Persistent left-sided pleural effusion – rare manifestation of iatrogenic pulmonary vein stenosis

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INTRODUCTION Radiofrequency (RF) ablation is a method of choice for treating patients with paroxysmal and persistent atrial fibrillation (AFib) refractory to antiarrhythmics. Pulmonary vein stenosis (PVS) is a rare complication of RF ablation that occurs in 1-3%. Patients may be asymptomatic, present with dyspnea, cough, hemoptysis, and chest or pain. CASE REPORT Here we present a case of 67-year-old male who was hospitalized due to hemoptysis and dyspnea. Five months before admittance he had undergone RF ablation procedure for paroxysmal AFib and at the same time, NOAC was introduced. Chest CT detected a few hemorrhagic infiltrations and a small left sided pleural effusion. No malignant cells or other pathogen were isolated in bronchoscopic specimen. Tumor markers were within normal limits. NOAC was excluded because of lung parenchyma hemorrhage. Hemoptysis did not reoccur, whereas PET/CT scan detected progression of left sided pleural effusion compressing the adjacent lung parenchyma. TTE, TEE, treadmill stresstest and coronary angiography were normal. As pleural effusion progressed, a chest drain was placed and during four days, 5 L of effusion was drained. Repeated cytological analyses of the pleural effusion showed mixed type of effusion with tinge of blood. Cardiac MSCT revealed left inferior pulmonary vein stenosis 13 mm from atrial confluence. Balloon angioplasty and stent insertion is being planned. CONCLUSION Although rarely, recurrent pleural effusion may be primary manifestation of PVS even if only one vein is stenotic. Because of symptomatic and progressive pleural effusion, this patient will undergo vascular intervention which has not yet been done in our country.