A case of intractable pneumothorax in a patient with rheumatoid arthritis

대전을지대학교병원 호흡기내과

박현웅, 한민수

A 73-year-old male with a history of seropositive rheumatoid arthritis (RA) was transferred to our hospital due to a right pneumothorax (Fig. 1). The patient was taking methylprednisolone and methotrexate (MTX) for 3 years. At the emergency department, a chest tube was inserted and a computed tomography (CT) scan of the chest revealed a right hydropneumothorax and irregularly enhanced pleural thickening with internal nodules, interval increased size of nodules in left lower lobe compared to the CT scan taken 2 years ago (Fig. 2). Since air leak persisted for 5 days, a video-assisted thoracoscopic surgery was performed to identify the presence of bronchopleural fistula (BPF) and to rule out malignancy or infection. The BPFs were found at upper and anterior site, so intraoperative sealant packing and the biopsy of the right pleura and both lungs were done. Histopathology showed chronic granulomatous inflammation with necrosis in lung periphery and pleura, central necrobiotic area with nuclear debris, collagen fibers, cholesterol clefts, and fibrosis suggesting rheumatoid nodule (Fig. 3, 4). There was no evidence of malignancy and acid-fast bacilli stain was negative. Despite of intraoperative treatment of the BPFs, air leak sustained for more than a month and a follow-up CT scan showed increased amount of right hydropneumothorax, pneumonic consolidation. Treatment with antibiotics did not lead to improvement. Unfortunately, the patient was transferred to other hospital on his own volition. It is known that pulmonary and pleural rheumatoid nodules are rarely developed in patients with RA, but sometimes can cause pneumothorax, empyema, and BPF when ruptured into the pleural cavity. It is important to find out the presence of pleural or pulmonary nodules in patients with RA who present with a pneumothorax, and pathologic confirmation should be performed to rule out malignancy or mycobacterial infection.