

charge monitoring programs, similar to the post-hospital discharge programs studied by the authors, could add value to emergency care, while minimizing the risk of emergency department revisits and/or hospital admission, both recognized quality markers in the care of patients with COPD⁵ and in dispensing urgent medical care.³

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Haemoptysis and Pulmonary Vein Stenosis After Ablation for Atrial Fibrillation: Pathophysiology and Therapeutic Options[☆]

Hemoptisis y estenosis de venas pulmonares tras ablación por fibrilación auricular: fisiopatología y opciones terapéuticas

Dear Editor,

Radiofrequency ablation is an effective procedure for patients with paroxysmal atrial fibrillation refractory to treatment with anti-arrhythmic drugs.¹ Its use is increasingly widespread, with some 40 000–50 000 procedures performed annually in the United States. One of the most commonly described serious complications is pulmonary vein stenosis, which presents in up to 1%–3% of cases.

We present the case of a 49-year-old male, ex-smoker, with a history of hypertension and thrombotic thrombocytopenic purpura resolved with plasmapheresis and prednisone. He had undergone pulmonary vein ablation in another hospital due to paroxysmal atrial fibrillation. After remaining asymptomatic for 2 years, he was admitted to our centre for study after presenting 2 episodes of spontaneous haemoptysis, as well as dyspnoea on moderate exertion. A complete blood count, coagulation study, basal arterial blood gases, electrocardiogram, chest radiograph and autoimmunity study were carried out, but did not show any noteworthy abnormalities.

In the chest computed tomography (CT) study, a “cuff-like” soft tissue lesion with peribronchovascular distribution was identified in the left upper lobe, which was initially interpreted as a possible tumour (Fig. 1A, arrow). Although there was clinical suspicion of pulmonary vein stenosis as the cause of the haemoptysis, due to the radiological finding, it was decided to perform bronchoscopy with a flexible endoscope to take a biopsy in order to exclude a tumour at that level; the bronchoscopy revealed a mucosa with petechiae which bled easily as the bronchoscope passed. During the procedure, the patient experienced major bleeding from the left main bronchus, which required selective orotracheal intubation of the right main bronchus and transfer to the intensive care unit.

A pulmonary angiography was performed, showing stenosis of the left upper pulmonary vein (Fig. 1B, in which a decrease in the vascular calibre can be observed at the level of this vein). Balloon angioplasty was then performed at this level, achieving repermeabilisation, with subsequent good angiographic results (Fig. 1C). After the patient had been stabilised and then discharged, he was admitted on a scheduled basis 2 months later for angioplasty with stent placement.

Haemoptysis has been described in the literature as a rare form of presentation of pulmonary vein stenosis,² but the aetiopathogenesis of the haemoptysis in these patients has not yet been clarified. Aguilar-Cabello et al.³ described a similar case in which

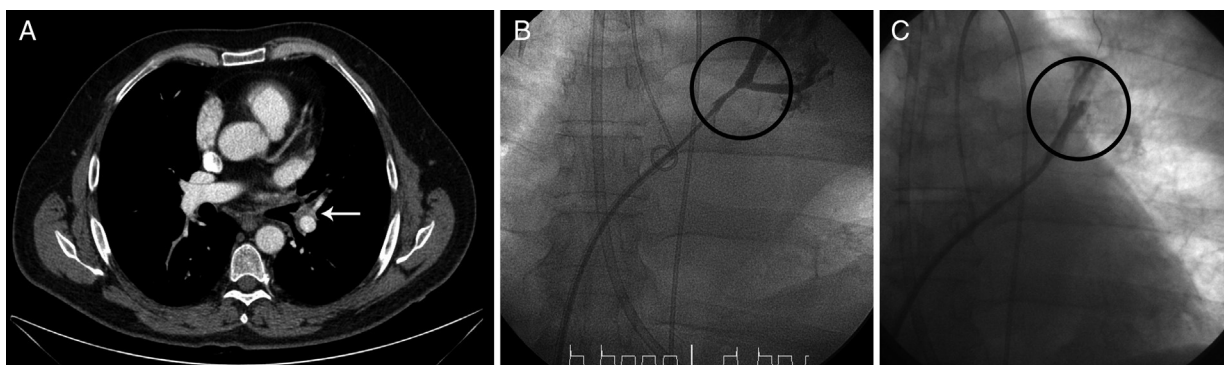


Fig. 1. Pulmonary angiography.

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histopathological examination of a lobectomy sample showed congested lung tissue. The increase in venous pressure in the pre-stenotic zone would explain the lung tissue congestion and the risk of bleeding at the level of the mucosa in this area. In our patient, the image observed initially on the chest CT scan (Fig. 1A) appears to correspond to oedema and peribronchovascular fibrosis secondary to congestion due to thrombosis of the vein. This radiological finding may help to understand the pathophysiology a little more, and serve as a reference to help other clinicians to support the diagnosis of this entity.

Pulmonary vein ablation is a relatively safe procedure, although it is not free of complications. Among the late complications of this procedure are: cardiac tamponade, pulmonary vein stenosis, embolisms, vascular complications, phrenic nerve lesion, gastro-oesophageal fistula and gastric hypomotility secondary to lesion of the vagus nerve at peri-oesophageal level. All these complications, although rare, should be included in the differential diagnosis of unexplained symptoms in patients who have undergone pulmonary vein ablation in the past.

Pulmonary vein stenosis, although it presents asymptotically in most cases,⁴ can manifest, as well as with haemoptysis, as dyspnoea on exertion, cough, chest pain or repeated infections,⁵ which appear between 2 and 5 months after the procedure. For this reason, it is important to be aware of this complication, and to suspect it when these symptoms are present, in order for its early diagnosis and correction.

The therapeutic option in these patients is balloon angioplasty, with or without stent placement. At present, there are no definitive data that suggest that stenting obtains better results than balloon dilation alone.⁶ In our patient, we initially opted for isolated angioplasty, although given the serious clinical repercussions, it was finally decided to place a stent in a second procedure.

Regardless of the therapeutic procedure chosen, and despite the high re-stenosis rate, recent studies show that early intervention is recommended in symptomatic patients.⁶ In the case of asymptomatic patients, the treatment appears to show benefits, although the indication is not as clear.

Our patient's subsequent progress to date has been favourable, with no new episodes of haemoptysis and remission of the dyspnoea on exertion.

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GesEPOC Guidelines and Elderly Patients[☆]

Guía GesEPOC y pacientes ancianos

To the Editor,

I would like to congratulate all the professionals involved in developing the GesEPOC guidelines [Spanish COPD guidelines] for their excellent review and recommendations.¹ However, I sadly have difficulties in extrapolating their conclusions to the type of patient I usually see in Geriatric Departments, even though one of the most common diagnoses encountered there is chronic obstructive pulmonary disease (COPD) or its respective exacerbations. In fact, it is surprising that patients over the age of 80 were excluded from one of the largest studies on the prevalence of COPD in Spain,² when all studies indicate that it is one of the most significant and common diseases in the elderly, and equally surprising is that elderly patients are hardly mentioned in the guidelines.

Since interpretation in multimorbid patients is a highly complex task, elderly populations are routinely excluded from trials in numerous disciplines, and the evidence obtained from young populations in a generally better state of health is taken as valid for older populations. However, in the case of COPD, extrapolating

the evidence from the younger population has a series of important limitations.

From a diagnostic point of view, for example, some patients may present deafness, impaired vision or sarcopenia (among other limitations), causing difficulties in the correct performance and, as a result, the correct interpretation of spirometry tests. Functional or cognitive deficits can make complex tests, or even something as simple as the 6-min-walk test, difficult to perform and interpret. Most clinical guidelines have numerous limitations, since they do not evaluate the elderly patient's wide range of needs, and the evidence obtained from these guidelines habitually underestimates the prevalence of side effects, multimorbidity and polypharmacy, as well as the functional, cognitive and social aspects, and does not reflect the clinical reality.^{3–5} From a treatment point of view, special consideration must be given to the iatrogenic effects that can occur in already polymedicated patients, since many of the drugs regularly used in COPD can have significant side effects in the elderly. In addition, the incorrect administration of inhaled therapies can lead not only to possible poor treatment compliance but also to poorer results from conventional treatments. Given the wide heterogeneity of this population, specific guidelines adapted and stratified according to grades of frailty, such as those already beginning to appear for some diseases like diabetes, are required.⁶

Although the new clinical practice guidelines in the treatment of patients with COPD (GesEPOC) are very useful, for these reasons I feel that they are limited in their use in elderly patients and

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