

## Large Lymphoma Involving the Aortic Arch and its Branches: Demonstration by Echocardiography and Contribution to the Assessment of Hemodynamic Repercussions

*Grande Linfoma Envolvendo o Arco Aórtico e seus Ramos: Demonstração pela Ecocardiografia e Contribuição na Avaliação de Repercussão Hemodinâmica*

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An 18-year-old man reported cervical adenomegaly that had progressively increased for about one year. The tumor was visible, was non-mobile, had a fibroelastic consistency, was painless on palpation, and showed no signs of inflammation. He was diagnosed with classical Hodgkin's lymphoma by a lesion biopsy with anatomopathological and immunohistochemical tests (CD15-, CD30-, and PAX-5-antibody-positive). Transthoracic echocardiography showed a large mass with a heterogeneous texture involving the pulmonary artery, the aortic arch (and its main branches), and the proximal descending aorta. Pulse and continuous wave color Doppler showed no evidence of flow impairment in the proximal descending aorta or the proximal segments of the brachiocephalic trunk, left common carotid artery, and left subclavian artery. Contrast chest tomography corroborated the echocardiographic findings, showing an extensive solid mediastinal tumor looking resembling a lymph node conglomerate occupying

the anterior and middle compartments of the mediastinum and involving the vascular structures. There were no signs of compression or invasion.

### Authors' contributions

Research conception and design: Feitosa INA; data collection: Feitosa INA, Wanderley MC; data analysis and interpretation: Feitosa INA, Wanderley MC; manuscript writing: Feitosa INA; critical review of the manuscript for important intellectual content: Feitosa INA and Wanderley MC; and collection of echocardiographic images: Feitosa INA.

### Conflict of interest

The authors have declared that they have no conflict of interest.



**Figura 1** – Chest X-ray in posteroanterior incidence demonstrating enlargement of the upper part of the mediastinum.

### Keywords:

Echocardiography; Lymphoma; Thoracic aorta .

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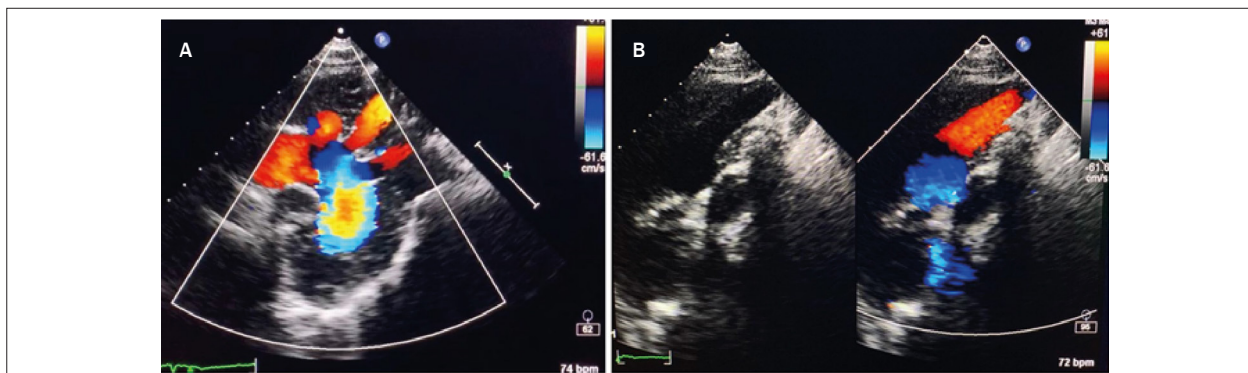
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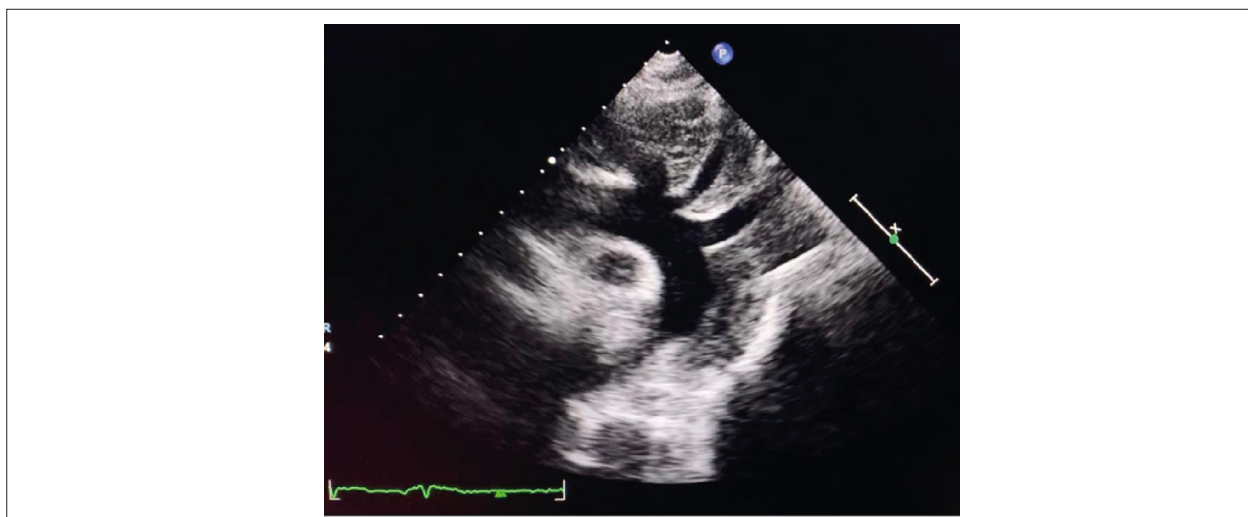
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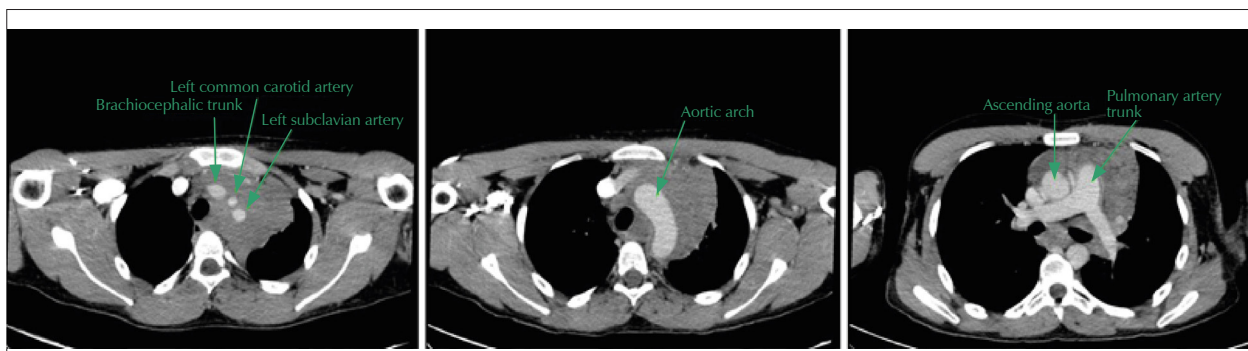
## Images



**Figure 2** – A - Transthoracic echocardiography (suprasternal notch view) showing color Doppler flow of the aortic arch (and its main branches) and proximal descending aorta; B - Two-dimensional image and color Doppler flow of the brachiocephalic trunk.



**Figure 3** – Transthoracic echocardiography (suprasternal notch view) showing a mass of heterogeneous echogenicity involving the aortic arch (and its main branches) and the proximal descending aorta.



**Figure 4** – Contrast-enhanced chest computed tomography revealing extensive solid mediastinal tumor involving pulmonary artery, aortic arch (and main branches) and proximal descending aorta. There is no evidence of compression or invasion.