Unusual association of diseases/symptoms

An unusual cause for recurrent transient ischaemic attacks

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Summary

A 37-year-old gentleman with a known diagnosis of hereditary haemorrhagic telangiectasia was referred to the Chest Clinic with recurrent shortness of breath and transient ischaemic attacks. Following extensive investigations, his CT pulmonary angiogram showed arteriovenous malformation, which led to definitive treatment and complete withdrawal of symptoms.

BACKGROUND

This case is an interesting one, not commonly encountered and thus beneficial both for learning and discussion purposes.

CASE PRESENTATION

A 37-year-old gentleman with a known history of hereditary haemorrhagic telangiectasia (HHT) was referred to the Chest Clinic with shortness of breath, haemoptysis and tiredness.

His medical history included HHT, recurrent nose bleeds, recurrent anaemia, hypertension, hypercholesterolaemia and transient ischaemic attacks (TIAs). He worked as a lorry driver and was married with three children. He

reported to be an ex-smoker and an occasional alcohol consumer.

His chest x-ray (CXR) showed a rounded opacity along the left cardiac border. A CT of the chest was arranged and it showed a large 2x4 cm pulmonary arteriovenous malformation (PAVM) in the lingula with a further small AVM in the left lower lobe, adjacent to the hemidiaphragm (figure 1).

After initial investigations, he was lost to follow-up. He subsequently presented to the Neurology Clinic with a history of headaches. He was diagnosed to have migraines, having had a normal MRI of the brain. He went on to develop TIAs. Carotid Doppler and MR angiography of the head were unremarkable. A contrast echocardiogram was suggestive of patent foramen ovale, however, this

Figure 1 CT of the chest showing a PAVM in the lingula.

Figure 2 Pulmonary angiography confirming a large PAVM.

Figure 3 Pulmonary angiogram postembolisation showing a coil at the AVM site.

was found not to be the case on a cardiac MRI and transoesophageal echocardiogram. A pulmonary angiogram confirmed the AVM (figure 2). Given his history, the patient went on to have an embolisation of the larger AVM (figure 3). He was followed up 6 months postembolisation and reported to be feeling well with no dyspnoea, headaches or further TIAs.

INVESTIGATIONS

In addition to the above, the patient also had oesophagogastroduodenoscopy, which showed gastric erosions. Spirometry was normal, as was his angiogram.

TREATMENT

Transcatheter embolisation of AVM was done.

OUTCOME AND FOLLOW-UP

He was followed up 6 months postprocedure at the out-patient clinic and was found to have no further signs or symptoms.

Learning points

- ▶ Clinicians should have a high level suspicion of and low threshold for investigating HHT.
- ▶ All patients with HHT should be screened for PAVMs, since current data estimate that at least 30% of them have PAVMs. Most of these patients will have no respiratory symptoms with only a third displaying signs suggestive of right-to-left shunt.¹
- ▶ More than 10% of patients with HHT develop brain abscesses and ischaemic or haemorrhagic strokes secondary to AVMs.² While screening patients with HHT for cerebral AVMs is still an intensely debated subject, treating PAVMs reduces cerebrovascular complications.³
- ▶ The combination of anteroposterior chest radiograph and contrast echocardiography achieves 100% sensitivity and negative predictive value. This could potentially obviate the need for CT and/or pulmonary angiography, which is the current gold standard for diagnosing PAVMs.³
- ▶ Transcatheter coil embolotherapy is the safest and most successful treatment for PAVMs and for the prevention of its complications.

Competing interests None.

Patient consent Obtained.

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