

## Researchers establish a profile of the COVID-19 deceased based on the analysis of 140 cases of complete autopsies

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Men aged between 60 and 77 with Diffuse Alveolar Damage (DAD)—acute lung injury—in proliferative phase. This is the most frequent profile of the deceased from COVID-19, as identified by researchers of the Department of Legal and Forensic Medicine of the University of Malaga after analyzing 140 cases of complete autopsies.



Moreover, the scientists of the UMA establish that these patients usually show associated conditions such as vascular disease, <u>heart disease</u> and diabetes, and point out that the deceased with this pattern died significantly in a shorter period of time.

"It is the first time that the injuries found in an <u>autopsy</u> and the comorbidities presented by a patient—conditions other than the primary disease—are associated with the likelihood of quicker death," says Jaime Martín, scientist at the Faculty of Medicine, and one of the authors of this paper, which findings have been published in the journal *Current Medical Research and Opinion*.

Likewise, this team of scientists of the Legal Medicine, Toxicology and Forensic Dentistry Group, also members of IBIMA-Plataforma BIONAND, reveal that, following the lung, the kidney is the second most affected organ, showing injuries such as thrombosis and tubular damage.

## New strategies to reduce mortality

Researchers note the important role of autopsies and their findings to determine the cause of death, as they allow knowing its physiopathology, as well as to establish effective treatment strategies that reduce mortality.

"They should be a key element to understand any <u>disease</u>, but especially in newly emerged diseases like COVID-19," they say. However, they warn that autopsies of the coronavirus deceased are neither performed in depth nor sufficiently studied.

## Systematic review



In order to carry out this research, the scientists performed a <u>systematic</u> <u>review</u> of complete autopsy cases of <u>death</u> caused by COVID-19 existing in the literature, excluding incomplete studies, duplicate cases or autopsies with incidental diagnosis of COVID-19, among other aspects. The initial search strategy retrieved 1282 cases, of which, finally, 140 (92 men and 48 women) were analyzed.

Addressing the consequences of SARS-CoV-2 infection in different organs, for example, the kidney or the heart, based on a greater number of autopsies that include macroscopic and microscopic results is the new goal of this research team, which also has the researchers of the UMA Stella Martín, Leticia Rubio, Fernando Martín and Juan Suárez among its members.

**More information:** Jaime Martín-Martín et al, Comorbidities and autopsy findings of COVID-19 deaths and their association with time to death: a systematic review and meta-analysis, *Current Medical Research and Opinion* (2022). DOI: 10.1080/03007995.2022.2050110

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