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Autopsy findings in COVID-19 infection-related death: a systematic review

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Abstract

Introduction: Coronavirus-19 disease (COVID-19) has been declared as pandemic by the World Health Organization (WHO) in March 2020. As of 28 November 2021, there were more than 260 million cases and nearly 5.2 million deaths caused by COVID-19. The most affected system by COVID-19 infection was the respiratory system although several other studies suggested multi-organ involvement with pathophysiology that was not clearly understood. Autopsy findings were beneficial to researchers to determine the mechanism behind these organ failures. The objective of this review was to summarize the autopsy findings related to COVID-19 death. **Method:** Online literature search was conducted via online databases such as Scopus, PubMed and Google Scholar. The keywords inputted during the search were "post-mortem", "autopsy" and "COVID-19" in title, abstract and keywords. The inclusion criteria were the topic related with the title of this review, published in 2020–2021, have full text available and in English language. Any articles that were not related, duplicated studies, review articles including systematic review and meta-analysis and in other languages were excluded. **Results:** A total of 20 articles were included in this review. The articles reviewed were mostly case reports and case series while others were case-control and cohort study ranging from one to 348 cases. Majority were originated from the United States of America (USA). **Conclusion:** The most frequent system described in autopsy findings in COVID-19 death was the respiratory system, with the most common histological finding of diffuse alveolar damage (DAD). Majority of the findings of other organs were related to chronic diseases. © 2022, The Author(s).

Author Keywords

Autopsy; COVID-19; Death; Post-mortem

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