



Abstract

Chronic Obstructive Pulmonary Disease (COPD) and Pulmonary Tuberculosis (PTB) carry a massive burden on the health of populations and healthcare resources worldwide particularly in under developed countries. The present work is concerned with the concomitant presence of Tuberculosis in COPD patients. In this context, the major contributory factors of COPD including age, gender, smoking history, occupational exposures and bacterial or *Candida* infections were analyzed. Furthermore, the impact of these factors to enhance the chances of TB co-morbidity in COPD was investigated. Sputum sample from COPD patient was collected following the WHO protocol and was stained with Gram stain to differentiate the bacterial species and ZN stain for acid fast bacillus. It was cultured on Blood, Chocolate and MacConkey agar. After decontamination it was also cultured on L.J medium and Mycobacterium Growth Indicator Tube (MGIT). The results indicated that out of 80 COPD patients, 6 (7.5%) were positive for tuberculosis. The disease was more prevalent in male patients with smoking history. The risk of this concomitance was increased in elderly patients. 5 positive patients were ≥ 50 years of age whereas 1 positive patient was < 50 years of age. The patients who had occupational exposure of dust and were working as manual labors had elevated risk of tuberculosis infection as compared to other occupations. The reliable sputum sample with a good consistency also proved to effect MGIT results. MGIT, however, was a more sensitive technique to detect the presence of mycobacterium as compared to LJ.