Unilateral anhidrosis: a rare presentation of atrial myxoma?

Justin Gould

Department of General Medicine, Maidstone & Tunbridge Well NHS Trust, Kent, Tunbridge Wells, UK

Correspondence to
Dr Justin Gould,
justin.gould@doctors.org.uk

SUMMARY

A 50-year-old Chinese woman, non-smoker, presented with a 6-month history of increased sweating on the right side of her face, exertional chest tightness and breathlessness. Although the patient presented with increased sweating on the right, further history and examination revealed unilateral, left-sided anhidrosis, left partial ptosis and miosis consistent with Horner's syndrome. The patient was subsequently investigated with thoracic CT to assess for an apical lung mass (Pancoast tumour). A CT chest ruled out a mediastinal tumour, however, it revealed a large 60×41 mm soft tissue mass arising from the left atrium, protruding across the mitral valve into the left ventricle, suspicious of an intracardiac tumour. The patient was referred urgently for cardiothoracic assessment at a tertiary referral centre and successful open resection was performed. Histology confirmed an atrial myxoma. The patient developed postoperative atrial fibrillation but otherwise made a full recovery.

BACKGROUND

Intracardiac tumours are rare and seldom grow large enough to cause compression of the sympathetic chain resulting in a Horner's syndrome. Most intracardiac tumours present earlier with cardiac symptoms of exertional chest tightness and breathlessness or are found as an incidental finding on echocardiography or other forms of thoracic imaging. Furthermore, unilateral anhidrosis of the praecordium suggests compression of the sympathetic chain at a point inferior to an apical lung tumour. This is therefore an interesting and unusual presentation of an atrial myxoma. (Figure 1)

CASE PRESENTATION

A 50-year-old Chinese woman, presented with a 6-month history of increased sweating on the right side of her face, exertional chest tightness and breathlessness. Although the patient presented with increased sweating on the right side of her face and chest, further history and examination revealed unilateral, left-sided praecordial anhidrosis, left partial ptosis and miosis consistent with Horner's syndrome.

There was no significant medical history. The patient was a non-smoker and did not drink alcohol. Her occupation was mostly office based. There was no family history of intracardiac or extracardiac tumours.

INVESTIGATIONS

- ▶ Thoracic CT
- ▶ Transthoracic echocardiogram
- ▶ Cardiac catheterisation and coronary angiogram as part of preoperative assessment

DIFFERENTIAL DIAGNOSIS

Differential diagnosis of Horner's syndrome includes:

1. Mediastinal mass
2. Brainstem stroke
3. Retroparotid mass, for example, parotid gland tumour, carotid body tumour, lymphoma, metastasis and tuberculous adenitis¹

TREATMENT

The patient was referred urgently for cardiothoracic assessment at a tertiary referral centre and successful thoracotomy and excision were performed.

OUTCOME AND FOLLOW-UP

Histology confirmed atrial myxoma. The patient developed postoperative atrial fibrillation but otherwise made a full recovery. The patient remains on life-long anticoagulation for paroxysmal atrial fibrillation and is currently under biannual echocardiographic surveillance and cardiology follow-up.

DISCUSSION

Intracardiac tumours are rare and seldom grow large enough to cause compression of the sympathetic chain resulting in a Horner's syndrome. Most intracardiac tumours present earlier with cardiac symptoms of exertional chest tightness and breathlessness. Furthermore, unilateral anhidrosis of the praecordium suggests compression of the sympathetic chain at a point inferior to an apical lung tumour with contralateral compensatory hyperhidrosis. The CT images of the cardiac tumour were unable to confirm compression of the sympathetic chain. However, there was no head, neck or intracranial pathology to account for this patient's symptoms and therefore it could be suggested that the large left atrial myxoma was

Figure 1 Thoracic CT scan showing a 60×41 mm intracardiac mass.

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compressing part of the sympathetic chain or causing a mass effect within the mediastinum.

Atrial myxoma presenting in this way has not been described in the literature. This is therefore an interesting and unusual presentation of a left atrial myxoma. There are, however, a few reported cases of unilateral anhidrosis (or hyperhidrosis) of the praecordium or below, which were subsequently associated with an underlying neoplastic process related to lung or intraabdominal pathology.²⁻⁵

Learning points

- ▶ The most common primary cardiac tumour is an atrial myxoma, which is usually benign. Early symptoms of atrial myxoma are non-specific and may therefore prove to be a diagnostic challenge.
- ▶ Intracardiac tumours might grow large enough to cause compression of the thoracic sympathetic chain or its peripheral branches, producing Horner's syndrome with extension of unilateral anhidrosis to the praecordium with contralateral hyperhidrosis.
- ▶ Large intracardiac tumours need urgent cardiothoracic intervention given the risk of left atrial outflow obstruction and the risk of lethal ventricular arrhythmias and sudden cardiac death.
- ▶ Horner's syndrome has a wide differential and such patients need a thorough historical and clinical assessment so that significant underlying pathology can be evaluated.
- ▶ Small intracardiac tumours may not be visible on CT scans and echocardiography is therefore the imaging modality of choice.

Competing interests None.

Patient consent Obtained.

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