

# A silent trio: giant descending aortic aneurysm combined with coarctation and persistent left brachiocephalic truncus

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## Abstract

We report the case of an undiagnosed descending aortic aneurysm, combined with coarctation and persistent left brachiocephalic truncus in a 59-years old male. This case underscores the increased necessity for aortic imaging while facing a poorly controlled hypertension, erroneously considered as of essential origin.

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**Keywords:** giant aneurysm; descending aorta; left brachiocephalic truncus; coarctation.

## Key clinical message:

We report a case of an undiagnosed descending aortic aneurysm, combined with coarctation and persistent left brachiocephalic truncus in a 59-years old male. It highlights the necessity for aortic imaging, when facing a poorly controlled hypertension.

## CLINICAL IMAGES

A 59-year-old Albanian man presented at for radiological evaluation following a two -week period of effort dyspnea. He had a poorly controlled hypertension and was a lifetime heavy smoker (more than twenty cigarettes daily). During a cardiological consultancy, his blood pressure was 170/120 mmHg, with a heart rate of 110 beats per minute. A diastolic murmur was the only finding in the auscultation, and electrocardiogram was considered within normality. A CT angiogram of the thorax was performed the same day, with impressive images of a giant descending aortic aneurysm that reached a maximum of 9,8 centimeters in transverse diameter (Figure 1a and 1b).

<Figure 1a-b here>

A dissecting flap of more than four centimeters was as well visualized. Proximally to the dilated portion, the aortic arch was severely coarcted, with a narrowed opening of about 6,8 millimeters in the transverse diameter. Hypertrophic intercostal arteries were present at the sagittal reconstructed CT images. The patient was never diagnosed previously for coarctation; furthermore, the axial CT images showed the presence of left brachiocephalic artery (Figure 2a and 2b).

<Figure 2a-b here>

Giant asymptomatic aortic aneurysms are rarely reported, but still present and therefore, a cause of major concern in emergency medicine [1, 2].

## REFERENCES

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## FIGURE LEGENDS

**Figure 1a:** Descending aorta presented extremely dilated, with a transverse diameter of 9,78 cm (markers).

**1b:** Angio CT reconstruction images showing the giant aneurysm.

**Figure 2a:** Sagittal thorax reconstructed CT images showing the presence of hypertrophic intercostal arteries (arrow) as well as the giant aneurysm with a dissected flap (asterisk). **2b:** Presence of right and left brachiocephalic trunci, with respective transverse diameters in centimeters.

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## CONFLICT OF INTEREST

None declared.

## AUTHOR CONTRIBUTIONS

MB, DN, GV and EP: involved in manuscript writing, data collection, and literature reviewing.







