



IMAGE OF THE MONTH

Atrial fibrillation secondary to oesophageal tumour[☆]

Fibrilación auricular secundaria a un tumor esofágico

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An 87-year-old female patient with type 2 diabetes visited with palpitations since the previous day. The electrocardiogram showed atrial fibrillation (AF) at 126 bpm, with narrow QRS and no repolarisation abnormalities. The patient had been experiencing dysphagia and constitutional symptoms with subacute onset for a couple of months. Heart sounds were normal and she had no signs of heart failure. Due to

the palpitations having started 48 h earlier and the initial failure of rate control, pharmacological cardioversion was attempted with amiodarone.

Transthoracic echocardiogram (Figs. 1A and 1B) showed normal architecture and biventricular systolic function. She had no dilation of the left atrium (LA) or significant valve disease. What was detected was a mass (M) with homoge-

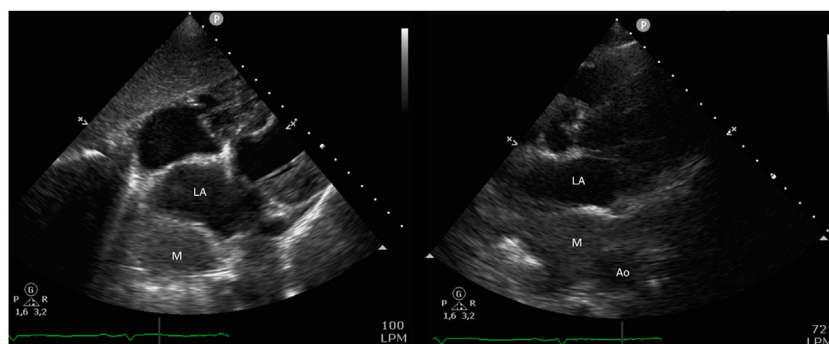


Figure 1 Transthoracic echocardiogram.

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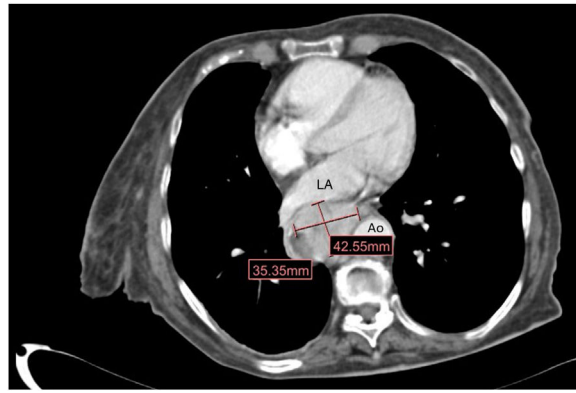


Figure 2 Computed tomography scan with mass in the middle third of the oesophagus middle third of the oesophagus measuring $42 \times 35 \times 55$ cm.

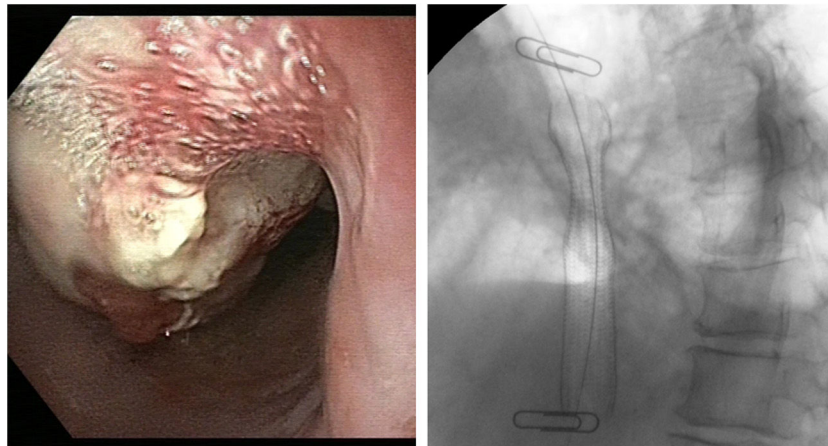


Figure 3 A. Endoscopy. B. Implantation of a self-expanding metal oesophageal prosthesis.

neous density of about four centimetres in diameter at its largest point, between the left atrium and the descending thoracic aorta (Ao). Although it was compressing the LA, it was not compromising filling. Computed tomography showed a mass in the middle part of the oesophagus measuring $42 \times 35 \times 55$ cm (Fig. 2).

Endoscopy then revealed a friable mass of exophytic growth, with serrated appearance and fibrin-covered areas, extending from 35 cm to 25 cm from the dental arch (Fig. 3 and Fig. 3A), compatible with neoplasm. The conclusion from the biopsy was of a poorly differentiated epithelial neoplastic proliferation, with an infiltrative pattern that was at least intramucosal. It was decided to implant a self-expanding metal oesophageal stent (Fig. 3B), to alleviate the patient's symptoms.

Oesophageal tumours have been associated with the development of AF as a complication of oesophagectomy or photodynamic therapy, and due to compression of the LA.¹⁻³ Extrinsic compression of the LA by other masses of different origins has also been associated with AF. Although

the patient had risk factors for the development of AF, the temporal relationship and lack of LA dilation pointed to compression as the most likely cause. This case reflects the need for echocardiographic study of atrial tachyarrhythmias, not only to rule out structural heart disease, but also to rule out atrial compression.

References

1. Bayraktar UD, Dufresne A, Bayraktar S, Purcell RR, Ajah OI. Esophageal cancer presenting with atrial fibrillation: a case report. *J Med Case Rep.* 2008;2:292, <http://dx.doi.org/10.1186/1752-1947-2-292>. Published 2008 Sep 8.
2. Mathisen DJ, Grillo HC, Wilkins EW Jr, Moncure AC, Hilgenberg AD. Transthoracic esophagectomy: a safe approach to carcinoma of the esophagus. *Ann Thorac Surg.* 1988;45:137-43.
3. Overholt BF, Panjehpour M, Haydek JM. Photodynamic therapy for Barrett's esophagus: follow-up in 100 patients. *Gastrointest Endosc.* 1999;49:1-7.