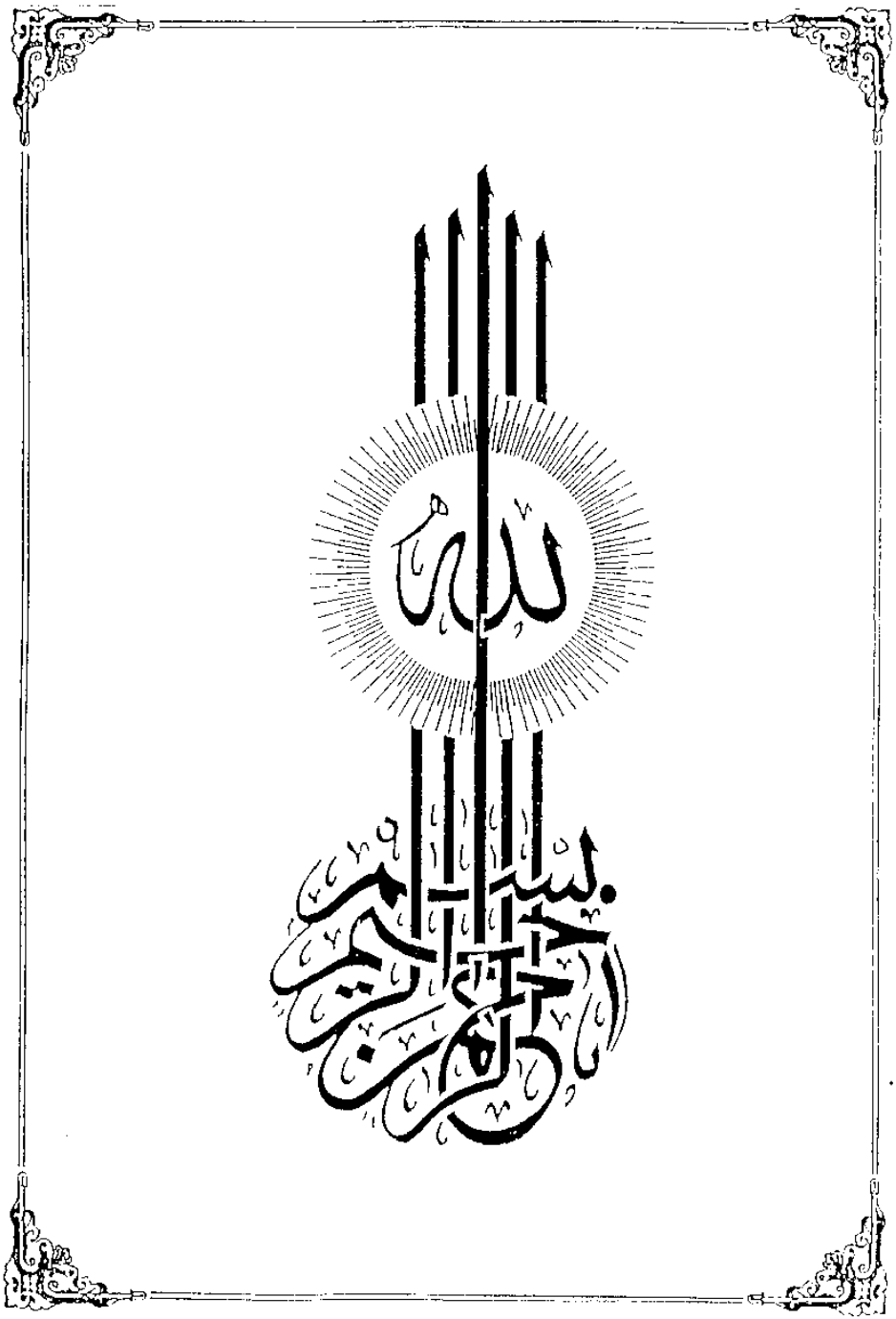


وَقُل اعمَلُوا فَسَيَرَى اللَّهُ عَمَلَكُم
وَرَسُولُهُ والمُؤمِنُونَ

صدق الله العظيم

" سورة التوبة / ١٠٥ "



To My Father

&

My Mother

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INTRODUCTION

Filariasis had been known in Egypt since ancient times, elephantiasis was known to ancient Egyptians (Sonsino 1874). The first Arabic description of elephantiasis was made by Ibn El-Razy (850-930 PC). In the tenth century, Ibn Sina described the disease in his book "kanoon El Teb" of microfilaria in the blood of man in Egypt was made by Sonsino in 1874 they also proved that Culex pipiens is the vector in Egypt.

Nowadays the state of filariasis has been changed in the world, becoming absent from previous endemic areas, and also follows a patchy distribution (Beaver, 1984). This is due to the use of mass chemotherapy and vector control measures.

Kafr-Ghataty, avillage in Giza governorate near Pyramids 15km from centre of Cairo, is an example of the post and current status of filariasis in Egypt. In this village according to Southgate (1979), the prevalence of microfilaraemia has declined from 40,7% in 1910 to 1,2 in 1962 (Shawarby et-al, 1965).

In 1977(a) Youssef et-al., found a rate of 6,87% and that recorded by M.P.H. At 1982 was 2,6%

AIM OF THE PRESENT WORK.

To study the present status of filariasis in Kafr-Ghataty, and Azizya (Giza Governorate) Concerning prevalence of microfilaraemia and clinical picture among inhabitants, in addition to the study of the prevalence of the mosquito Vectors.

PLAN OF THE WORK:

1- Clinical examination of inhabitants from Kafr-Ghataty village for filariasis (oedema - lymphangitis - lymphadenitis - elephantiasis - hydrocele - chyluria..).

2- Blood examination of inhabitants for microfilaraemia by thick drop method, wet preparation and counting chamber technique.

3- Collection of mosquitoes from indoors, identification and examination for filarial larvae.

4- Collection of mosquitoes larvae from different breeding places (canals, drains, seepages cesspits..) for identification.

REVIEW OF THE LITERATURE

BANCROFTIAN FILARIASIS

Historical Note:

In 1863, Demarqway first demonstrated the microfilaria in hydrocele fluid of a patient from Havana, and 1866, in Brazil Wuchere noted them in the urine of a patient in 1872, in India lewis saw these microfilariae in blood. In 1977, the Eldr Bancrofti discovered the adult female in Australia, while Bourne (1888) discovered the adult male.

Manson (1878) stated that the Culex pipiens Fatigans and Culex quinque-fascitis are the intermediate host and also recorded in 1879 the phenomena of nocturnal microfilarial periodicity (Bin Ford and Connor, 1978).

Taxonomy:

According to Thomas (1986):

Phylum	:	Nemata
Class	:	Secernentea
Subclass	:	Spiruria
Order	:	Spirurida
Super family	:	Filarioidea
Family	:	Filariidae
Genus	:	Wuchereria
Species	:	Bancroft.

Filariasis in Egypt:

Khalil (1939), reviewed the Arabic history of filariasis and stated that filariasis is known since the ancient times as revealed by a statue in the pharaonic museum with swollen lower limbs. The first Arabic description of elephantiasis was made by Ibn el Razy (850-930 pc.) who described it as a well known disease.

Ibn Sina in the tenth century in his book "Kanoon Al Teb"

confirmed the description of Ibn el Razy and described the disease in the genitalia.

Members of Napoleon campaign recorded that elephantiasis was common in Rosetta, Damietta, Alexandria and Cairo (Southgate, 1979).

Shawarby et al., (1965) revealed that the first record of microfilaria in the blood of man in Egypt was made by Sonsino in 1874, Culex Pipiens was proved to be the Vector in Egypt by Khalil et al (1932).

GEOGRAPHICAL DISTRIBUTION AND PREVALENCE IN EGYPT

At 1910 Todd and white examined 433 cases from six districts in Giza Governorate and found a percentage that ranged between 9% and 47,5% with a total percentage of 28,8%. Table (1) During the period from 1934 to 1936, Khalil carried out a survey on 1000 persons in Rashid and other districts, and found that the percentage ranged between 1 and 62%. With average of 24,1% in Rashid. Table (2).

Two major studies done by Baz (1946) and Shawarby et al (1965), have been conducted all over Egypt to determine the distribution of filariasis in Egypt:

1. Baz (1946) examined 8176 cases, and found an incidence that ranged between 0-8,6% and 739 cases in Giza Governorate with an average of 4,8% Table (3).
2. Between 1955 - 1964 Shawarby et al studied filariasis in 20 Governorates including 1227 localities belonging to 141 political districts. Table (4)

They stated that filariasis is almost limited to the Eastern part of the Nile Delta. Infection was widely spread and incidence was rather high in Qalyubia Governorate (7,2%) lesser in Sharqiya Governorate (6,04%) and less so in Daqahlyia Governorate (2,7%) and in Damietta (0,9%). In the canal zone the prevalence was very low (0,1%). Towards the west the infection diminished greatly and in the center of the Delta, the incidence of positive films was found to be marked by low (0,005%) in Kafr El-Sheikh Governorate, 0,07% in Gharbiya a Governorate and 0,08% in Minufiya Governorate).

In the western part of the Delta, in the Beheira Governorate a similar situation prevailed (0,1%) apart from Rosetta which lies north wards along the Mediterranean shore, which was 1,2%.