



Tuberculosis and COVID-19 co-infection: description of the global cohort

The TB/COVID-19 Global Study Group

The complete list of contributors of the TB/COVID-19 Global Study Group is provided in the Acknowledgements section

Corresponding author: Giovanni Battista Migliori (giovannibattista.migliori@fsm.it)



Shareable abstract (@ERSpublications)

High mortality (11%) was observed with COVID-19/TB co-infection associated with older age, male gender and invasive ventilation. Efforts to avoid SARS-CoV-2 infection in TB patients are recommended to prevent excess morbidity and mortality. <https://bit.ly/3mSylCK>

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Abstract

Background Information on tuberculosis (TB) and coronavirus disease 2019 (COVID-19) is still limited. The aim of this study was to describe the features of the TB/COVID-19 co-infected individuals from a prospective, anonymised, multicountry register-based cohort with special focus on the determinants of mortality and other outcomes.

Methods We enrolled all patients of any age with either active TB or previous TB and COVID-19. 172 centres from 34 countries provided individual data on 767 TB-COVID-19 co-infected patients, (>50% population-based).

Results Of 767 patients, 553 (74.0%) out of 747 had TB before COVID-19 (including 234 out of 747 with previous TB), 71 (9.5%) out of 747 had COVID-19 first and 123 (16.5%) out of 747 had both diseases diagnosed within the same week (n=35 (4.6%) on the same day). 85 (11.08%) out of 767 patients died (41 (14.2%) out of 289 in Europe and 44 (9.2%) out of 478 outside Europe; p=0.03): 42 (49.4%) from COVID-19, 31 (36.5%) from COVID-19 and TB, one (1.2%) from TB and 11 from other causes. In the univariate analysis on mortality the following variables reached statistical significance: age, male gender, having more than one comorbidity, diabetes mellitus, cardiovascular disease, chronic respiratory disease, chronic renal disease, presence of key symptoms, invasive ventilation and hospitalisation due to COVID-19. The final multivariable logistic regression model included age, male gender and invasive ventilation as independent contributors to mortality.

Conclusion The data suggest that TB and COVID-19 are a “cursed duet” and need immediate attention. TB should be considered a risk factor for severe COVID disease and patients with TB should be prioritised for COVID-19 preventative efforts, including vaccination.

