سامية محمد مصطفى

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

سامية محمد مصطفى

شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم

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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

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بالرسالة صفحات لم ترد بالأصل

PHARMACOKINETICAL STUDIES OF BEPHENIUM AND PYRANTEL IN LACTATING GOATS

THESIS

Presented by

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(B.V.Sc., Suez Canal University, 1992)

For the degree of
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(Pharmacology)
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Approval Sheet

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وَعَلَّمَكَ مَا لَمْ تَكُنْ تَعْلَمُ

وَكَانَ فَضْلُ اللَّهِ عَلَيْكَ عَظِيمًا

صَدَقَ اللهُ العَظِيم

سورة النساء آية ١١٣

dedication

To my parents

Words can never really describe
how much I appreciate what you did
But let me try . . .

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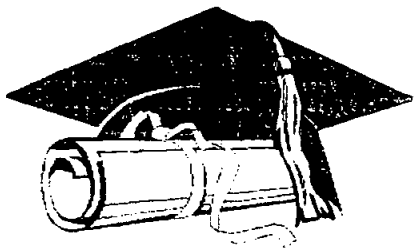

Thesis of pharmacology

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Introduction

1- INTRODUCTION

From the economic point of view, goats were among the first domestic animals kept by man for the production of meat, milk, skin and fibre. Although most of world population of approximately 400 million goats are mainly for meat production, in western countries, goats are mainly known as dairy animals, as lactation normally lasts for 8 to 9 months. In Egypt, goats considered from the most economically important animal specially in Sinai and other areas **(Hassan, 1980)**. Moreover, as an experimental animal, goats are used as the model of lactating ruminants **(Gall, 1964; Kessler, 1979; Larson, 1978)** for its advantage of small size, docile temperament and quickly adapt to experimental conditions.

Generally, parasitic helminth infestations in rumminants are wide spread and cause many economic losses through the world **(Anderson et al., 1976)**. Unfortunately, internal parasitism is the most common problem in goats **(Fabiyi, 1973; Van Tonder, 1975)**. Nematodes such as ***Ostertagia, Haemonchus, Trichuris, Chabertia, Strongyloids*** and hook worm infestation causes considerable losses as decrease in both growth rate and milk production **(Anon, 1973)**.

Bephenium hydroxynaphthoate and pyrantel tartrate as anthelmintic agents are widely used in veterinary medicine for prophylactic and treatment of many helminth infestations.

Bephenium hydroxynaphthoate was discovered by **Copp *et al.*, (1958)**. It belongs to the group of quaternary ammonium compounds. It is an effective anthelmintic against ***Nematodirus, Cooperia, Haemonchus*** and ***Trichostrongylus*** species **(Chroust and Lax 1967)**..

Pyrantel tartrate is an effective anthelmentic agent, that belongs to tetrahydropyramidines. It was discovered by **Austin *et al.*, (1966)**. Pyrantel has a broad spectrum activity against a wide variety in gastrointestinal nematodes in sheep, pigs and cattle after adminstration of a single oral dose of 25 mg/kg body weight (b.wt.) **(Cornwell and Jones, 1970)**.

Our goal was therefore, an attempt to explain certain pharmacokinetic aspects of these two anthelmintics as elimination of pyrantel and bephenium through milk and urine. Also, effects of these two drugs on activities of certain enzymes in goats were studied.