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.

Southwest Finland and the ethics committee of the National Institute for Health and Welfare.

Overall, 3,073 CVs in 1,790 patients with no periprocedural OAC were included in the current analysis. The CHA_2DS_2-VASc score was 0 in 54.6% (n = 1,678) and 1 in 45.4% (n = 1,395) patients. Hypertension accounted for the CHA_2DS_2-VASc point in 60.9% (n = 850), age (65 to 74 years) in 19.9% (n = 278), vascular disease in 15.6% (n = 218), heart failure in 1.79% (n = 25), and diabetes in 1.72% (n = 24) of patients. A definite SSE occurred in 11 patients (8 ischemic strokes and 3 peripheral emboli) within 30 days from CV. The median age at the time of the CV was 60 years (interquartile range: 51 to 64 years) in patients with an SSE and 56 years (interquartile range: 48 to 61 years) in those without SSE. The incidence of SSE was 0.14% (n = 2; 95% confidence interval: 0.04 to 0.49) in patients cardioverted within 12 h from AF onset (n = 1,478) and 0.56% (n = 9; 95% confidence interval: 0.30% to 1.11%) in those cardioverted within 12 to 48 h (n = 1,595) (p = 0.067, 2-sided Fisher test).

Our study shows that CV performed within 12 h from AF onset is associated with a very low risk of SSE in nonanticoagulated patients with 0 or 1 CHA_2DS_2-VASc score points. Our results, however, should be interpreted cautiously in patients with diabetes or heart failure, which are strong predictors of SSE after CV (4), because heart failure and diabetes were rare in these low-risk patients. To put the risk level in perspective, the risk of adverse events (composite of stroke, systemic embolism, and major bleed) associated with CV performed during direct oral anticoagulant therapy ranges from 0.40% to 0.60% according to randomized trials (**Figure 1**) (5). The risk of major bleeds during the initiation phase of OAC therapy is not negligible, even in patients at low risk, and it can be avoided by refraining from short-term OAC.

In conclusion, our analyses from the large and comprehensive FinCV dataset are in line with the AHA/ACC/HRS guideline recommendation. Performing CV without OAC in patients with CHA_2DS_2-VASc of <2 and AF duration of <12 h carries a low risk of SSE without the inherent bleeding risk associated with OAC. In view of the known early development of prothrombotic changes after arrhythmia onset, it seems reasonable to proceed to CV as early as possible in patients without OAC.

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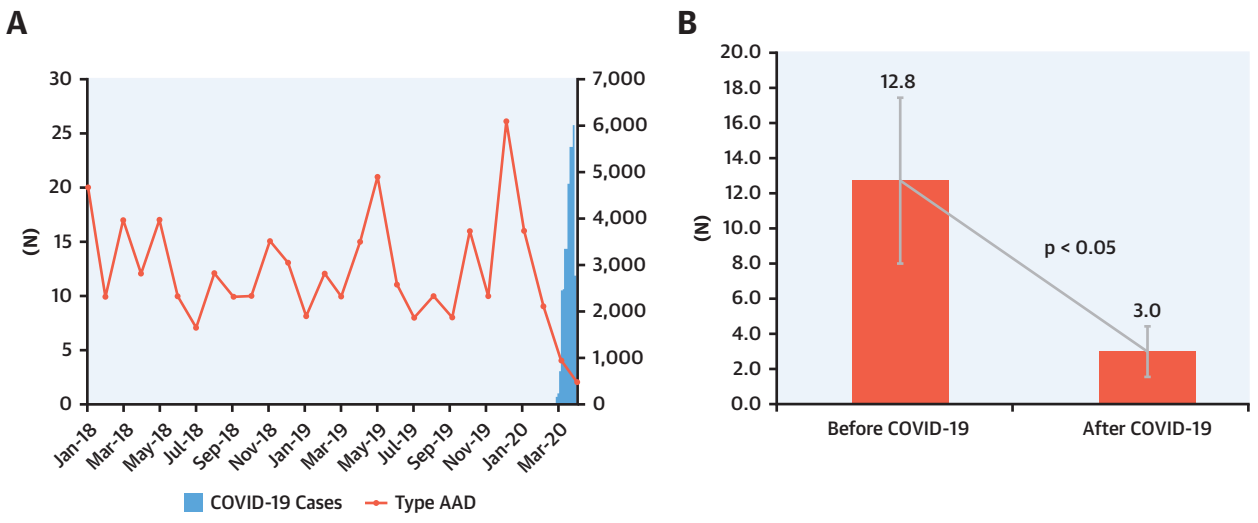
The COVID-19 Pandemic and Acute Aortic Dissections in New York

A Matter of Public Health

As of April 15, 2020, the number of confirmed coronavirus disease-2019 (COVID-19) cases in New York City (NYC) was >110,000, thus making it the global epicenter of the pandemic (1). This rapid surge in the number of cases imposed a major burden on all hospitals in NYC, as well as causing significant stress in emergency departments (EDs). In addition, public health messages promoting social distancing and news reports focusing on the death toll associated with COVID-19 have created a sense of generalized anxiety in society. Changes in the observed incidence of acute cardiovascular conditions have been anecdotally reported, including the occurrence of ST-segment elevation myocardial infarctions (2). Incidentally, the number of at-home deaths in NYC has reached an 8- to 10-fold increase compared

FIGURE 1 Trend of Type A Repair Volume



(A) Variation in monthly volumes of surgically treated acute type A aortic dissections (AAD) **(red line, left vertical axis)** and coronavirus disease-2019 (COVID-19) cases **(blue bar, right vertical axis)** in New York City from January 1, 2018 to April 15, 2020. **(B)** Decrease in average monthly volumes before and after COVID-19 ($p < 0.05$).

with the same time period in 2019, thereby raising concerns about the impact of the pandemic on non-COVID-related health conditions.

Acute type A aortic dissection is a life-threatening condition for which the only effective treatment requires surgical intervention, and the portal to initial diagnosis is invariably the ED. In the absence of emergency surgical intervention, 30-day mortality after acute type A aortic dissection ranges from 50% to 60% (2). The COVID-19 crisis has created additional challenges in EDs, such as more layers of screening through pre-ED triage and registration, reduced individual patient attention, rationing of timely computed tomography scanning, and confusion of atypical symptoms of type A aortic dissection with common COVID-19 presentations.

To investigate the impact of the COVID-19 pandemic on the incidence of acute type A aortic dissections, we compiled data from all hospitals and health systems providing cardiac surgery in NYC (N = 11). This approach allowed us to capture all cases of surgical repair of acute type A aortic dissections from January 1, 2018 to April 15, 2020. No change in the management of acute type A aortic dissection was reported by any of the centers. All patients with acute type A aortic dissection in NYC underwent emergency open repair. Univariable linear regression was used to calculate the estimated decrease in monthly procedural volumes between the before-COVID-19 and after-COVID-19 periods. The cutoff between before and after COVID-19 was March 1, 2020, corresponding to the first reported case in NYC. Because this study includes no protected health information, Columbia University's Institutional Review Board advised that this study was exempt from Institutional Review Board submission.

There was a significant and precipitous drop in the monthly surgical case volume of acute type A aortic dissection from 12.8 ± 4.6 cases/month before COVID-19 to 3.0 ±1.0 cases/month after COVID-19; this change represented a 76.5% decrease in volume (**Figures 1A and 1B**). This decline was statistically significant by regression analysis (9.8; 95% confidence interval: 2.95 to 16.67; p = 0.007). Low volumes in 2 consecutive months (March and April 2020) further confirmed the unusual nature of the observation. Given the known seasonal effect with a higher incidence of aortic dissections during the winter months (3), analysis of the volumes in the 4 months (January to April) of the last 3 years further confirmed the unusually low volumes after COVID-19.

Although no causal relationship can be firmly established among the drop in type A aortic dissections, the COVID-19 outbreak in NYC, and the increase in at-home deaths since the last week of March 2020, this gives pause for thought. Several hypotheses may explain this observation, including patient fear of

contracting COVID-19 if presenting to the ED, overstretched first responders causing undue delays, or overburdened EDs causing delayed or missed diagnoses. Importantly, this finding raises important public health concerns about the unintended consequences of the COVID-19 pandemic. It is critical, as we adjust to the pandemic, to balance the public health imperative of social distancing with the individual need to consult in the presence of sudden severe symptoms. Furthermore, additional resources, ranging from telemedicine to numbers of first responders, should be greatly increased. This serves as a word of caution for cities yet to experience a surge in COVID-19 cases, as well as for future similar events.

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Vascular Age Is Not Only Atherosclerosis, it Is Also Arteriosclerosis

A recent issue of the *Journal* shined a spotlight on vascular aging by publishing a relevant longitudinal study (1) and 2 seminars (2,3). The numerous pathways connecting risk factors with several conditions and diseases, including cardiovascular disease (CVD), through biomarkers of vascular senescence are summarized in the Central Illustration of one of the seminars (3). The picture suggests that vascular aging is a driver of age-related chronic disease and mortality. Conversely, in the current American College of Cardiology/American Heart Association (4) and European (5) guidelines for CVD prevention, assessment of vascular aging is absent. Because factors influencing vascular age are numerous and their impact on vascular health varies between individuals, a direct, noninvasive assessment of vascular health is advisable. Carotid ultrasound, ankle-brachial index, and coronary artery calcium score are recommended according to European guidelines for CVD prevention because of their reclassification potential in addition to traditional risk scores (5), whereas American College of Cardiology/American Heart Association guidelines recommend only coronary artery calcium score (4). However, these biomarkers represent the atherosclerotic component of vascular aging, which is only one side of the coin. Arteriosclerosis is equally relevant as a mechanism of age-related diseases, as highlighted in the recent issue of the *Journal*. Arterial stiffness (determined via carotid-femoral pulse wave velocity) also has reclassification potential and can be measured with simple, noninvasive, increasingly available techniques. Nevertheless, a number of unmet needs are limiting the measurement of arteriosclerosis in routine clinical practice (**Table 1**), which the VascAgeNet Cooperation in Science and Technology (COST) Action is currently working to address.