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Mini-review

Association between COVID-19 infection and mediastinal lymphadenopathy: A systematic review and meta-analysis

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COVID-19 is a progressive viral disease that caused a significant morbidity and mortality worldwide. Typically, patients with COVID-19 infection present with clinical manifestations such as dyspnea, cough, fatigue, respiratory failure, and mediastinal lymphadenopathy. An increase in the size of mediastinal lymph nodes, called mediastinal lymphadenopathy is a common finding in COVID-infected individuals. In the present study, we aimed to review whether mediastinal lymphadenopathy is a typical or atypical feature in individuals suffering from COVID-19 infection. PubMed database was reviewed and a total of 25 articles with 4305 patients were included in the analysis. Bayesian hierarchical models were used to estimate the pooled proportion and risk difference. The incidence of mediastinal lymphadenopathy was found to be 12.62%. Furthermore, the mortality rate was found to be significantly higher in patients with mediastinal lymphadenopathy compared to those without mediastinal lymphadenopathy (35.3% vs. 9.4%; $P < 0.001$), suggesting severity of the condition. Furthermore, the risk difference for mortality and the overall effect were found to be significant ($Z = 3.33$; $P = 0.0009$). Conclusively, data suggest that mediastinal lymphadenopathy is associated with increased mortality in COVID-19 patients; however, it is an atypical feature of COVID-19 due to its lower incidence rate.

Keywords: Chest tomography, Corona virus, ICU admission, Mortality, Incidence rate