## Abstract

Ankylosing spondylitis (AS) is a type of seronegative axial spondyloarthropathy. Pulmonary diseases due to AS are rare, but apical fibrobullous disease with apical pleural thickening has been documented frequently. However pleural effusion related to AS serositis is an extremely rare condition. Here we report a case of pleural effusion initially thought to be due to tuberculous infection, later it was attributed to ankylosing spondylitis. Our patient was a 35-year-old male recently diagnosed with ankylosing spondylitis presented with sudden onset of difficulty in breathing and fever for 1 day. Physical examination revealed bilateral pleural effusion. Chest x-ray confirmed the presence of bilateral pleural effusion (left > right). Inflammatory markers were high. Pleural fluid analysis demonstrated exudative lymphocytic pleural effusion. Pleural fluid ADA was 52 IU/L. Chest drain was inserted at peripheral hospital as patient was severely dyspnoeic at presentation. Initially patient was treated with intravenous broad spectrum antibiotics due to suspicion of parapneumonic effusion, but patient didn't show any improvement. As high ADA supported the diagnosis of tuberculous pleural effusion, antituberculous therapy (ATT) was commenced. Even with ATT patient had persistent symptoms with high inflammatory markers. Finally, oral steroid was started as we suspected the diagnosis of AS related pleural effusion. He showed dramatic response to steroid treatment and improved clinically and biochemically.