



شبكة المعلومات الجامعية

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شبكة المعلومات الجامعية

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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of
15-25- c and relative humidity 20-40%

بعض الوثائق الأصلية تالفة



بالرسالة صفحات لعم ترد بالاصل



Cairo University
Faculty of Veterinary Medicine
Department of Hygiene, Husbandry & Zoonoses

Epidemiological studies on tuberculosis in cattle and human contacts

**Thesis Presented
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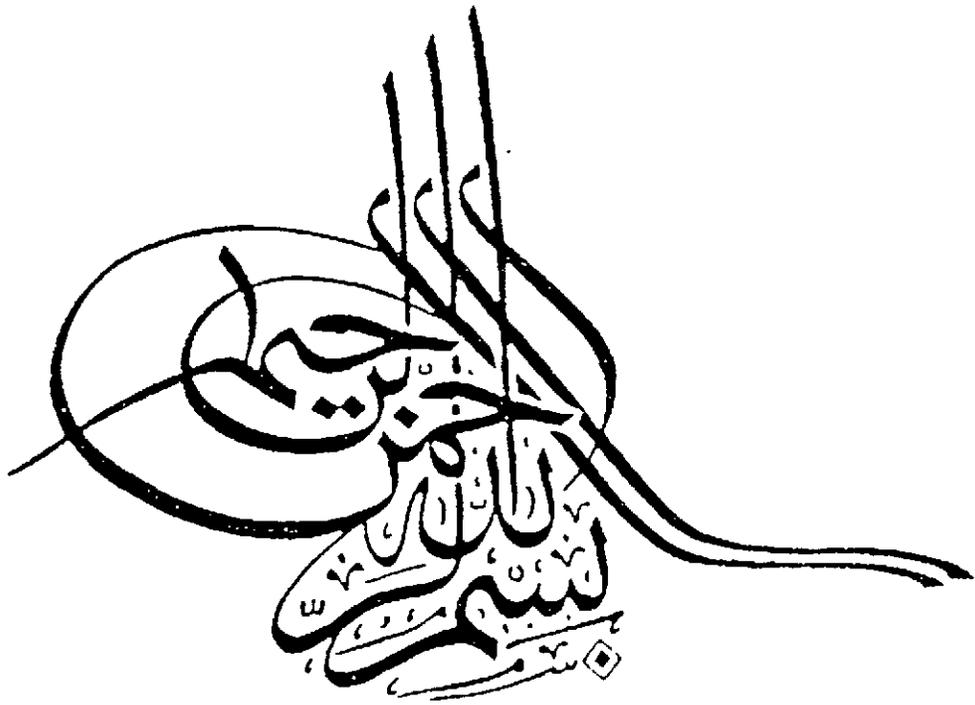
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بسم الله الرحمن الرحيم

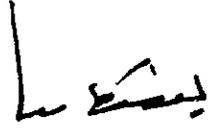
قرار لجنة الفحص و المناقشة

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لذلك

قررت اللجنة ترشيح السيد ط.ب محمد وحيد الدين عبد الغنى للحصول على درجة الماجستير في العلوم الطبية البيطرية (أمراض مشتركة)

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و المشرف على الرسالة

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Introduction

Introduction

Tuberculosis is an important zoonotic disease of world-wide distribution and with severe impact on public health . Actually , 1.7 billion people (1/3 World Population) are currently infected with tubercle bacillus . Eight million new TB cases are added annually to TB burden , half of them are infectious . Thirty million people are expected to die of tuberculosis within this decade i.e. four times AIDS mortality during the same period (Mobasher, 1994) . Globally , 3 million people are dying of tuberculosis annually . TB incidence is anticipated to increase to 12 million by 2005 because of population growth , low cure rate in TB control , TB and HIV co-epidemic and multidrug-resistance (Seita ,1994).

The main agent of zoonotic tuberculosis is *M. bovis* , where cattle is the main reservoir . Infection with *M. bovis* can cause clinical forms and pathological lesions indistinguishable from those caused by *M. tuberculosis*. Pulmonary as well as extrapulmonary cases of human tuberculosis of animal origin continue to be a public health problem in regions where the prevalence of bovine tuberculosis is still high and milk and its products are consumed without efficient heat treatment .

The high prevalence of bovine tuberculosis among the human population in Egypt is ascribed to the way of living of more than 20 million Egyptians at rural areas where both humans and farm animals live side by side in close contact (Guinidi et al.,1985) ; consumption of raw unpasteurized milk and its products ; non implementation of an eradication program for bovine tuberculosis ; and the insufficient extension service in the rural areas (Siam,1992) . Bovine tuberculosis was one of infections imported with the European cattle (GOVS,Egypt; 1985)

Direct losses due to this infection are attributed to decrease in milk and beef production , additional processing costs for tuberculous animals and condemnations at slaughter houses. Furthermore , purchasing markets for beef from infected countries will be restricted because importers always adhere to the epizootic status of the country issued regularly by the OIE . The following table (El-Taweel,1992) illustrates the economic losses (in LE) due to tuberculosis in cattle in the Egyptian abattoirs during the period 1986-1990.

**Economic losses due to tuberculosis in cattle in the Egyptian abattoirs
*(1986-1990) in Egyptian pounds(LE)(modified after El-Taweel,1992).**

Years	Localized lesions				Generalized lesions	Total
	Respiratory	Digestive	Head	Quarters		
1986	43460	11400	19250	89373	221000	387458
1987	37660	9200	16750	31850	157300	252760
1988	31600	6880	12150	41925	102700	195255
1989	31440	7000	15500	29900	106600	190440
1990	36960	11560	270800	37700	198900	555920
Total	181120	49040	334450	230748	786500	1581833

** Calculated in accordance with the prices in the Egyptian market.*

Although resources constraint limit the extensive use of test-and-slaughter policy in some developing countries yet , this approach is implemented in Egypt for the control of bovine tuberculosis . Tuberculin test is the most common one used for the diagnosis of mycobacteria infection in living animals . In Egypt , the human mammalian PPD is still the official tuberculin material used . However , many advances were made to improve the specificity of the tuberculin and to minimize the so-called non-specific reaction . Haagsma et al., 1982 ; Lepper and Corner ,1983 and McIlory et al., 1986 suggested the use of bovine PPD material in the diagnosis of bovine tuberculosis .

The present study is an attempt to investigate the following points :

- 1) Comparing the diagnostic value of human and bovine PPD tuberculins in the diagnosis of bovine tuberculosis in cattle.
- 2) Following up tuberculin reactors in a trial to isolate and identify mycobacteria using the appropriate mycobacterial tests.
- 3) Isolation of mycobacteria from human contacts.

Review of literature

Review of literature

For a better comprehensive understanding of the available literature pertaining to the subject of the present study it may be convenient to review them under the following topics.

- 1) Epidemiology and public health importance of bovine tuberculosis in man
- 2) Epizootology in cattle
 - a- Incidence and prevalence rate.
 - b- Mode of transmission, sources and reservoirs of infection and causes of re- infection in TB - free herds.
 - c- Susceptibility of cattle to mycobacteria other than M.bovis.
- 3) Diagnosis in cattle
 - Tuberculin test, post-slaughter examination and laboratory diagnosis
- 4) Control and eradication
 - Tuberculin and tuberculin test (test - and - slaughter policy)