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The Potentially Harmful Dimension of Pauci-Symptomatic Aortic Dissection

To the Editor:

The pauci-symptomatic presentation of aortic dissection reported by Schattner et al[1] has, as its counterpart, the pain-free presentation of aortic dissection where only one of the complications is the presenting feature. This pauci-symptomatic presentation has a potentially harmful dimension when there is a risk of iatrogenic harm during management of the presenting pauci-symptomatic feature.

A prime example is the presentation of aortic dissection with stroke, in the total absence of back pain, chest pain, or pain anywhere else.[2] This was a feature in 5 of 1637 patients who were admitted to the National Cerebral and Cardiovascular Center between 2007 and 2013 with suspected ischemic stroke. All 5 had neither chest pain nor back pain. All 5 had "onset-to-door time" of <4 hours, arguably making some of them eligible for the 3-hour window of opportunity to benefit from thrombolytic therapy.[3] However, attribution of stroke to aortic dissection was a contraindication to that treatment modality, given its attendant hemorrhagic risk.[4]

Presentation with pain-free ST-segment elevation is another example of pauci-symptomatic aortic dissection, which has the potential to generate thrombolysis-related iatrogenic harm. In one example, the presenting feature was breathlessness but without chest pain, back pain, or pain anywhere. The blood pressure was 210/135 mm Hg, and a diastolic murmur was detected. The electrocardiogram showed ST-segment elevation in leads V1-V6. Portable echocardiography disclosed aortic regurgitation and a small pericardial effusion. Repeat echocardiography showed a dissection flap and a dilated ascending aorta. Subsequently, the patient had a successful aortic repair.[5] In this instance, pretest probability of aortic dissection was generated by the presence of hypertension and aortic regurgitation. Furthermore, the pain-free presentation made him ineligible for either thrombolysis (which would have generated a risk of cardiac tamponade in a patient who already had echocardiographic documentation of pericardial effusion) or percutaneous coronary intervention, given the time-sensitive criteria for the administration of those 2 treatment modalities.[6,7]

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