ثبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومـــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

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

THE ROLE OF SOLUBLE INTERLEUKIN - 2 RECEPTORS IN PULMONARY TUBERCULOSIS IN DIABETIC PATIENTS

Thesis

Submitted in Partial Fulfillment For the Master Degree in chest diseases

by

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- 1997-

بسم الله الرحمن الرحيم

﴿وقل ربي زدني علما﴾

صدق الله العظيم

ACKNOWLEDGEMENT

I would like to take this opportunity to thank Dr. shaaban M. Ramadan, Assistant proffessor of chest disease, Minia university, for his valuable guidance, kind supervision and motivation to excel. realy, no wards can express my felling his effort to put this work in its best way.

I wish to express my special thanks to Dr.Amr M. Abdel wehab, assistant proffessor of Internal Medicine, Minia University, for his valuable directions, guidance and continous support during delivery of his work.

I wish also to express my special thanks to Dr. Hazem Abdel wahab, lecturer of microbiology, Minia university, for his great help guidance and valuable directions.

I would like to express many thanks to all my college who helped me in this research for their kind encouragment, guidance and advice.

DR. HALA ASHOUR
1997

TO MY

PARENTS

CONTENTS

INTRODUCTION

Introduction

Tuberculosis is the leading cause of death in the world today, it is the cause of about 7% of all deaths and about 26% of all preventable deaths in the world, most of these deaths occur among young adults.

The emergence of the HIV epidemic during the past decade has not only greatly exacerbated the T.B. problem, but has raised questions about the adequacy of current methods of diagnosis, treatment and prevention.

In addition the increasing occurance of multi drug resistant T.B., a highly lethal disease, especially among HIV- infected persons, has unmasked the deficiencies of current control methods and their application.

Diabetes mellitus is a chronic disease, the prevelance of which is probably between 2 and 4% with IDDM comprising 7 to 10% of all cases, the prevelance of IDDM is probably more accurate than the estimated for NIDDM, because of the relative ease of ascertainment and the fact that many patients with NIDDM are asymptomatic and the disease is undiagnosed. The prevelance of diabetes has been difficult to quantite accurately because the criteria for the diagnosis of NIDDM have varied from survey to survey over the years.

The prevelance of major - diabetes related complications serve to underscore the enormous impact of this disease.

REVIEW OF LITERATURE

Tuberculosis

Tuberculosis is a chronic infectious disease caused by mycobacteria of the tuberculosis complex, mainly mycobacterium tuberculosis. ***(Nardell,1993).***

Mycobacterium tuberculosis is estimated to kill at least 3 million people anually. an additional 4 to 5 million new smear - positive cases develop each year which in turn are infectious to others. some 5 million more active cases probably occur anually with negative sputum smears. ***(Ratcliffe, 1952)***.

In the last few years the number of new cases reported is increased though to be primarily related to the association of tuberculosis with the acquired immunodeficiency syndrome. (AIDS). ***(Roach, et al., 1993).***

Pathogenesis of tuberculosis:-

Since mycobacterium tuberculosis contains no enzymes that allow it to penterate mucous, the organism must be in a particle small enough < 5 μm to penterate to the alveolar zone, where no mucous is present. ***(Nardell, 1993).***

While for human the minimal infecting dose of M.tuberculosis is unknown, in animals one to three live organisms may be sufficient. These initial organisms will be ingested by alveolar macrophages since resident alveolar macrophages and non activated, recently arrived monocytes can not kill intracellular M.T., The organisms replicate within macrophages and rapidly increase in number. ***(Roach and Barton, 1993)*** .

During this period, before the development of specific immunity, the organisms will appear in draining lymph nodes. Subsequently, a bacteriia or hematogenous dissemination will occur. ***(Chan and Fan, 1991)*** .

After several weeks of uninhibited growth of M.T. an immune response develops that results in a cessation of bacillary growth. at the site of initial infection (primary infection) the organisms may be completely eliminated. However,at the sites of bacillary spread through hematogenous disemination, the organism may persist but with arrested growth months to years.Later, for reasons that are not entirely known, the organism may begin to grow more rapidly resulting in the development of symptomatic tuberculosis. ***(Kurodak and Brown,1993).***

Roach and Barton, (1993), found that lipoarabinomannan (LAM) is a major cell wall polysaccharide constituent that may act as a virulence factor by a number of documented interactions with the host immune system.

LAM from virulent M. tuberculosis differs from LAM from non pathogenic mycobacteria in its enhanced capacity to stinmulate production of tumour necrosis factor ∝ (TNF ∝) by mononuclear phagocytes. LAM Also inhibits the production of interferon - gamma (IFN ∝) and serves as a scavenger for oxygen free radicals among its other properities. ***(Orme, et al, 1992) .***

I mmunological aspects of tuberculosis:-

In great majority of tuberculosis cases, cell mediated immunity to M. tuberculosis and delayed type hypersensitivity to tuberculoproteins become evident within 2 to 4 weeks after infection. ***(Dannenberg, 1975).***

Mycobacteria are facultative intracellular parasites.During infection, they are found mainly in the body within cells of the mononuclear phagocyte series.Because of, their position within the cells and the peculiar waxy nature of their cell wall, they can not be eliminated from the