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بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

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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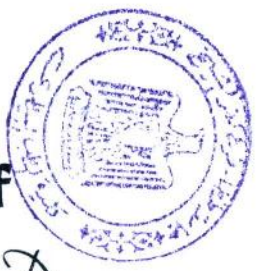
بالرسالة صفحات لم ترد بالأصل

SOME STUDIES ON MASTITIS IN CATTLE

By

Salama Ahmed Osman
(B.V.Sc., Assiut University, 1991)



Under Supervision of

Prof. Dr.
Ahmed Magdi Hafez
Prof. of Vet. Internal Med.
and Head of Animal Medicine Dept.
Fac. Vet. Med.
Kafr El-Sheikh, Tanta University

Prof. Dr.
Mohamed Salah El-Din Ibrahim
Prof. of Infectious Diseases
Fac. Vet. Med.
Zagazig University

Dr.
Gamal Abdel Gaber
Lecturer of Bacteriology
Fac. Vet. Med.
Kafr El-Sheikh, Tanta University

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قَالُوا سُبْحَانَكَ لاَ عِلْمَ لَنَا إلا مَا عَلَّمتَنَا

إنَّكَ أنتَ الْعَلِيمُ الْحَكِيمُ .

صدق الله العظيم

سورة البقرة : الآية ٣٢

Department of Animal Medicine
Faculty of Vet. Medicine
Kafr El-Sheikh
Tanta University

APPROVAL SHEET

This is to approve that the dissertation presented by Demonstrator **Salama Ahmed Osman** to Tanta University entitled **"Some Studies on Mastitis in Cattle"** for the degree of Master. Vet. Med. Science (Infectious Diseases) has been approved by the Examining Committee:

Signature

Prof. Dr. Mohamed E. Shawkat .....
Professor of Infectious Diseases
Fac. Vet. Med. Cairo Univ.

Prof. Dr. Farouk A. Moawad .....
Professor of Infectious diseases
Fac. Vet. Med. Zagazig Univ.

Prof. Dr. Mohamed S. Ibrahim .....
Emeritus Professor of Infections Diseases
Fac. Vet. Med. Zagazig Univ.

Prof. Dr. Ahmed M. Hafez .....
Professor of Vet. Internal Medicine
and Head of Animal Medicine Department
Fac. Vet. Med., Kafr El-Sheikh, Tanta Univ.

Date30/6/1996

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contents

INTRODUCTION

INTRODUCTION

Mastitis is an inflammatory change of the mammary gland which along with physical, chemical and microbiological changes, is characterized by an increase in the somatic cell count especially leukocytes in the milk and by pathological changes in the mammary tissue **(Tolle, 1971).**

Mastitis is a major disease problem which appears to be world wide in distribution and affects all species of farm animals. It attains its major significance in terms of the profound impact on the value and productive efficiency of milk producing animals **(Hafez *et al.*, 1987)**.

Mastitis varies from a non clinical infection to a severe acute febrile clinical form. Detection of mastitis at a nonclinical stage could reduce the spread of disease and consequent financial loss **(Esa-Matti Lilus and Ullamari Pesonen, 1990)**.

Dairy men believe that under natural condition about 1 to 3 percent of their cows suffering from clinical mastitis, in reality, scientists estimated that at least 50 percent of dairy cows have subclinical mastitis in 50 percent of their quarters. These subclinical infections may flare up to frank mastitis or may subside imperceptively, in either cases, about 12% of the total production of a cow for a single infected quarter is being lost (**National Mastitis Council, 1978**). Forty percent of the intramammary infections resulted in clinical mastitis, thus, subclinical intramammary infections were of extreme importance, in which the subclinically infected

animal continuous, for a time, to be a dangerous source of infection **(Abd El-Karim and El-Ashmawy, 1979 and Smith *et al.*, 1985)**.

Diagnosis of mastitis which is based on pathological changes caused by inflammation, presents no diagnostic problem as far as the clinical form of mastitis is concerned. The situation, however, is differed with regard to the diagnosis of subclinical mastitis where its diagnosis must be based on examination of quarter milk samples with putting in mind that the changes in milk composition are the signs of inflammation.

Both the aetiological agents and the dynamic nature of the disease influence considerably the concentration of inflammatory markers in the milk **(Jensen and Knudsen, 1991)**.

Kafr El-Sheikh is one of the governorate which has a high animal population and mastitis in large animals caused a major problem in both private and governmental farms, where it causes serious loss in animal production. Therefore, the present work was directed to:

1. Study the incidence of clinical and subclinical mastitis among dairy cows and buffaloes.
2. Evaluation of some indirect tests used for detection of subclinical mastitis.
3. Study the predominant organisms isolated from clinical and subclinical cases.
4. Study the antibiogram patterns of the isolated organisms.
5. Some trials of treatment.

LITERATURE

LITERATURE

1. Incidence of clinical and subclinical mastitis:

Abd El-Karim and El-Ashmawy (1979) revealed that 56.43% of the examined Iraqi dairy cows had been suffered from subclinical mastitis. Most of mastitic cows showed one or two infected quarters (48.10% and 30.38%, respectively), while four quarters were infected in few cases.

Mahmoud (1980) examined 96 dairy cows and 54 buffaloes in Behera Governorate. He found that the incidence of clinical and subclinical mastitic quarters was 12% and 25.3% in cows, and 9.3% and 20.4% in buffaloes, respectively.

Haggard *et al.* (1983) recorded that the prevalence of subclinical mastitis in two herds was 13%. They also recorded that the prevalence rate was increased with increasing age of lactating cows where this prevalence was 7.7% in the 2- to 3-years old cows, and 17.7% in the 7 years old cows or more.

Oliver and Mitchell (1984) in Massachusetts found that the incidence of mastitis caused by major pathogens in *Streptococcus agalactiae* positive herds was 85.5% in cows and 37% of the examined quarters were infected, while in *Str. agalactiae* negative herds these percentages were 26.3% and 10.2%, respectively.