See Article page 50 in the December 2020 issue.

Commentary: Surgical emergencies don't quarantine

N. Bryce Robinson, MD, and Mario Gaudino, MD

We read this short communication by Professor Davide Pacini and colleagues¹ with great interest. The authors summarize their experience with acute type A aortic dissection (ATAAD) as 1 of the 4 cardiac surgery “hub” centers during the height of the coronavirus disease 2019 (COVID-19) pandemic in Bologna, Italy. It comes as no surprise that surgical volumes fell during the study period by an estimated 30% when compared with 2019 volumes. Perhaps more concerning is that during the acute lockdown in March, only 2 patients presented with ATAAD, compared with 10 in April toward the end of the lockdown. As the authors suggest, this is likely secondary to the fear patients had of leaving their homes or interacting with the health care system, especially in the absence of companions as visitation was prohibited during the lockdown. Furthermore, of the 10 patients who presented in April, 60% had signs of malperfusion again suggesting a delay in presentation, with 3 patients dying before surgical repair. The mean time from symptom onset to evaluation was 10.3 hours, more than double the rate reported in the literature.² The authors are to be commended on their excellent outcomes in the patients who underwent successful operative repair in unprecedented circumstances.

Similar to Italy, New York City was impacted by the COVID-19 pandemic at levels not seen in other areas of the world. As of October 2020, the New York metropolitan area has recorded 250,970 COVID-19 cases with 58,580 associated hospitalizations and 19,309 confirmed deaths.³ In line with the current report, a 76.5% decline in ATAAD

N. Bryce Robinson, MD, and Mario Gaudino, MD

CENTRAL MESSAGE

As the COVID-19 pandemic continues to impact countries worldwide, strategies must be developed to allow for continued care of patients who present with other emergent pathologies.

was noted in New York between March and April when compared with January and February of the same year (12.8 ± 4.6 cases/month pre-COVID-19 vs 3.0 ± 1.0 cases/month post-COVID-19, $P = .007$). Simultaneously, an 8- to 10-fold increase in at home deaths was observed.⁴ While one can only speculate, it is likely that these 2 findings correlate for similar reasons, namely patient apprehension and fear as well as a health care system pushed to the limits of its capacity.

This report highlights an unavoidable truth—surgical emergencies do not quarantine. When not corrected surgically, ATAAD is associated with a 60% 30-day mortality.⁵ Furthermore, delayed presentation is associated with worse outcomes, with a 1% to 2% increase in mortality per hour from symptom onset.⁶ Therefore, rapid recognition, diagnosis, and treatment is paramount. The barriers described by the patients in this report are important to address. As COVID-19 continues to have a significant impact throughout the world, it is imperative that we urgently develop strategies to maintain a safe and efficient health care network capable of providing expeditious care.

References

1. Murana G, Folesani G, Botta L, Di Marco L, Leone A, Loforte A, et al. The effect of the coronavirus disease 2019 lockdown on type A acute aortic dissection: insights from Bologna. *J Thorac Cardiovasc Surg Tech*. 2020;4:50-4.
2. Harris KM, Strauss CE, Eagle KA, Hirsch AT, Isselbacher EM, Tsai TT, et al. Correlates of delayed recognition and treatment of acute type A aortic dissection: the International Registry of Acute Aortic Dissection (IRAD). *Circulation*. 2011;124:1911-8.
3. COVID-19: data main - NYC health. Available at: <https://www1.nyc.gov/site/doh/covid/covid-19-data.page>. Accessed October 23, 2020.

From the Department of Cardiothoracic Surgery, Weill Cornell Medicine, New York, NY.

Disclosures: The authors reported no conflicts of interest.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

Received for publication Oct 23, 2020; revisions received Oct 23, 2020; accepted for publication Oct 28, 2020; available ahead of print Nov 24, 2020.

Address for reprints: Mario Gaudino, MD, Department of Cardiothoracic Surgery, Weill Cornell Medicine, 525 E 68th St, New York, NY 10065 (E-mail: mfg9004@med.cornell.edu).

JTCVS Techniques 2021;5:10-1

2666-2507

Copyright © 2020 The Authors. Published by Elsevier Inc. on behalf of The American Association for Thoracic Surgery. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

<https://doi.org/10.1016/j.jtc.2020.10.048>

4. El-Hamamsy I, Brinster DR, DeRose JJ, Girardi LN, Hisamoto K, Imam MN, et al. The COVID-19 pandemic and acute aortic dissections in New York. *J Am Coll Cardiol*. 2020;76:227-9.
5. Hagan PG, Nienaber CA, Isselbacher EM, Bruckman D, Karavite DJ, Russman PL, et al. The International Registry of Acute Aortic Dissection (IRAD): new insights into an old disease. *JAMA*. 2000;283:897.
6. Hiratzka LF, Bakris GL, Beckman JA, Bersin RM, Carr VF, Casey DE Jr, et al. 2010 ACCF/AHA/AATS/ACR/ASA/SCA/SCAI/SIR/STS/SVM guidelines for

the diagnosis and management of patients with thoracic aortic disease: a report of the American College of Cardiology Foundation/American Heart Association task force on practice guidelines, American Association for Thoracic Surgery, American College of Radiology, American Stroke Association, Society of Cardiovascular Anesthesiologists, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, Society of Thoracic Surgeons, and Society for Vascular Medicine. *Circulation*. 2010;121:e266-369.