

Medium- long-term post-tuberculosis sequelae burden and health-related quality of life in sub-Saharan Africa

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Background

There is still limited information on the mid-long-term burden of post-tuberculosis lung disease (PTLD) and its effect on quality of life. The Post-TB SIQ study (ANRS405s), assessed the medium- long-term burden and health-related quality of life (HRQoL) in sub-Saharan Africa.

Methods

Former clinical trial adults (≥ 18 years) in Benin, Guinea and Uganda were contacted 2-20 years after TB cure and invited for a comprehensive evaluation for PTLD. We conducted clinical assessment, spirometry, six-minute walk test, chest X-ray, and administered the St George Respiratory Questionnaire (SGRQ) and the 36-item Short Form Health Survey (SF-36) for HRQoL assessment. A chest high resolution computed tomography (CT) scan was done for participants with clinical suspicion of bronchiectasis. We used the consensus definition of PTLD (according to GLI 2022 standards): presence of pulmonary functional impairment on spirometry and/or the presence of symptomatic bronchiectasis. Characteristics between PTLD and non-PTLD were compared using Chi-squared, Wilcoxon rank sum or Fisher's exact tests depending of the type of variable.

Results

A total of 600 participants were included. The median delay between TB cure to evaluation were 11.1 years, 204 (35%) participants were living with HIV and 72 (12%) presented a dyspnea scale ≥ 2 . Of the 551 participants that underwent spirometry, the patterns were: 45% (250/551) normal, 21% (118/551) obstruction, 25% (138/551) restriction and 8% (45/551) mixed. Symptomatic bronchiectasis was diagnosed in 14% (84/598) participants. The proportion of PTLD was 57% (339/600). PTLD patients were more likely to have lower BMI, recent history of hemoptysis, poorer exercise tolerance, higher proportion of cough and abnormal chest X-ray, and poor HRQoL (Table). About 34% (116/339) with PTLD had $FEV_1 < -2.5$ zscore.

Conclusion

PTLD, 2-20 years after TB treatment is highly common in sub-Saharan Africa. A poor HRQoL in people with past-TB treatment history is more prominent among those with PTLD.

There is still limited information on the mid to long term burden of post-tuberculosis lung disease (PTLD) and its effect on quality of life. Our study showed that PTLD, 2-20 years after TB treatment is highly common in sub-Saharan Africa and associated with a poor quality of life.