PARASITOLOGICAL AND CLINICAL STUDIES ON SCABIES

THESIS
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(Parasitology)

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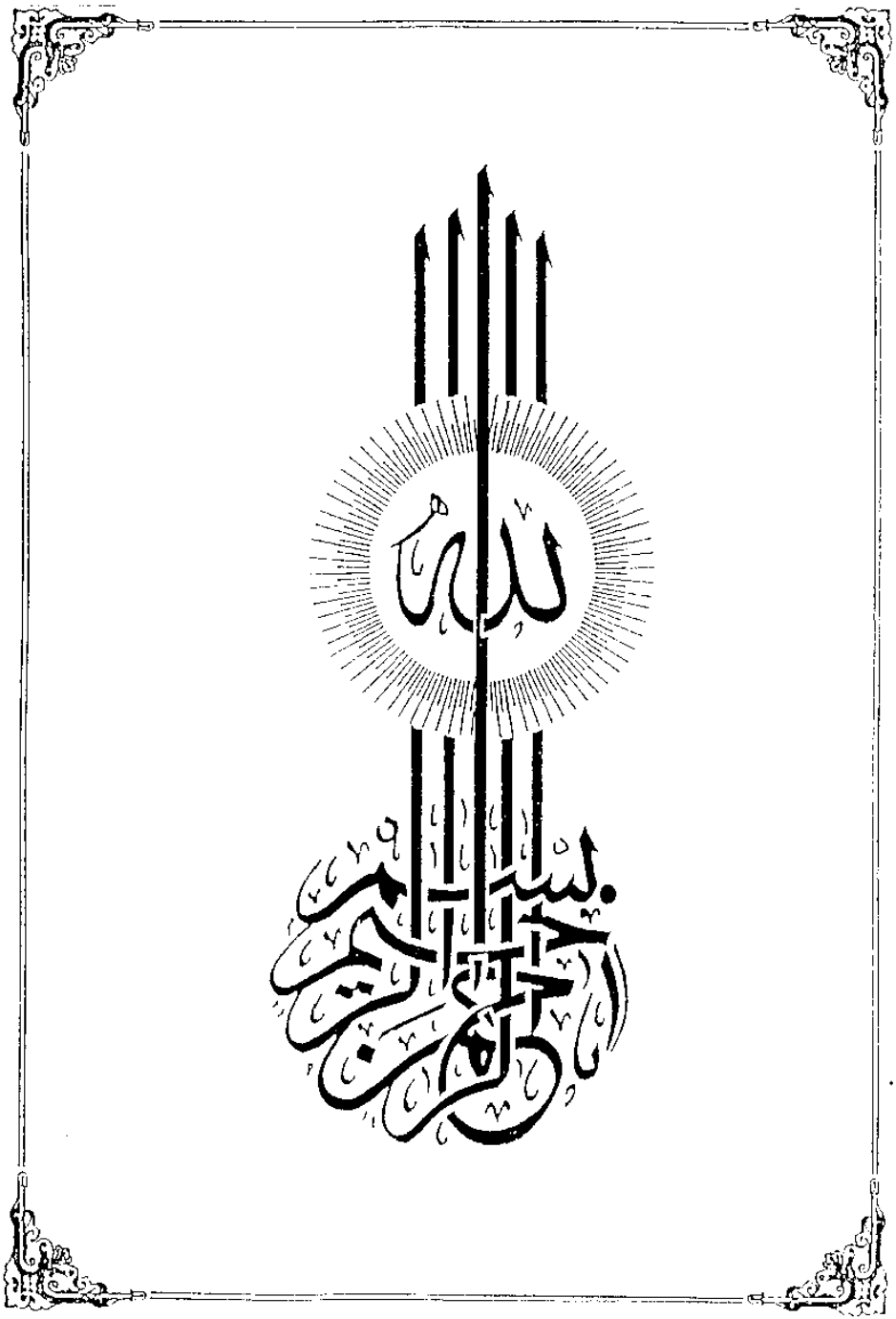
TO MY BELOVED HUSBAND
FOR HIS DEVOTION, SUPPORT
AND GUIDANCE

HALA



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Hala Kamal Hassan El Deeb, 1993

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LIST OF ABBREVIATIONS

AGN	acute glomerulonephritis
AIDS	Acquired Immune Deficiency Syndrome
BIT	Burrow Ink Test
C	Complement
CHCFs	Chronic health care facilities
HLA	Human leucocytic antigen
Ig	Immunoglobulin
KOH	Potassium hydroxide
No.	Number
S.scabiei	*Sarcoptes scabiei*
SST	Skin Scraping Test
wks	weeks
yr	year
%	Percent
≤	Less than or equal
>	More than

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INTRODUCTION

INTRODUCTION

Scabies is a very old contagious skin disease which is caused by the burrowing of a mite; *Sarcoptes scabiei* into the stratum corneum. It was mentioned in the ancient Egyptian "Papyrus" and was described by Ibnsina (Avacina) in his book "El Kanon" *(Kenawi et al., 1993).*

Scabies has a worldwide distribution with considerable prevalence in Egypt and it is one of the most common contagious parasitic diseases in Egypt *(Morsy et al., 1993).* In Egypt, scabies has been delt with by some, but not many, authors as Abo-Shady et al. (1985), Kenawi et al. (1993) and Morsy et al. (1993).

The occurrence of scabies epidemics every 15 years and the fluctuation in its incidence in various parts of the world is a real challenge to dermatologists, parasitologists, and veterinarians worldwide *(Alexander, 1984).*

Nowadays, scabies is considered as a serious public health problem in Egypt as claimed by Morsy et al. (1993).

REVIEW OF LITERATURE

REVIEW OF LITERATURE

MITES

Introduction

Mites belong to phylum arthropoda.

Arthropods are of medical importance because of the role they play in causing diseases either through the transmission of disease - producing agents, or the direct action through the inoculation of poison or through invading tissues. The five classes of arthropods categorized as being of medical importance are: *(Gordon and Lavoipierre, 1962)*

1. Chilopoda	Centipedes
2. Pentastomida	Tongue worms
3. Crustacea	Crabs, crayfish, and copepods
4. Arachnida	Spiders, scorpions, mites, and ticks
5. Hexapoda	Insects

I. TAXONOMY OF MITES

Classification *(Beaver et al., 1984)*

Phylum	*Arthropoda* V. Siebold and Stannius, 1845
Subphylum	*Chelicerata* Heymons, 1901
Class	*Arachnida* Lamarek, 1815
Subclass	*Acari* Leach, 1817, (Ticks and Mites)
Order	*Parasitiformes* Reuter, 1909.
Suborder	*Gamasida* van der Hammen, 1968
Order	*Acariformes* Zachvatkin, 1952
Suborder	*Actinedida* van der Hammen, 1968
Suborder	*Acaridida* van der Hammen, 1968

Order *Parasitiformes* Reuter, 1909:

These are forms with 1 to 4 pairs of stigmata (a pair of respiratory spiracles) posterior to the coxae of the second pair of legs. The stigmata may be associated with simple encircling plates or grooves (peritremes) of varying length and complexity.

Suborder *Gamasida* van der Hammen, 1968:

These are mites possessing a small, toothless hypostome; eyes lacking; tracheae present, opening above or behind third coxa; opisthosoma without annulations or ventral furrows, and body often with leathery shield. Representatives are *Ornithonyssus bacoti* and *Dermanyssus gallinae*.

Order *Acariformes* Zachvatkin, 1952:

Mites without visible stigmata posterior to the coxae of the second pair of legs; some forms are with simple sensilla sensory organs or optically active setae and sensory structures located on the anterior portion of the prosoma (propodosoma).

Suborder *Actinedida* van der Hammen, 1968:

Forms having 3 to 5 segmented palps; propodosomal sensory organs often present. Some species with paired stigmata at or near the base of the chelicerae or on the propodosoma. Representatives are *Demodex folliculorum, Pyemotes tritici, Leptotrombidium spp., and Cheyletiella spp.*

Suborder *Acaridida* van der Hammen, 1968:

Forms having 2 segmented palps and no specialized sensory organs on the propodosoma. Respiration is through the integument so that there is no evidence of tracheae, stigmata, or peritremes. Representatives are *Sarcoptes scabiei, Tyrophagus spp., Acarus spp., Glycyphagus spp., and Dermatophagoides spp.*

So *Sarcoptes scabiei (S.scabiei)* mite is classified as follows:

Class Arachnida
Order Acarina
Suborder Sarcoptiformes
Cohort Acaridae
Family Sarcoptidae
Subfamily Sarcoptinae
Genus *Sarcoptes*
Species *scabiei*