

Rifampicin resistance among Mycobacterium Tuberculosis-infected individuals using genexpert MTB/RIF ultra: A hospital-based study

Kouemo Motse Dorgelesse Francine Antoinette
University of Douala, Cameroon

Introduction: Tuberculosis is a bacterial infection, spread through inhaling tiny droplets from the coughs, an infected person. It mainly affects the lungs; it's treated with the antibiotics. The aimed of his study was to determine the prevalence and risk factors associated with Rifampicin (RIF)-resistant tuberculosis using GeneXpert technology.

Methods: A cross-sectional study was conducted from April 2018 to November 2019 among Tuberculosis (TB)-infected Cameroonian patients in the Littoral Region using records from patients presenting with clinically suspected or documented TB. The patients were screened for TB using GeneXpert MDR/RIF ultra. Data were documented with an ad hoc survey form and analysed with SPSS version 22.

Results: 153 patients were included in the study. 64.1% were males; mean age was 37.9 ± 14.7 years and median age 37 years (range: 2–82). Most patients were new cases (76.4%). Relapses accounted for 8.5% and recurrences for 2.6%. Pulmonary TB was diagnosed among 98.7% patients using mostly sputum samples (85%). The prevalence of RIF resistance was 6.7% (95% CI: 3.4%–12.7%). This prevalence was significantly higher in samples of mucus and mucopurulent aspect (P-value=0.04). RIF-resistant *M. tuberculosis* strains were significantly more frequent among relapses than new cases (23.1% vs. 2.3% P-value<0.0001). A statistically significant association was found between GeneXpert-based quantification results and type and aspect of samples.

Conclusions: This study confirms the circulation of RIF-resistant *M. tuberculosis* strains in the Littoral region. There is a need for extensive studies in other parts of the country.

Biography

Kouemo Motse Dorgelesse Francine Antoinette is affiliated from Department of Medical Laboratory Sciences, Faculty of Health Sciences, University of Buea, SW Region, Cameroon.

Received: January 21, 2023; **Accepted:** January 23, 2023; **Published:** February 22, 2023
