بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية 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 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

EPIDEMIOLOGICAL STUDIES ON MASTITIS IN DAIRY COWS

A Thesis Presented

By

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بسم الله الرحمن الرحيم

"رب اشرح لی صدری و یسر
لی أمری و احلل عقدة من
لسانی یفقهوا قولی"

صدق الله العظیم

(سورة طه الآیات ۲۵ إلی ۲۸)

To

My Wife,

My Daughters

Shimaa & Esraaa, and My

Son Mohammed

ACKNOWLEDGMENT

FIRST OF ALL MY PRAYERFUL THANKS TO OUR MERCIFUL **GOD**, WHO GIVES US EVERYTHING WE HAVE

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Introduction

1.0 INTRODUCTION

Mastitis is an inflammation of the mammary gland. It results principally from infection with microorganisms. Various types of bacteria that produce mastitis are usually carried from diseased cows to teats of healthy cows on hands of milkers or in the teat cups of milking machines during milking. Microorganisms can also spread by flies or by contact with contaminated bedding or floors ***(Pyorala and Syvajarvi, 1987)***. Injury to teat opening and teat canal, and the improper use of teat tubes and dilators are also responsible for some udder infections ***(Molna and Muler, 1993)***.

Mastitis causes severe losses in milk quality and milk production. Estimates of various countries indicate 10 - 15% (2 billion dollars/year) loss in milk production ***(Philpot, 1984)***. Besides the economic aspect, emphasis must be given to public health concerns because many microorganisms which cause mastitis (or their toxins) can cause illness in human ***(Costa et al., 1995; Melville et al., 1996)***.

The pathogens responsible for bovine mastitis can be divided into two groups, based on their origin and method of transmission: contagious pathogens and environmental pathogens ***(Sandholm et al., 1990)***. The former is the most common, mainly transmitted during the milking process, with udder being the primary source of infection. The environment is the infection source of the later group. In both groups, mammary gland infection occurs mainly through the teat canal ***(Bramley and Dodd, 1984)***.

Heredity may have some bearing on mastitis. Some bovine families are more susceptible than others. Inheritance may determine the shape and structure of teats. Large pendulous udders are more prone to injury and consequently to infection ***(Ruban et al., 1993)***. High producers, especially those which are slow milkers, are often regarded to be more prone to infection than cows which yield a moderate supply of milk ***(Ollenacer and Ekesbo, 1994)***. The age of the cow also plays an important role in the genesis of mastitis, the older the cow the greater the incidence of mastitis ***(Todhunter et al., 1995)***. The number of udder infections increases with age, when no attempt is made to eradicate mastitis from a herd ***(Waage et al., 1999)***.

Prevalence of mastitis has been reduced in recent years through improvements in milking hygiene ***(Pankey, 1989)***, lowered exposure to environmental pathogens between milking, teat dipping ***(Nickerson et al., 1990)***, use of dry therapy ***(Owens and Ray, 1996)*** and dietary supplementation with micronutrients ***(Smith et al., 1984)***.

The primary reservoir of environmental pathogens is the dairy cows environment, whereas the primary reservoir of contagious pathogens is the infected mammary gland. Exposure of uninfected mammary quarters to contagious pathogens is limited to the milking process. In contrast, exposure of uninfected gland to environmental pathogens can occur at any time during the life of the cow, including milking time, between milkings, during the dry period and prior to calving ***(Costa et al., 1998)***.

Antimicrobial sensitivity patterns are an important component of the decision–making process in determining appropriate antimicrobial therapy against bacterial infection ***(Peter et al., 1985)***.

The present study was planned to determine

- The incidence of mastitis in some dairy farms and in animals raised by individual owners,
- The association between the incidence of clinical mastitis and a number of predisposing factors,
- The association between the incidence of clinical mastitis and metritis,
- The type of microorganisms causing mastitis,
- The effect of dry cow therapy on the incidence of mastitis, cure rate and the prevalence of mastitis pathogens isolation.
- The effect of teat dipping on prevalence of mastitis pathogens isolation.
- The effect of food supplementation at dry period with vitamins on the incidence of mastitis and prevalence of mastitis pathogens isolation,
- The susceptibility pattern of aerobic bacterial pathogens isolated from clinical mastitis cases and trials for treatment.
- The clinical efficacy of lincospectin in treatment of clinical mastitis.