



## COUPE DE GRACE: AUTOPSY IN COVID-19 PANDEMIC

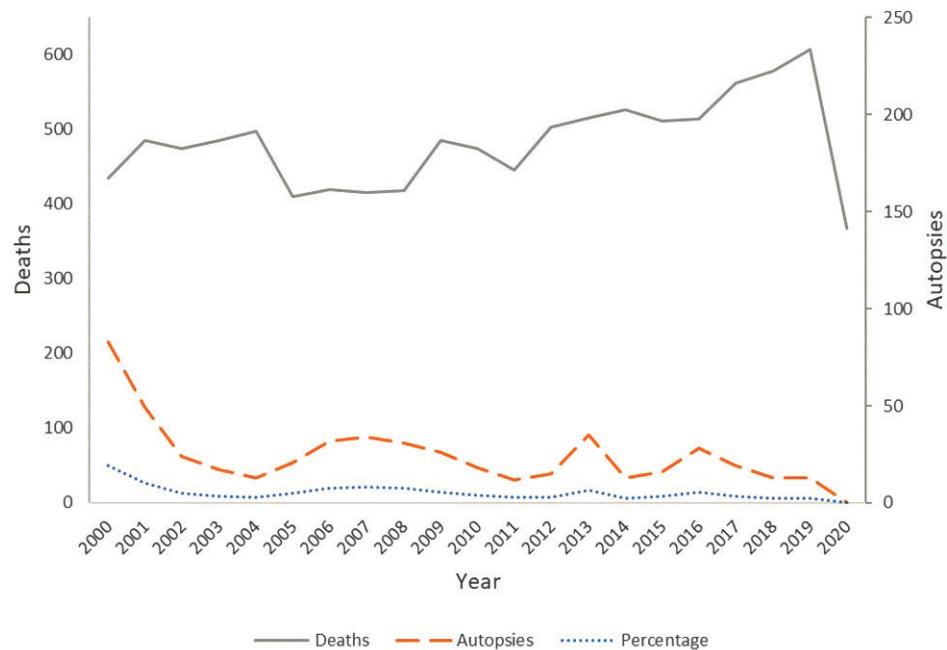
As the media informed the spread of a highly transmissible disease, our medical community faced the disappearance of a languishing ancient tool. Traditionally helping to explain unexplainable death, educate, audit, warn relatives, or contacts; autopsies vanished in a reassigned COVID-19 teaching hospital (Fig. 1).

Autopsies engendered pathology to clarify the causes of sign and symptoms on human death. This medical specialty evolved through centuries into subdisciplines, bringing pathologists to the forefront of medical care. Perceived as modern and more rewarding than postmortem anatomic pathology, these new pathology fields have grown and crowded the agenda, providing extensive, detailed information that translate to

reliable diagnoses. The astonishing development of the pathology specialty could have been the happy ending to human disease, if not for the fallout faced these days. After > 378,000 COVID-19-related deaths worldwide, only 31 complete autopsies have been reported<sup>1-3</sup>.

Not only medicine without autopsies is the theme played after SARS-CoV-2. The situation resembles an old classroom exercise: “imagine medicine without pathology,” a playful strategy of “old-fashioned” teachers. Reconverted hospitals for COVID-19 care, suddenly lack specimens to diagnose and teach pathology residents. Today, care and treatment decisions are made in a different turf where pathological

Figure 1. Death and autopsy rate in a teaching hospital in Mexico City. Protracted decline (19%-2%) with random peaks is observed from 2000 to 2019. Because of the lack of biosecurity level 3 postmortem areas, no autopsies have been performed this year.





findings are dismissed or nonexistent, and the only real concern is safely handle and deliver the deceased to their families.

Notwithstanding so many deaths from COVID-19, some clinicians confess their blindness and request for anatomo-clinical correlations. To address this need, pathologists once personal protection equipment obtained, look for safe facilities to perform autopsies, but a glimpse of reality shows none: most autopsy rooms are insecure/obsolete<sup>4</sup>. Every physician, hospital, and health administrator should remember that once performed, autopsies unveil relevant unsuspected findings in more than 2 out of 10 hospitalized patients, even when deaths occur in high-tech intensive care units<sup>5</sup>.

With the storm of proposed hypothesis awaiting for confirmation on SARS-CoV-2/human interaction,

complete medical autopsies are mandatory to sample and preserve specimens for in-depth research in all biomedical fields. For medical care, autopsies represent certainty on cause of death, identification, and contribution of comorbidities and, a tool to identify if treatment results are consistent with the objectives of clinical research protocols. It is a necessary procedure for fine tuning and teaching medicine in the post-COVID-19 era.

Pathology leaders need to embrace new biosafety standards in the short term, quickly invest, and reorganize autopsy and grossing areas to deal with this and other emerging transmissible agents. This is a difficult endeavor since sanitary and economic crises are found together in hospitals. In the meantime, while waiting for the call of the on-duty stretcher-bearer, we share our thoughts and vision of a new perspective in our laboratories and role.

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