A Rare Presentation of an Acute Aortic Syndrome

Uma Apresentação Rara de um Síndrome Aórtico Agudo

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https://doi.org/10.48687/lsj.227

Keywords: Acute Aortic Syndrome; Aortic Diseases/diagnosis

Palavras-chave: Doenças da Aorta/diagnóstico; Síndrome Aórtico Agudo

The authors report the case of an 80-year-old woman, with a history of hypertension and dyslipidemia, under evaluation due to epigastric discomfort and feeling of fullness.

The patient reported a previous history of respiratory infection about a month ago, accompanied by a heavy cough and chest pain.

Suspecting a gastrointestinal etiology, she was oriented to perform an upper digestive endoscopy, which was unsuccessful due to the inability of the probe to progress after the mid-esophagus area.

For clarification, she performed a computed tomography (CT) that showed an increase in the caliber of the ascending segment of the thoracic aorta (6.4 cm maximum transverse diameter), at the level of the pulmonary artery bifurcation, conditioned an extensive aortic intramural hematoma, extending cranially and towards the brachiocephalic arterial trunk (Figs. 1 A,B).

Once the patient was diagnosed with acute aortic syndrome, we initiated pre-surgical evaluation of urgent cardiothoracic surgery.

Cardiac CT raised the hypothesis of aortic dissection with a discrete disruption of the intima seen in the distal ascending aorta / transition to the aortic arch (Fig 1C). It showed non-involvement of the origins of the coronary arteries and no obstructive coronary disease.

The echocardiogram revealed a tricuspid aortic valve, with mild to moderate regurgitation, a non-dilated left ventricle, with moderate global impairment of its systolic function. Pericardial effusion was excluded (Fig. 1D).

Intraoperative evaluation revealed a 5 cm entry port beginning in the transition to the aortic arch extending cranially to the space between the brachiocephalic trunk and the left carotid artery confirming a Stanford type A dissection (Figs. 2 A,B). The dissection prolonged to the aortic root involving the non-coronary sinus and part of the right coronary sinus. Excision of the entire ascending aorta and part of the arch was done, with the implantation of a conduit 30 mm at sinotubular junction level (Fig. 2 C).

Afterwards the patient was admitted to intensive care, with good evolution, without neurological deficits and rapid

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Recebido/Received: 05/09/2024 **– Aceite/Accepted:** 14/09/2024 **– Publicado online/Published online:** 30/09/2024 **– Publicado / Published:** 30/09/2024

suspension of aminergic support. She was successfully discharged 7 days postoperatively.

Remarkable progress led to essential changes in how thoracic aortic dissection is understood and treated. Aortic dissection therapy has recently evolved to "malperfusion and anatomy--oriented treatment."[1]

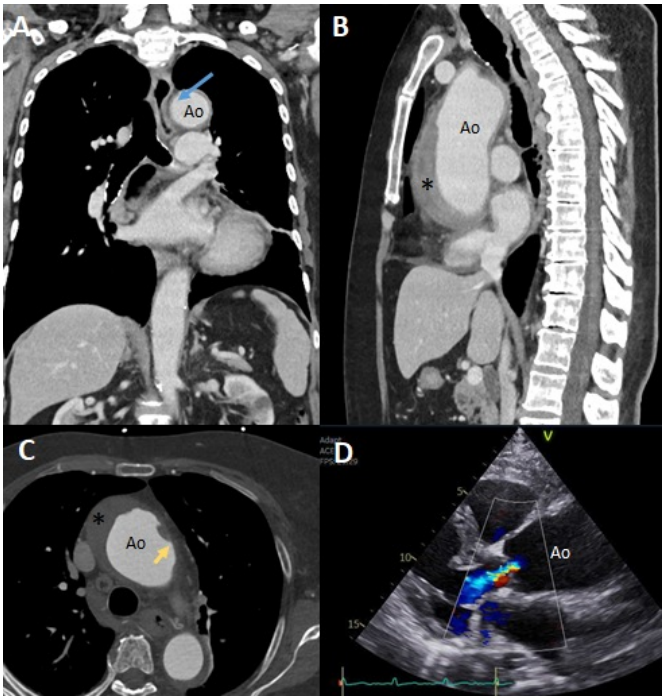

Figure 1. (A)Coronal computed tomography (CT) image showing extrinsic esophageal compression (blue arrow) by the aorta (B) in sagittal CT the ascending aorta shows a crescentic thickening (asterisk) of the aortic wall resembling an intramural hematoma. (C) Axial cardiac CT image at the level of distal ascending aorta, a discrete disruption of the intima is seen (yellow arrow) (D) echocardiogram paraesternal long axis demonstrates aortic root dilatation with consequent, central, mild to moderate aortic insufficiency

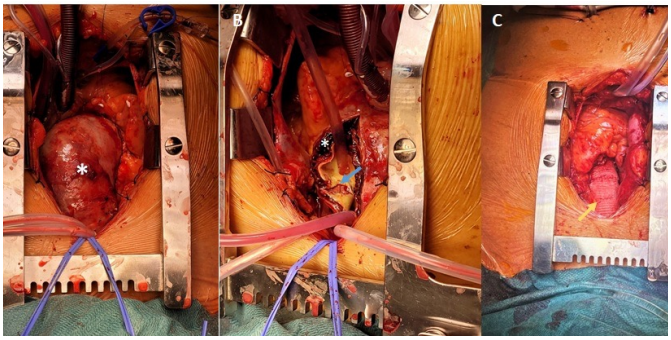

Figure 2 (A) Surgical view of ascending aortic aneurysm and hematoma (asterisk) (B) a dissection tear (blue arrow) was found at surgery in the transition to the aortic arch. (C) final result with supracoronary ascending aorta replacement with a Dacron graft using a hemiarch approach?

Advanced age, male gender, long-term history of arterial hypertension, and the presence of aortic aneurysm confer the greatest population attributable risk.[2]

In subacute conditions, as in this case, the imaging distinction between a dissection and a hematoma can be challenging.[3] To distinguish the varying forms of aortic dissection that require different treatments and to clarify the vocabulary employed when reporting on aortic dissection, Sievers *et al*[1] have proposed a new classification. The TEM classification is based on the Stanford dissection classification (A and B) but is supplemented by adding the factor non-A non-B aortic dissection (isolated arch), the primary entry tear's location (E), and malperfusion status (M). Patients with type A, like our patient, are considered for emergency open surgical repair.[4]

With this case, the authors intend to alert to atypical presentations of the disease. A high degree of suspicion and using different modalities may be required in certain cases to save effort and time to reach the diagnosis, which can be lifesaving.

Ethical Disclosures

Conflicts of Interest: The authors have no conflicts of interest to declare.
Financial Support: This work has not received any contribution, grant or scholarship.
Confidentiality of Data: The authors declare that they have followed the protocols of their work center on the publication of data from patients.
Patient Consent: Consent for publication was obtained.
Provenance and Peer Review: Commissioned; without external peer review.

Responsabilidades Éticas

Conflitos de Interesse: Os autores declaram não possuir conflitos de interesse na realização do presente trabalho.
Suporte Financeiro: Não existiram fontes externas de financiamento para a realização deste artigo.
Confidencialidade de Dados: Os autores declaram ter seguido os protocolos da sua instituição acerca da publicação dos dados de doentes.
Consentimento: Consentimento do doente para publicação obtido.
Proveniência e Revisão por Pares: Comissionado; sem revisão externa por pares.

Contributorship Statement

NM: Research, Drafting and review of article
MJA, NB and MTG: Research and Review of article
All authors approved the final version.

Declaração de Contribuição

NM: Pesquisa, redação e revisão do artigo

MJA, NB e MTG: Pesquisa e revisão do artigo

Todos os autores aprovaram a versão final.

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