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# EVALUATION OF THE EFFICACY AND SAFETY OF IVERMECTIN IN THE TREATMENT OF SCABIES

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Thesis
Submitted in Partial Fulfillment
For the Master Degree
Dermatology and Venereology

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## ACKNOWLEDGEMENT

I have the honour to express my greatest appreciation and gratitude to my **Professor Dr. Mahmoud El-Bayoumi**, Professor and Head of Dermatology and Venereology, Benha Faculty of Medicine, for his kind supervision, continuous support and encouragement.

It is a great pleasure to express my sincere gratitude and cordial thanks to my **Professor Dr. Abd El-Aziz El-Taweel**, Assistant Professor of Dermatology and Venereology, Benha Faculty of Medicine, for his faithful supervision generous advice, guidance and constant help while conducting this work.

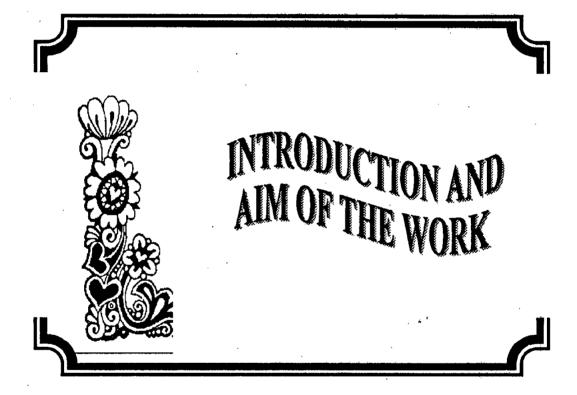
My Deep appreciation and indebtedness to **Dr. Hala Mostafa El-Hady** Assistant Professor of Community Medicine, Benha Faculty of Medicine, for her energetic help, scientific and moral support.

I am much obligated and greatly idebted to Professor Dr. Hussien Abd El-Moniem Sayed Professor of Pharmaceutics, Faculty of Pharmacy, for his kind help, that enabled me to complete this work.

My special thanks and gratitude to all my colleagues in the department od Dermatology and Venereology, Benha Faculty of Medicine for their cooperation and sincere help.

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#### INTRODUCTION

Scabies is one of the most frequent pruritic dermatosis encountered by the physicians. The disease is caused by the itch mite sarcopetes scabiei (Andrews, 1990).

The disease usually affects one or more members of the same family. It is characterized by intensive itching, presence of excoriated papules, pustules and cutaneous burrows (Rook, 1979).

There are several currently available scabicides (Burns, 1991). The choice of the drug should be based on its efficacy and potential toxicity (Orkin and Mabach, 1991).

Treatment failure may be the result of several factors. Inadequate health education and improperly administrated treatment are the most frequent causes (*Paller*, 1993).

Oral Ivermectin is a valuable alternative to benzyl benzoate local treatment (Glaziou, 1993).

Ivermectin is a safe and effective treatment of scabies as compared with placebo (Macotela, 1993).

The beneficial results on healing of scabietic lesions following Ivermectin indicates that the drug may have a scabicidal effect. Reappearance of the lesions may be due to an inadequate dose (Kar et al., 1994).

## AIM OF THE WORK

The aim of the present work is to evaluate the efficacy and safety of a single 200 microgram per kilogram dose of Ivermectin as compared with placebo in the treatment of scabies and to compare its efficacy with that of topically applied permethrin in the treatment of scabies.



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#### **HISTORICAL REVIEW**

Scabies affected mankind since ancient times, as early as 384 B.C. Scabies was confused with lice infestation. Aristotle discussed a condition which he called "Lice in flesh" manifested by vesicles (*Parish*, 1985).

Scabies has been a common disease for at least 300 years and was described in ancient China, India and the Middle East. The Scabies mite was first described by Avenzoar and his student Averroes in Spain in the 12th century (*Parish*, 1977).

Hebra (1968) stated that, El-Tabry was the first Arabian who pointed to an insect inside the skin, which could be extracted by a needle. Then Ibencenna, in the 9th century, described scabies and its treatment in his book El-Canon.

Parish (1977) stated that the mite could be recovered from the pustules of a scabietic patient and demonstrated it in his book, but other physicians could not isolate it. However in 1834, Renucci discovered the mite from a scabietic lesion of a patient but not from the vesicles then Thomas Hellier in 1865, completed the history of scabies concerning its pathogenesis and pathology. Then in 1944, Mellanby described the life cycle of Acarus Scabiei.

Furrtenbergin (1861) differentiated a species under the name of sarcoptes scabiei crustosae, which is rounded slightly longer than broad.

### **PARASITOLOGY**

Sarcoptes Scabiei, is the mite which produces scabies in 40 different hosts of mammals (Fain, A. 1978).

Parasitologically, these mites are classified as follow (Lomholt, G. 1978):

- Order : Acavinae.

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- Suborder : Sarcoptiformes.

- Class : Arachnido.

- Group : Acaridiae.

- Subgroup : Sarcoptidae.

- Genus : Sarcoptes.

- Species : Scabiei.