

Letter to the Editor

Transoesophageal Echocardiography Remains a Fast and Bedside Method for Aortic Arch Imaging with High Accuracy

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I read with great interest the response of I. Dalainas to our published case¹ of an asymptomatic penetrating atherosclerotic ulcer at the aortic arch and his considerations regarding the ideal imaging modality for the demonstration of an aortic pathology.

Firstly, I agree that ECG-gated multidetector computed tomography (ECG-MDCT) is a very promising tool in aortic imaging. It can allow simultaneous imaging of the aorta, as well as the coronary arteries—at least the proximal parts—and the main pulmonary artery and the branches, with very good accuracy. From this point of view, it can be very useful in the emergency department, since it can be of help in the differential diagnosis of chest pain (acute coronary syndrome, acute aortic syndrome, pulmonary embolism, pulmonary disease, etc.). However, this really new imaging modality is available in only a very small number of hospitals and has an ongoing learning curve, whereas on the other hand magnetic resonance imaging (MRI) is already very widely used. Furthermore, the role of ECG-MDCT in aortic imaging and its probable incremental value regarding MRI of the aorta has not yet been documented.

In the last Recommendations of the

Task Force on Aortic Dissection of the European Society of Cardiology² (published in 2001, thus rather old, but they have not been renewed) MRI has indication Class I for aortic imaging, whereas transoesophageal echocardiography and helical computed tomography have indication Class IIa. Moreover, in these Recommendations it is stated clearly that the sensitivity and specificity of computed tomography are greater than 90% and 85%, respectively, and that its limitations are related to the diagnosis of aortic regurgitation, tear localisation, as well as detection of intimal tears and subtle/discrete aortic dissection. MRI is considered to have the highest accuracy and sensitivity, as well as specificity (nearly 100%), for the detection of all forms of dissection (classes 1, 2 and 4, 5) except subtle/discrete forms (class 3) and is most often used in stable haemodynamic conditions (as in our case), and for follow up in chronic aortic dissection, providing excellent visualisation of tear localisation, aortic regurgitation, side branch involvement and complications.

Finally, the purpose of the case we presented¹ was to emphasise the role of transoesophageal echocardiography in aortic arch imaging, which is usually very difficult. Transoesophageal echocardiog-

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raphy remains a very fast, safe and bedside method which can be used for decision making in acute aortic dissection in the emergency room, or even the operating theatre, with high accuracy. The high resolution also enables the diagnosis of intramural haematoma, plaque ulceration, as well as traumatic aortic injury.

References

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