

# **An Atypical Case of Post-Pericardiotomy Syndrome**

Shireen Usman

## **Introduction**

Post-pericardiotomy syndrome (PPCS) occurs secondary to injury of the pericardium and is reported in 10 to 40% of patients who have undergone cardiothoracic surgery. It generally presents with low grade fever, pleuritic chest pain, elevated c-reactive protein (CRP) and pericardial/pleural effusions. Unilateral pleural effusions are reported in a minority of patients with PPCS and the incidence of complicated effusions requiring therapeutic drainage is rare. Here, we discuss an unusual case of PPCS that presented with primarily pulmonary symptoms and a large right-sided pleural effusion which was refractory to initial treatment.

## **Case Presentation:**

A 65-year-old man with a 22-pack-year smoking history and calcific aortic stenosis with recent bioprosthetic aortic valve replacement 8 weeks prior to presentation was hospitalized with worsening dyspnea, productive cough, fever, and night sweats. He initially developed symptoms two weeks after cardiac surgery and was treated as an outpatient for suspected pneumonia with no improvement. Outpatient CT chest angiogram obtained 6 weeks after surgery showed a large pericardial effusion with mild-moderate bilateral pleural effusions (right > left). His cardiologist initiated colchicine 0.6 mg twice daily and ibuprofen 600 mg three times daily for suspected PPCS. The patient rapidly improved in the week following treatment, but then developed recurrence of fevers and worsening cough with dyspnea leading to this hospitalization. On admission two weeks after starting therapy, CT chest showed improving pericardial effusion but slightly increased right sided pleural effusion. Laboratory studies were notable for leukocytosis to 11.8, elevated CRP 167, and elevated ESR 126. He was started on empiric antibiotic therapy and underwent right-sided thoracentesis with 800cc of cloudy serous fluid removed. Pleural fluid analysis was consistent with exudative effusion. Final bacterial cultures and medical cytology were negative. His right-sided pleural effusion was determined to be secondary to PPCS. He was started on a prolonged course of prednisone 15 mg and reported resolution of symptoms at post-hospital follow up. His CRP and ESR decreased to 87 and 24, respectively, and repeat CXR showed no evidence of pleural effusion 3 weeks after discharge.

## **Discussion**

PPCS along with post-myocardial infarction syndrome (Dresser syndrome) and post-traumatic pericarditis comprise the more general term, post-cardiac injury syndrome. These conditions are characterized by pericarditis which typically presents with pleuritic chest pain (>80% of patients). Exudative pleural effusions have been observed in PPCS, but are primarily small and left-sided (85% of patients). This is a unique case of PPCS in a patient who presented without chest pain and was found to have a predominantly large right-sided pleural effusion which was refractory to first-line treatment. Diagnosis was complicated by a clinical picture suspicious for possible pneumonia versus malignancy. Symptomatic improvement in this case was ultimately achieved with systemic glucocorticoid therapy and therapeutic thoracentesis.