Intramural hematoma of the thoracic aorta
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Section: Cardiovascular
Imaging Technique: CT
Imaging Technique: MR
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Case Type: Clinical Cases
Authors: E. Bassetti, A. Petrone, F. Manganaro, C. Catalano
Patient: 42 years, male

Clinical History:
A 42 year-old male patient with hypertension and thoracic symptoms underwent, in our hospital, transesophageal echocardiography, spiral CT and MRA. The images showed a disomogeneity of the periaortic fluid, suggestive of a recent small bleeding in the context of the aortic wall.

Imaging Findings:
Hypertension (220/140) was first noticed at the age of 38. Seven months ago he presented severe dispnea, feeling of heaviness in the chest and palpitation. A transesophageal echocardiography showed hypecogeneicinity of the aortic wall but there was no evidence of pericardial fluid and thoracic aortic dissection. For these reasons he underwent an MRA. The images showed a semilunar periaortic fluid area in the context of the aortic wall (hipointense in T1 W, hyperintense in T2 W). This area was localized at the level of the descending thoracic aorta, below the origin of the left subclavian artery. To study the clinical evolution of the patient a spiral CT was also performed. The images showed a disomogeneity of the periaortic fluid. It appeared as a recently small bleeding in the contest of the aortic wall.

Discussion:
In presence of an intramural aortic hematoma, spiral CT and MRA are the only techniques that allow to perform a correct diagnosis. Furthermore, these non invasive techniques provide an early diagnosis in a short time allowing, the patient to be treated immediately. The accuracy of these techniques allow to choose the most useful clinical, surgical or interventional approach for the patient.

Differential Diagnosis List: Intramural hematoma of the thoracic aorta

Final Diagnosis: Intramural hematoma of the thoracic aorta

References:
Narimatsu M., et al.
Fate of intramural haematoma of the aorta: CT evaluation

Oliver TB, et al.
Serial MRI in the management of intramural haemorrhage of the thoracic aorta
Br-J-Radiol. 1997 Dec; 70 (840) 1288-90. (PMID: 9505850)

Schnyder P., et al.
"Spiral CT aortography: an efficient technique for the diagnosis of traumatic aortic injury";
Figure 1

Description: It shows the presence of a semilunar periaortic fluid area at the descending segment of thoracic aorta. Origin:
Figure 2

**Description:** It shows the presence of moderately disomogeneous semilunar periaortic fluid area, suggestive of a recent small bleeding in the context of the aortic wall.

**Origin:**
Figure 3

**a**

Description: It's well shown the semilunar periaortic fluid **Origin:**

**b**

Description: It's well shown the semilunar periaortic fluid **Origin:**
Description: There is no evidence of epiaortic vessels interest
Origin:
Description: The image confirm the presence of intramural hematoma

Origin: