

**Study of Pulmonary Tuberculosis in
Type 2 Diabetes in Reference to Clinical,
Radiological Presentation and Response
to Treatment**

Thesis

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In Chest Diseases

By

Nermin Mohammed Samy El-Said Hussien
M.B.B.Ch

Supervised by

Prof. Mohammed Ali Farrag

Professor of Chest Diseases

Faculty of Medicine

Ain Shams University

Assist. Prof. Ibrahim Ali Dwedar

Assist. Professor of Chest Diseases

Faculty of Medicine

Ain Shams University

Faculty of Medicine

Ain Shams University

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

" رَبِّ أَوْزِعْنِي أَنْ أَشْكُرَ نِعْمَتَكَ الَّتِي أَنْعَمْتَ عَلَيَّ
وَعَلَى وَالِدَيَّ وَأَنْ أَعْمَلَ صَالِحًا تَرْضَاهُ وَأُوْخِذَنِي
بِرَحْمَتِكَ فِي عِبَادِكَ الصَّالِحِينَ "

صدق الله العظيم

النمل { ١٩ }



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List of Abbreviations

- AD:** Adenosine Deaminase.
- ADA:** American Diabetic society
- AECs:** airway epithelial cells
- AFB:** Acid-Fast Bacilli.
- AGEs:** Advanced glycation end products.
- Ags:** Antigen
- AIDS:** Acquired Immune Deficiency Syndrome
- ASL:** airway surface liquid
- ATS:** American Thoracic Society
- BCG:** Bacille Calmette-Guerin.
- BMI:** Body mass index
- BMM:** Broth Micro-Dilution Method.
- BTB:** bovine tuberculosis
- CBC:** complete blood picture
- CDC:** Centers for Disease Control & Prevention.
- CFT:** Complement Fixation Tests.
- CI:** Confidence Interval.
- CLRs:** C-type lectin receptors
- CVS:** cardiovascular disease
- DC:** dendritic cell
- DKA:** Diabetic ketoacidosis
- DM:** Diabetes mellitus

DMTB: Diabetes mellitus with TB

DNA: Deoxyribonucleic acid

DNA: Deoxyribonucleic Acid.

DOTS: Direct Observed Therapy Strategy.

DST: Drug susceptibility testing

E: Ethambutol.

EF: Efficiency.

ELISA: Enzyme-Linked Immuno-Sorbent Assay.

ELISPOT: Enzyme-Linked Immunospot.

EMB: Ethambutol

ESR: Erythrocyte sedimentation rate

FBG: Fasting blood glucose

FDA: Food and drug administration

GC: Growth Control

GDA: German Diabetes Association

GSH: L-Glutathione reduced form

GSSG: L-Glutathione oxidized form

HAT: Haemagglutination tests.

HbA1c: Hemoglobin A1c

HIV: Human Immunodeficiency Virus

HTN: Hypertension

IAPP: Insulin associated amyloid polypeptide

IFA: Immuno-Fluorescent assay.

IFG: Impaired fasting glycaemia

IGRA: Interferon release assay.

IL: interleukin

IM: Intramuscular.

INF : Interferon gamma.

INH: Isoniazide

iNOS: Inducible nitric oxide synthase

IV: Intravenous

LADA: Latent autoimmune diabetes of adult

LAM: lipo-arabino-manann

LAM: Lipoarabinomannan

LCR: Ligase chain reaction.

LiPA: Line Probe assay.

LJ: Lowenstein-Jensen.

Lzd: Linezolid.

M: Mycobacterium.

MAC: Mycobacteria avium-intracellulare complex.

MAIT: Mucosal-associated invariant T cells

MALDI-TOF MS: Matrix-assisted laser desorption/
ionization time-of-flight mass

MDR-TB: Multi-Drug-Resistant Tuberculosis.

MDR-TB: Multi-Drug-Resistant Tuberculosis.

MGIT: Mycobacterial Growth Indicator Tube

MOTT: Mycobacteria Other Than Tubercle bacilli.

MTB: Mycobacterium tuberculosis

MTBC: Mycobacterium tuberculosis

NAA: Nucleic acid amplification

NADPH: Nicotinamide adenine dinucleotide phosphate

NEFA: non-esterified fatty acids

NK: Natural killer

NOD2: Nucleotide-binding oligomerization domain-containing protein 2

NTM: Non tuberculous mycobacteria

NTM: Non Tuberculous Mycobacteria.

OGTT: oral glucose tolerance test

P: Pyrazinamide.

P-A: Postero-anterior.

PAD: Peripheral arterial disease

PAS: P-Amino Salicylic acid.

PBMCs: peripheral blood mononuclear cells

PCR: Polymerase Chain Reaction.

PPBG: Post prandial blood glucose

PPD: Purified Protein Derivative.

PPT: Post primary tuberculosis

PRR: Pathogen recognition receptor

PTB: Pulmonary tuberculosis

PZA: Pyrazinamide.

R: Rifampicin.

RBG: Random blood glucose

RFLP: Restriction Fragment Length Polymorphism

RIF: Rifampicin

RNA: Ribonucleic acid

RNS: Reactive nitrogen species

ROS: Reactive oxygen species

rRNA: Ribosomal RNA

S. aureus: Staphylococcus aureus

S: Streptomycin.

S: Svedberg unit

SCC: Short Course Chemotherapy.

SD: Standard Deviation

TB: Tuberculosis

TGF: Transforming growth factor

Th: T helper

TLR: Toll like receptor

TNF: Tumor necrosis factor

WHO: World Health Organization.

Z.N: Zhiel-Neelsen acid-fast stain

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