

Dr. Lance D. Dworkin Department of Medicine Research Symposium

Recurrent Bilateral Pleural Effusion Secondary to Idiopathic Pleuritis in a Young Female Patient

Muzdah Anwar¹, Sree Jambunathan², Kashvi Patel², Zaid Zakaria³, Faraz Badar MD⁴, Amna Al-Tkrit MD⁴, Fadi Safi MD⁴, Mohamed Oballi MD⁴

¹Khyber Girls Medical College, Khyber Pakhtunkhwa, Pakistan

²College of Medicine and Life Sciences, The University of Toledo, Toledo, OH 43614

³An-Najah National University, Nablus, West Bank, Palestine

⁴Division of Pulmonary and Critical Care Medicine, Department of Medicine, The University of Toledo, Toledo, OH 43614

*Corresponding author: muzdah420@gmail.com

Published: 14 December 2023

Introduction: We present a rare case of a 38-year-old female patient with recurrent bilateral pleural and pericardial effusion and Primary Raynaud phenomenon.

Case Presentation: A 38-year-old female presents with bilateral recurrent exudative pleural effusions requiring drainage six times in the past five months. She has complaints of discoloration of the fingers (Raynaud phenomenon), dry cough, and bilateral leg swelling. She denies joint pain, upper extremity swelling, fever, or chills. She has no history of cancer and no new medications. She had extensive rheumatology work-up due to primary Raynaud's phenomenon. Work-up revealed negative cyclic citrullinated peptide, antinuclear antibody, rheumatoid factor, anticentromere, and anti-scl 70. Her TSH was elevated at 6.7 being controlled with levothyroxine 88 mcg daily. She does not have other clinical features of connective tissue disease or autoimmune inflammatory disease such as Familial Mediterranean Fever. CT abdomen revealed bilateral pleural effusion, pericardial effusion, ascites, and no ovarian masses. Liver ultrasound showed normal echotexture and no cirrhosis. Urinalysis showed no proteinuria. Cardiac MRI showed no infiltrative disease. No pulmonary hypertension. Cytology from the pleural fluid has been negative. Patient underwent fluoroscopy with pleural biopsy and pleurx catheter placement. Pleural biopsy showed pleuritis. She received empiric prednisone with plan for right-sided heart catheterization to rule out constrictive pericarditis or restrictive cardiomyopathy.

Conclusion: There are many causes of pleural effusions including congestive heart failure, malignancy, pneumonia, pulmonary emboli, and liver or renal failure. Non-specific pleuritis, defined as fibrinous or inflammatory pleuritis without a specific etiology, can also cause recurrent pleural effusions (1). Thoracoscopic pleural biopsy is valuable in investigating patients with exudative pleural effusions, especially when pleural fluid analysis is uninformative (2). Thus, with pleural effusions of unknown etiology, it is important to include pleuritis, constrictive pericarditis, and restrictive cardiomyopathy.

References

1. Janssen J, Maldonado F, Metintas M. *What is the significance of non-specific pleuritis? A trick question.* Clin Respir J, 2018 Sep. **12**(9):2407-2410. doi: 10.1111/crj.12940. PMID: 30004629.
2. Davies HE, Nicholson JE, Rahman NM, Wilkinson EM, Davies RJ, Lee YC. *Outcome of patients with nonspecific pleuritis/fibrosis on thoracoscopic pleural biopsies.* Eur J Cardiothorac Surg, 2010 Oct. **38**(4):472-7. doi: 10.1016/j.ejcts.2010.01.057. Epub 2010 Mar 12. PMID: 20219385.