

The State of Cytopathology Laboratories During the COVID-19 Pandemic

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The coronavirus disease 2019 (COVID-19) pandemic, caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), continues to wreak havoc on human populations around the world.^{1,2} As this editorial is being written, there are a total of 50.1 million cases of COVID-19 worldwide and greater than 1.25 million deaths related to the disease. In the United States alone, which has the highest number of COVID-19 cases, the death toll already has surpassed 238,000 cases. Hospitals in countries throughout the world have struggled to respond to the needs of their communities, and the impact of the pandemic has been felt in nearly all areas of the hospital. This also is true in cytopathology laboratories, in which many facets, including specimen workflow, laboratory staffing, biosafety protocols, resident training, and laboratory finances, have been significantly affected.

This month's issue of *Cancer Cytopathology* includes several original articles, commentaries, and correspondence describing a wide range of topics related to the effects of the COVID-19 pandemic on the field of cytopathology. In particular, the journal features 2 large, multi-institution studies investigating the effects of the COVID-19 pandemic on the function of cytopathology laboratories around the world.^{3,4} Vigliar et al have presented their study describing an astounding 45.3% decrease in the number of cytology specimens during the peak of the pandemic compared with before the pandemic.³ Just as overall cytology caseloads were decreasing, the authors observed a modest increase in the rate of nongynecologic samples classified as "malignant," presumably reflecting a shift in cytology samples toward those from patients who were considered to have more life-threatening disease, especially critical cases of cancer.

In their study, Wang et al have reported results from 167 laboratories in 24 Asian countries.⁴ Their investigation focused on the implementation of new biosafety protocols in cytology laboratories to address the potential risks to cytology practitioners through exposure to patient specimens during sample preparation and processing.⁴ In addition, the study by Wang et al described modifications to the structures of the laboratory workforce, and changes in cytopathology specimen volumes and laboratory workflows. Similar to the study by Vigliar et al,³ Wang et al⁴ also observed a reduction in cytology specimen volumes, although to a lesser degree than in the study by Vigliar et al. It remains to be seen how the COVID-19 pandemic will affect various aspects of cytopathology laboratories as we move into 2021 among fears of a second surge in infections, but hopes are high for the development and distribution of an effective vaccine to bring some stability to the situation. In the interim, laboratories worldwide are publishing and sharing their experiences and, through a global effort, appear poised to meet the challenges that lie ahead.

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