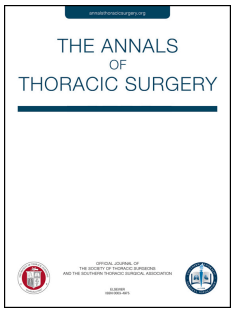
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.



Is There a Sars-Cov-2 Silver Lining? Using the Data Beyond the Pandemic

Keith A. Horvath, MD

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Is There a Sars-Cov-2 Silver Lining? Using the Data Beyond the Pandemic

Invited Commentary:

The waves of Sars-Cov-2/Covid variants that wrecked global havoc are slowly losing their virulence and in the wake several important early observations have been made. If we remain observant many more over the upcoming years will follow. While the early focus of these reports has appropriately been on identifying those most at risk and the treatments most beneficial, this worldwide exposure to a serious inciter of inflammation may provide many new insights. The European multi-center study by Spadaccio and colleagues [1] has described the impact of Covid on cardiac surgery patients. Most importantly it has done so over the multiple surges in the midst of the pandemic. Certainly there are a number of Covid related questions that will likely arise in the readers' mind. What was the vaccination status of each patient? The variants carried different levels of morbidity and mortality, were this variant related differences seen postoperatively? Did symptomatic patients fare worse than the asymptomatic? Admittedly the care at these widespread and numerous sites was varied, both with regard to Covid treatment and cardiac surgery. That may be a strength rather than a limitation as it truly reflects the reality. Additionally while the reality of the pandemic will continue to fade, the precise best methods for treating Covid patients will also become less critical. The main finding of this paper relates to the morbidity and mortality that Covid wrought on patients following cardiac surgery when it was diagnosed soon after the operation (within 7 days) or late (after 7 days) regardless of Covid type symptoms. Complications can begat complications and a widespread inflammatory response, as engendered by a virus, soon after a major inflammatory trigger like cardiac surgery (especially with the addition of cardiopulmonary bypass) can be quite deleterious as the authors' note.

All the Covid specific questions and issues aside, what can we learn about the survivors vs. the non-survivors that may help our understanding of the systemic response to disruptive inflammatory insults and how can we ameliorate those responses to lessen the impact? Historically many non-specific approaches, such as steroids, have not proven ideal and may carry additional risk. As a result of the pandemic we have been provided a (hopefully) once in a lifetime opportunity to look at the outcomes of large cohorts of patients that have suffered either multiple SIRS events (Covid plus surgery) or significant delays in care (Covid postponed surgery) or both. Why did some patients fare better than others? Practices, institutions, national and international registries should work on answering these questions.

Keith A. Horvath, MD

Association of American Medical Colleges

Health Care Affairs

655 K St. NW

Washington, DC 20001

Email: khorvath@aamc.org

Reference:

[1] Spadaccio C, Rose D, Candura D, et al. Effect of hospital-associated Sars-Cov-2 infections in cardiac surgery. A multicenter study. Ann Thorac Surg 2022; in press.