

## A case report with *Pneumocystis Carinii* Pneumonia in a patient with Lung cancer

경희대학병원 내과

임소진, 최혜숙

**Introduction:** *Pneumocystis carinii* pneumonia is a disease with a high mortality rate and the most common opportunistic infection that occurs in patients with advanced human immunodeficiency virus infection primarily. PCP becomes more frequent with non-HIV patients, but there is no widespread knowledge of pneumococcal infection in patients who have not been diagnosed HIV and have not been treated for immunosuppression.

**Case Presentation:** A 64-year-old man who was not HIV patient was diagnosed with adenocarcinoma and hospitalized for thoracic surgery department for surgical treatment. He had RUL lobectomy and had treatment with levofloxacin empirically. After operation, in high-resolution computed tomography, the thickening and multifocal GGO patterns in both lung fields were showed and could be suspected atypical pneumonia. At POD 15th, the symptoms were aggravated, he was transferred in respiratory intermedicine department. After that, pleural thickening or loculated pleural effusion and pathy opacity at RLLZ were observed. Next day, PCP PCR was positive in Bronchial alveolar lavage, so he was diagnosed with PCP. After that, he received treatment with steroid(IV) 50mg for at least first 5 days and therapeutic dose of Trimethoprim + sulfamethoxazole(TMP/SMX). After 5 days, steroid dose was tapering off over the next 3 weeks and discharged after the symptoms and radiologic sign were improved.

**Discussion:** PCP is an opportunistic infection that occurs in immunosuppressed populations, primarily patients with advanced human immunodeficiency virus infection. PCP is diagnosed through sputum, bronchoalveolar lavage or transbronchial lung biopsy. The first treatment is trimethoprim-sulfamethoxazole and adjunctive corticosteroid therapy has improved survival rate. PCP development was significantly associated with RTx, CCRTx and high-dose steroid therapy. The patient is not immunosuppressed patient because anti-HIV antibody was negative and steroid or chemotherapy was not performed other than surgical treatment. SO immunological mechanisms and prognosis that cause pneumococcal pneumonia after surgery for lung cancer are tasks to be studied in the future.



Figure 1. Chest PA at admission date. The RUL mass was showed.

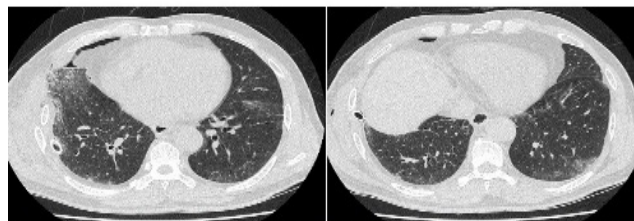


Figure 2. High-resolution computed tomography on admission. The multifocal ground glass opacity patterns of interstitial pulmonary lobules in both lung fields.



Figure 3. Chest x-ray at transfer date(A) and discharge date(B). The pleural thickening or loculated pleural effusion and pathy opacity at RLLZ is observed were showed and improved later.