

Prevalence of upper respiratory tract fungal infections in HIV patients clinically symptomatic suspects for pulmonary *Mycobacterium tuberculosis* attending Kiwoko Hospital - Nakaseke District (Uganda)

Yusuf Muyingo, Bakayita Charles Bwanika and Emunyu Jude
Kiwoko Hospital, Uganda

Introduction: Fungal upper respiratory tract infections are a major cause of morbidity and mortality among HIV positive patients. However, due to similar clinical symptoms with *Mycobacterium tuberculosis* it has been a challenge to correctly diagnose upper respiratory tract fungal infections (URFIs) in HIV patients.

Objectives of the study: The study sought to determine the prevalence of the URFIs in HIV positive patients clinically symptomatic for pulmonary TB attending Kiwoko hospital with reference to sex, age group, and to understand its association with HIV co-infection.

Methodology: A cross sectional study on 138 subjects selected by simple random sampling was conducted. Their sputum samples quality was assessment for both macroscopic (Medical Research Council method) and microscopic (Bartlett scoring method) examinations followed by immediate Direct KOH smears, Gram's staining technique for the presence of hyphae and yeasts. Culturing was done on 5% Sheep Blood agar and Sabouraud's dextrose agar for screening characteristic colonies of fungal organisms including their texture. *Mycobacterium tuberculosis* results were directly obtained from gene expert data system.

Results: 30.4% of the participants were screened URFIs positive,

10.1% with *Mycobacterium tuberculosis*, 3.6% screened positive for both TB and URFIs and 6.5% with *Mycobacterium tuberculosis* only. 17.4 % females and 13.0 % males were screened positive for upper respiratory fungal infections, while 32.6% females and 37.0% males were screened as negatives. 2.2%, 3.6%, 13.8%, and 10.1% of the participants were screened positive for URFIs according to age groups 0-14, 15-24, 25-49, and ≥50 years respectively.


Conclusions: URFIs are clinically misdiagnosed as TB in HIV patients symptomatic for pulmonary *Mycobacterium tuberculosis*.

Recommendation: Fungal screening is co-currently performed with TB testing among HIV patients presenting with TB symptoms and ensuring that the community is sensitized on this.

Speaker Biography

Yusuf Muyingo has completed his diploma at the age of 29 years from Mildmay Institute of Health Sciences, Uganda. He is the director of Health Competence Implementers Uganda, Uganda. He looks forward publishing guide lecture notes in medical laboratory technology and practical guides and practical training sessions in the same field in Uganda to promote competence. Has been serving as a medical laboratory personnel of Kiwoko hospital since 06/ 2012. He has been contributing his effort in medical camps and awareness campaigns in Uganda.

e: yusufmuyingo564@gmail.com

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