Left atrial myxoma in syncope differential diagnosis: different perspectives

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DESCRIPTION

A 64-year-old man presented to the emergency department with a 5-day history of syncope after dejections, with a feeling of reflux in the epigastric region in decubitus position. As relevant medical history, the patient was medicated for type 2 diabetes and, several months before, he underwent thyroid resection after being diagnosed with and autonomous thyroid nodule.

There were no abnormal findings on physical examination. Blood tests results were normal. The ECG showed no alterations, being in sinus rhythm at 78 beats per minute.

A transthoracic echocardiogram was performed (figure 1) showing a static mass in the left atrium. The transoesophageal echocardiogram (figure 2) improved its characterisation, allowing the measurement of with a 5 cm² approximated area.

Figure 1 Transthoracic echocardiogram (apical two-chamber view). Atrial myxoma marked with an arrow. IAS, interatrial septum; LA, left atrium; LV, left ventricle

Figure 2 Transoesophageal echocardiogram (midesophageal view). Atrial myxoma marked with an arrow. LA, left atrium

Figure 3 Heart CT: the intravenous contrast allows to limit the tumour (dashed line). Atrial myxoma marked with an arrow and limited by a dash line. AO, aorta; LA, left atrium; LV, left ventricle; PV, pulmonary veins; RA, right atrium; RV, right ventricle.

Figure 4 Cardiac MRI (left chambers view). Atrial myxoma marked with an arrow and limited by a dash line. AO, aorta; LA, left atrium; LV, left ventricle.

Figure 5 Cardiac MRI (four-chambers view). Atrial myxoma marked with an arrow and limited by a dash line. LA, left atrium; LV, left ventricle; RA, right atrium; RV, right ventricle.

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Images in...

Patient's perspective

'I've never really had symptoms since the thyroid was taken from me. I thought that was it. But I was startled when I passed out in the bathroom up to seven times. Luckily they diagnosed me quickly and told me that the surgery will be done in a month.'

Learning points

- Primary cardiac tumours are uncommon. Among them, myxoma is the cause of 50% of cardiac tumours. It is a benign tumour, intracavitary and it usually affects female between the third and sixth decade of life, often associated with mitral valve disease.
- The symptoms depend on the location of the tumour. In our case, the location is less usual (insertion of pulmonary veins) and syncope is associated with repetitive Valsalva manoeuvres associated with defecation.
- Treatment is surgical, by resection of the myxoma. It also requires a long follow-up due to the risk of recurrence.

A heart CT was made (figure 3), in which compression of the pulmonary veins could be seen. To complete the diagnosis procedure, a cardiac MRI was also performed (figures 4 and 5) confirming the presence of a cardiac myxoma, which leaned

against the insertion of the right pulmonary veins, conditioning turbulent flow. The mitral valve function was undamaged.

Despite the Valsalva manoeuvre induces a reduction of the cerebral and coronary flow velocity,¹ in the presence of syncope of such a short period of evolution, without previous vagal symptoms, in a patient with no history of syncope, the suspicion of possible coronary origin syncope was established. The study carried out led to the diagnosis of a myxoma in the place most frequently described,² but, in this case, causing compression of the right pulmonary veins, causing syncope with Valsalva manoeuvre.

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REFERENCES

- 1 Sikirov BA. Cardio-Vascular events at defecation: are they unavoidable? *Med Hypotheses* 1990;32:231–3.
- 2 Yuan SM, Yan SL, Wu N. Unusual aspects of cardiac myxoma. *Anatol J Cardiol* 2017;17:241–7.

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