

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

: قال الله تعالى

اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ (1)

صدق الله العظيم

(سورة العلق الآية 1)

Dedication

I dedicate this research to

My Parents.....

Whom give me the meaning of the life

My brothers and sisters....

For their support and kindness

My friends and my colleagues.....

**The persons whom I love, respect
and appreciate.....**

Every one from whom I learned...

HANA

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Abstract

The present study aimed to investigate the current situation of pulmonary infections caused by *Nocardia* species. among human immunodeficiency virus (HIV) infected patients.

One hundred and seventy one serum specimens and 171 positive acid fast bacilli sputum specimens were collected from patients attending Abu Anja Hospital for Chest Diseases, El Shaab Teaching Hospital and the Reference Tuberculosis Laboratory in the National Health Laboratory, during the period from January to March 2010.

All serum specimens screened for the presence of HIV, Seventeen patients (9.9%) showed positive results, out of them twelve males and six females.

Two tubes of the Lowenstein- Jensen (LJ) media were inoculated with 20µl of the decontaminated sputum specimens. All cultures were incubated at 37° C for 8 weeks. Seven isolates (4%) showed rapid growth pattern within 2-3 days after inoculation, then subcultured on Glucose Yeast Extract Agar (GYEA). Further conventional methods suggested that all these isolates belonged to the genus *Nocardia*. Three (37.5%) of these seven isolates were obtained from patients who failed to respond to classical anti tuberculosis therapy, and (12%) of these seven isolates were obtain from HIV patients.

In conclusion, pulmonary nocardiosis represented a considerable ratio (4%) among patients with pulmonary infections and among HIV patients (12%) with pulmonary infections, thus a precise diagnosis is essential in order to start a proper chemotherapy.

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List of abbreviations

AFB	Acid Fast Bacilli
AIDS	Acquired Immune Defiancey Syndrome
C	Carbon Atom
CNS	Central Nerves System
DNA	Deoxyribonucleic Acid
GYES	Glucose Yeast Extract Agar
HCL	Hydrochloric Acid
HIV	Human Immune Defiancey Virus
ICT	Immune Chromatograph Test
LJ	Lowenstein- Jensen
MOTT	<i>Mycobacteria</i> Other Than Tuberculosis
MTB	<i>Mycobacterium tuberculosis</i>
NaOH	Sodium Hydroxide
ND	Not Detected
PCR	Polymerase chine reaction
rpm	round per minte
rRNA	ribosomal Ribonucleic Acid
TB	Tuberculosis
TLC	Thin layer Chromatography
ZN	Ziehl Neelsen
WHO	World Heath Organization