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Acute retrograde type A intramural hematoma during severe acute respiratory syndrome coronavirus 2 pandemic

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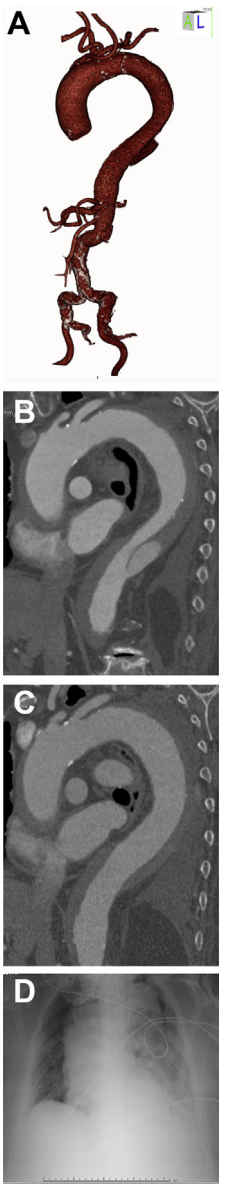
Acute intramural hematomas (IMHs) occur in ~6% of patients with acute dissections (ADs) and mostly affect the descending aorta.[1] Type A IMHs involve the ascending aorta and type B IMHs do not involve the ascending aorta. Retrograde type A IMHs (retro-TAIMHs) originate in the descending aorta and extend into the arch or ascending aorta. TAIMHs with distal AD carry an in-hospital mortality risk of 12% to 26%.[1,2]

We report the case of an 85-year-old woman with acute retro-TAIMH and distal AD. The patient provided consent for the report of her case. She was admitted to the emergency room with acute onset dyspnea and chest pain but no evidence of malperfusion. Emergency computed tomography angiography identified a retro-TAIMH with AD and a proximal entry tear above the celiac axis (*A*/Cover).

The patient was hemodynamically stable. She was treated with hypotensive and analgesic therapy and hospitalized for intensive monitoring. Follow-up computed tomography angiography was performed at 24 hours (*B*) and 7 days (*C*) showing progressive to complete thrombosis of the entry tear, with a reduction in the aortic diameter, the most important predictor of IMH regression and positive outcomes.[3] Complete symptom regression occurred. The event was observed during the peak of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic in Lombardy, Italy. The patient had tested positive for SARS-CoV-2 at 5 days after symptom onset, with progressive dyspnea and worsening findings on a chest radiograph (*D*). She died of pulmonary complications at 19 days postoperatively.

Hybrid treatment with ascending aortic replacement and distal thoracic aortic endovascular repair (TEVAR) or using the frozen elephant trunk procedure is the most appropriate treatment for acute retro-TAIMH. TEVAR is a valid alternative only for patients with prohibitive surgical risk, although the landing zones could be unsuitable and the risk of neurologic and cardiac complications can be high.[4] Medical treatment appears to be appropriate for asymptomatic patients, those with noncomplicated retro-TAIMHs, and patients with high open surgical and TEVAR risks.[4]

Considering both the absence of end-organ malperfusion and the advanced age of our patient, we chose medical treatment, which can reduce mortality by 67% to 95%.[5] This choice proved effective with symptom recovery and clinical stability of the present patient, until the deadly overlap of SARS-CoV-2.



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