



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات
لم ترد بالأصل

Samia

Cairo University.
Faculty of Veterinary Medicine.
Dep. of Internal Medicine,
Infectious Diseases and Fish.

“Studies on some diseases transmitted by ticks in small ruminants”

Thesis presented

By

Tarek Ramadan Abo-Elnaga Hassan.

(B.v.sc. Cairo Univ., 1987).
(M. v.sc. Cairo Univ., 1993).

For

**Ph.D. Vet. Degree
(Infectious Diseases)**

Under supervision

Of

**Prof. Dr. Samia A. Ahmed.
Prof. of infectious diseases
Faculty of Veterinary. Medicine.
Cairo University.**

**Prof. Dr. Mohmed S. Soliman.
Prof. of parasitology.
Faculty of Veterinary Medicine.
Cairo University.**

**Dr. Sayed M. M. Abdel-Baky.
Researcher of Animal Health Dep.
Desert Research Center.**

(2000)

B
1-297

Cairo University.
Faculty of Veterinary Medicine.
Dep. of Internal Medicine,
Infectious Diseases and Fish.

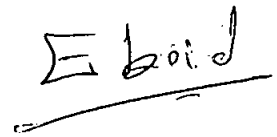
APPROVAL SHEET

This is to approve that the dissertation presented by **Tarek Ramadan Abo- El Naga Hassan** to Cairo University entitled:

"Studies on some diseases transmitted by ticks in small ruminants". For the degree of Ph.D. Vet. (Infectious Diseases) has been approved by the examining committee:

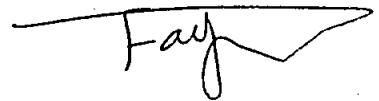
1- Prof. Dr. MOHAMED HASSANIN EBID.

Prof. of Infectious Diseases
Faculty of Vet. Med. Moushtoher.
Zagazig University.



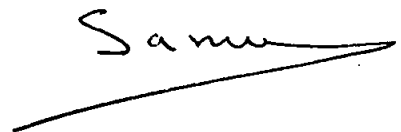
2-Prof. Dr. ADEL ABD EL AZEIM FAYED.

Prof. of Infectious Diseases
Faculty of Vet. Med.
Cairo University.



3-Prof. Dr. Samia ABD EL HAMID AHMED.

Prof. of infectious diseases
Fac. Of Veterinary. Medicine.
Cairo University.
Supervisor.

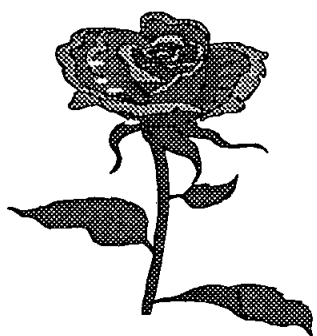


Date: 14/ 5/ 2000

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Dedication

To my distinguished late Professor Dr: Mohamed S. Soliman, who exerted himself for the sake of his student, who dedicated all his life to the veterinary science and whom we trod proudly on his foot steps, God Bless him.



TO MY PARENTS, WIFE,
DAUGHATER AND SON.



LIST OF CONTENTS

	Page
1. INTRODUCTION	1
2. LITERATURE	3
2.1- Incidence of infection	3
2.2- Vectors of Babesiosis and Theileriosis and its distribution.	10
2.3- The diagnosis of tick-born diseases	15
2.3.1- Clinical signs.....	15
2.3.2- Blood film examination.	17
2.3.3. Diagnosis by antibody detection "Serodiagnosis".....	17
2.3.3.1-Indirect fluorescent antibody technique (IFAT)	17
2.3.3.2. Enzyme-linked immunosorbent assay (ELISA)	20
2.4- The hematological picture associated with tick- borne diseases.	21
2.5 - Prevention of tick-borne diseases.	24
A - Treatment of tick-borne diseases (T.B.D).	25
B- Ticks control.....	26
3-MATERIALS & METHODS	30
3.1- Materials.	30
3.1.1- Investigated animals and localities.....	30
3.1.2- Samples.	30
3.1.3-Chemicals for blood picture and staining blood films.	30
3.1.3.2-Equipments.	30
3.1.4- Collection of ticks.	31
3.1.5. - Indirect fluorescent antibody technique.....	31
3.1.5.1-Supplementary reagents.	31
3.1.6. - Enzyme linked immunosorbent assay (ELISA).....	32
3.1.6.1- Supplementary reagent.	32
3.1.7. Drug.	33
3.1.8. Acaricides.	33
3.2- Methods.	34
3.2.1 -Preparation of sera.	34
3.2.2 - Preparation of Blood samples.	34
3.2.3-Identification of collected ticks.....	34

3.3-Parasitological & serological examination.	35
A-Blood films.....	35
B-Indirect fluorescent antibody technique.....	36
- The IFA procedure.....	36
- Reading the test.....	37
C- Enzyme linked immunosorbent assay (ELISA).....	37
-Determination of Protein concentration.....	38
- ELISA Procedure.	38
- ELISA cut off.	39
3.4 -Determination of acaricides efficacy.	39
 4 – <u>EXPERIMENTS AND RESULTS.</u>	 41
Exp. 1- Prevalence of blood parasites in small ruminants in northwestern coastal region.....	 41
Exp. 2 - The effect of the natural infection with <i>Babesia ovis</i> &<i>Theileria ovis</i> on the heamogram parameters of sheep and goats.....	 64
Exp. 3 - Identification of collected ticks from small ruminants of northwestern coastal region.....	 75
Exp. 4 - Treatment of <i>Babesia ovis</i> infection in small ruminants.....	82
Exp. 5 - Acaricidal efficacy for the control of the tick vector using some different compounds.....	 87
 5-<u>DISCUSSION</u>.....	 91
 6- <u>SUMMARY.</u>	 100
 7- <u>REFERENCE.</u>	 103
 8- <u>ARABIC SUMMARY.</u>	 128

LIST OF TABLES

Page

Table (1) Monthly Incidence of <i>Babesia ovis</i> among Barki sheep by blood film, Indirect fluorescent antibody (IFA) and enzyme-linked immunosorbent assay (ELISA) tests.....	43
Table (2) seasonal incidence of <i>Babesia ovis</i> among Barki sheep by blood film, IFA and ELISA tests.....	44
Table (3) Seasonal incidence of <i>Babesia ovis</i> among Barki sheep of the different location by blood films, IFA and ELISA testes in north-western coastal region.....	47
Table (4) Monthly Incidence of <i>Babesia ovis</i> among Barki Goats by blood film, Indirect fluorescent antibody (IFA) and enzyme-linked immuno - sorbent assay (ELISA) tests.....	51
Table (5) Seasonal incidence of <i>Babesia ovis</i> among Barki Goat by blood film, IFA and ELISA tests.....	52
Table (6) Seasonal incidence of <i>Babesia ovis</i> among Barki goats of the different location by blood films, IFA and ELISA testes in north-western coastal region.....	55
Table (7) Monthly incidence of <i>Theileria ovis</i> among Barki sheep and goats.....	58
Table (8) Seasonal incidence of <i>Theileria ovis</i> among Barki Sheep and goats.....	59
Table (9) Mean values of blood parameter of infected sheep with <i>Theileria ovis</i> and <i>Babesia ovis</i> in northwestern coastal region	67
Table (10) Mean values of differential leucocytic count of infected sheep with <i>Theileria ovis</i> and <i>Babesia ovis</i> in northwestern coastal region.....	68

Table (11) Mean values of blood parameter of infected goats with <i>Theileria ovis</i> and <i>Babesia ovis</i> in northwestern coastal region	72
Table (12) Mean values of differential leucocytic count of infected goats with <i>Theileria ovis</i> and <i>Babesia ovis</i> in northwestern coastal region.....	76
Table (13) Meteorological parameter of northwestern coastal region.....	77
Table (14) Monthly distribution of ticks in northwestern coastal region	78
Table (15) Seasonal distribution of ticks in northwestern coastal region....	78
Table (16) Clinical examination of Barki sheep naturally infected with <i>Babesia ovis</i> and treated with diminazine aceturate.....	84
Table (17) Clinical examination of Barki goats naturally infected with <i>Babesia ovis</i> and treated with diminazine aaceturate	85
Table (18) Clinical examination of untreated animals infected with <i>Babesia ovis</i>	86
Table (19) Efficacy of different pesticides on re-infestation by ticks.....	89
Table (20) Efficacy of Fluazuron in biological activity of ticks after painting the animal skin.....	89

LIST OF FIGURES

	Page
Fig. (1) Monthly & seasonal incidence of <i>B. ovis</i> infection in sheep using blood films, IFAT and ELISA tests.....	45
Fig. (2) incidence of <i>B. ovis</i> in sheep in northwestern coastal region by using blood films, IFAT and ELISA tests.....	48
Fig. (3) Monthly & seasonal incidence of <i>B. ovis</i> infection in goats using blood films, IFAT and ELISA tests.....	53
Fig. (4) incidence of <i>Babesia ovis</i> in goats in northwestern coastal region by using blood films, IFAT and ELISA tests.....	56
Fig. (5) Monthly & seasonal incidence of <i>T. ovis</i> infection in sheep & goats.....	60
Fig. (6) <i>Babesia ovis</i> in blood film of sheep.....	61
Fig. (7) <i>Theileria ovis</i> (erythrocytic & schizont forms) in blood films by using image analyzer.....	62
Fig (8) Negative indirect fluorescent antibody (IFA) reaction of <i>Babesia ovis</i> antigen with serum of sheep and goats.....	63
Fig. (9) Positive indirect fluorescent antibody (IFA) reaction of <i>Babesia ovis</i> antigen with serum of sheep and goats naturally infected with <i>Babesia ovis</i>	63
Fig. (10) Blood parameters of infected sheep with <i>Babesia ovis</i> and <i>Theileria ovis</i> in northwestern coastal region.....	69
Fig. (11) Blood parameters of infected goats with <i>Babesia ovis</i> and <i>Theileria ovis</i> in northwestern coastal region.....	74
Fig. (12) Meteorological parameters, monthly & seasonal tick incidence in sheep and goats.....	79