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GLOBAL TUBERCULOSIS NETWORK AND TB/COVID-19 GLOBAL STUDY GROUP

Long-term outcomes of the global tuberculosis and COVID-19 co-infection cohort

Global Tuberculosis Network and TB/COVID-19 Global Study Group

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Shareable abstract (@ERSpublications)
In 778 TB/COVID-19 co-infected patients, 77% TB treatment success and 11% TB mortality was observed, with 71% recovering from COVID-19 and 13% COVID-19-associated mortality. Mortality was higher in those diagnosed with COVID-19 before/during TB treatment. https://bit.ly/3PQSw17

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Abstract

Background Longitudinal cohort data of patients with tuberculosis (TB) and coronavirus disease 2019 (COVID-19) are lacking. In our global study, we describe long-term outcomes of patients affected by TB and COVID-19.

Methods We collected data from 174 centres in 31 countries on all patients affected by COVID-19 and TB between 1 March 2020 and 30 September 2022. Patients were followed-up until cure, death or end of cohort time. All patients had TB and COVID-19; for analysis purposes, deaths were attributed to TB, COVID-19 or both. Survival analysis was performed using Cox proportional risk-regression models, and the log-rank test was used to compare survival and mortality attributed to TB, COVID-19 or both.

Results Overall, 788 patients with COVID-19 and TB (active or sequelae) were recruited from 31 countries, and 10.8% (n=85) died during the observation period. Survival was significantly lower among patients whose death was attributed to TB and COVID-19 *versus* those dying because of either TB or COVID-19 alone ($p<0.001$). Significant adjusted risk factors for TB mortality were higher age (hazard ratio (HR) 1.05, 95% CI 1.03–1.07), HIV infection (HR 2.29, 95% CI 1.02–5.16) and invasive ventilation (HR 4.28, 95% CI 2.34–7.83). For COVID-19 mortality, the adjusted risks were higher age (HR 1.03, 95% CI 1.02–1.04), male sex (HR 2.21, 95% CI 1.24–3.91), oxygen requirement (HR 7.93, 95% CI 3.44–18.26) and invasive ventilation (HR 2.19, 95% CI 1.36–3.53).

Conclusions In our global cohort, death was the outcome in >10% of patients with TB and COVID-19. A range of demographic and clinical predictors are associated with adverse outcomes.