The authors reported no conflicts of interest.

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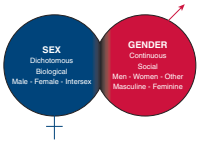

DISSECTING SEX AND GENDER

To the Editor:

With great interest, we read the study by Rylski and colleagues[1] titled "Gender-Related Differences in Patients With Acute Aortic Dissection Type A," published recently in the *Journal*. The topic of male–female differences in aortic disease remains underexplored, despite the increasing attention for sex and gender differences in cardiovascular research. The paper is therefore very much welcomed, well-written, and provides insightful data. However, we have one critical comment regarding the use of the word "gender" by the authors to indicate the male–female cohorts.

Sex and gender are often used interchangeably by researchers; however, the terms indicate 2 different things. The World Health Organization defines "sex" as "… the biological characteristics that define humans as female or male."[2] "Gender" is defined as "… the socially constructed characteristics of women and men—such as norms, roles and relationships of and between groups of women and men."[3] In research terms, sex is considered a binary variable. Gender, in contrast, is a continuous variable defined by the patient, including a range of characteristics varying with age, ethnicity, geographic location, education, and culture.[4]

In scientific research, it is very important to use uniform and correct definitions of key variables such as sex and gender to ensure that research on the topic is interchangeable. Furthermore, we must be mindful that often it remains unclear whether the observed effects or associations are attributable to sex, to gender, or to a combination of both. When this is the case, we suggest to use the term male–female differences to encompass the broader spectra of sex and gender.

In the study by Rylksi and colleagues, the terms male and man, and female and woman, were used interchangeably. This is not correct, as the terms refer to sex, respectively gender. We find male–female differences to be the more appropriate term to use in this paper, as the variables included in the investigation can be associated with both sex and gender. We encourage efforts such as those by performed by Rylksi and colleagues to increase the body of knowledge concerning this important topic, keeping in mind the correct nomenclature. It is important to explore determinants of adverse outcome in all genders, to improve the quality of care for all patients.

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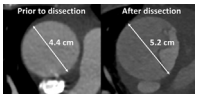

REPLY FROM AUTHORS: SEMANTICS AGAINST IMPROVING OUTCOME OF TYPE A DISSECTION SURGERY: WE CAN WIN THE BATTLE, BUT HOW NOT TO LOSE THE WAR?

Reply to the Editor:

It was with great interest that we read the Letter to the Editor by Gökalp and colleagues titled "Dissecting Sex and Gender"[1] commenting on our paper "Gender-Related Differences in Patients With Acute Aortic Dissection Type A."[2] We appreciate the sincere, deep concerns of

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our colleagues, who clarify the difference between gender and sex and how to avoid semantic errors reporting on male and female subjects in clinical studies. Using the correct language is important, and all attempts, such as this letter or guidelines on reporting standards like the STORAGE (standards of reporting in open and endovascular aortic surgery) guidelines,[3] play a central role in keeping our papers semantically correct. This battle can be won thanks to Gökalp and colleagues. However, what about the critical problem, such as still-high mortality in patients with type A dissection and the poor tools available to identify those at high risk of aortic dissection? Are we winning the battle, but still losing the war?

Among patients with acute aortic dissection type A, some unfortunately have a known ascending aneurysm that was not large enough to qualify for elective replacement according to the current guidelines (Figure 1). In-hospital mortality in patients with type A dissection remains excessively high (>10% in most centers), and it exceeds mortality in low-risk elective ascending replacement. The bitter truth is that we have no better parameters other than diameter to predict aortic dissection. Furthermore, our guidelines[4] do not differentiate between female and male patients, body surface area, or other parameters, indicating proportion between aorta and the body are still not commonly used.

We do not challenge the importance of the Gökalp and colleague's comment[1] on correct language, but we do want to emphasize what we believe is paramount in aortic surgery. Our guidelines for elective ascending replacement rely on aortic diameter only.[4] Furthermore, we are fully aware that more than 90% of patients with acute type A dissection fail to meet the guidelines for elective ascending replacement before dissection onset.[5] We encourage all those working hard in laboratories trying to discover tools that are better than aortic diameter only to predict aortic dissection. We appreciate all those who analyze other potential risk factors such as aortic length, blood flow, and genetic and biochemical risk factors. We are grateful to all of you for spending your time, frequently free time, and investing a lot of energy to discover why aortas with normal diameter dissect. Answering this question will let us save many lives, lives often lost nowadays.

We can win the battle against biased language, but we must also do everything possible not to keep losing the battle against "unexpected dissection onset"—the still poor outcome in type A dissection patients.

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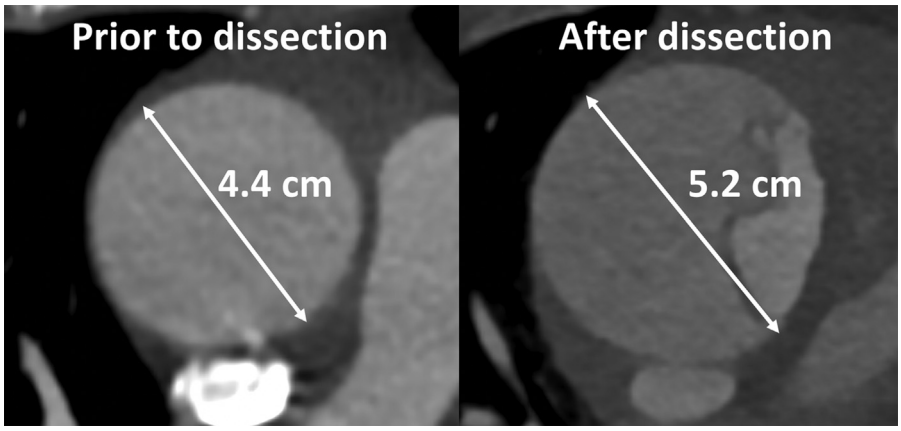

FIGURE 1. Computed tomography of the ascending aorta before and after dissection onset in a 68-year-old woman with dissection complicated by cardiac tamponade, an occluded, dissected right common carotid artery, severe stroke with hemiplegia, and left-leg malperfusion. The predissection computed tomography was obtained 6 weeks before dissection onset during the regular control in outpatient clinic. The ascending aorta measured 4.4 cm at that time.

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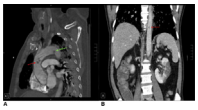

SPONTANEOUS CORONAVIRUS DISEASE 2019 (COVID-19)-ASSOCIATED LUMINAL AORTIC THROMBUS

To the Editor:

Coronavirus disease 2019 (COVID-19) has been associated with profound coagulopathies via direct and indirect mechanisms.[1] Aortic thrombus is typically identified in atherosclerotic or aneurysmal aortas and can be discovered as a rare embolic source.[2] We report 2 cases of aortic intraluminal thrombi without history of aortic disease, vasculitis, or coagulopathy.

Patient 1 was a 62-year-old male patient with hyperlipidemia who presented with diarrhea and hypoxia and was diagnosed with COVID-19 on April 28, 2020. He was supported for 72 hours then progressed to hypoxic respiratory failure requiring mechanical ventilation. His presenting laboratory work was notable for D-dimer of 1.19 mg/L (normal <0.57 mg/L) and fibrinogenemia to 728 mg/dL (normal <464 mg/dL). He was started on 160 mg of subcutaneous enoxaparin daily. His D-dimer increased to 14.87 mg/L at the time of decompensation. An emergent computed tomography (CT) scan with pulmonary–arterial-phase contrast was obtained. A large ascending intraluminal thrombus, as well as a distinct proximal descending thoracic aortic intraluminal thrombus, was found with normal aortic size and wall thickness and without calcifications (Figure 1, *A*). No echocardiographic evidence of ventricular thrombus or endocarditis was found. CT of his brain identified a large right parietal stroke. A multidisciplinary team agreed to low-dose heparin infusion, without an antiplatelet agent, and repeat CT angiography in approximately 2 weeks to ensure thrombus dissolution.

Patient 2 was a 57-year-old male patient with diabetes mellitus, hypertension, hyperlipidemia, and previous transient ischemic attack who developed fevers and myalgias and was diagnosed with COVID-19 via reverse-transcription polymerase chain reaction on April 16, 2020. Presentation studies were notable for a normal D-dimer of 0.46 mg/L. His home medications included daily aspirin, which was continued throughout his hospitalization, along with enoxaparin prophylaxis. Shortly thereafter, he was transferred to the intensive care unit for hypoxic respiratory failure requiring noninvasive positive pressure ventilation. On hospital day 9, he developed acute abdominal pain and an elevated lactate of 3.1 mmol/L. His D-dimer peaked at 29.97 mg/L the same day. An emergent CT of his abdomen and pelvis identified bilateral renal infarcts and distal

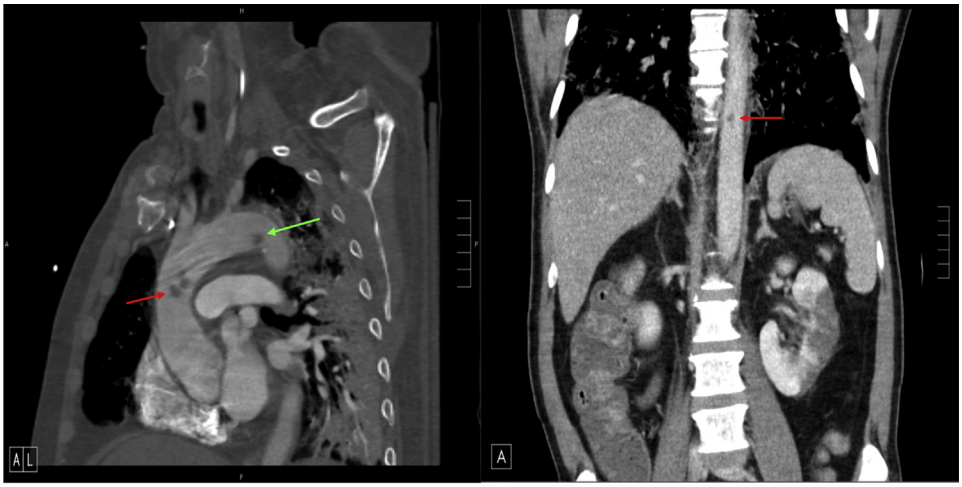

FIGURE 1. A, Ascending (*red*) and descending (*green*) aortic thrombi. B, Descending aortic thrombus.