

A case report of an IgG4 related disease mimicking lung cancer with pleural metastasis

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Introduction: IgG4-related disease (IgG4-RD) is an insidiously progressive immune-mediated fibrotic disease. Although IgG4-RD is diagnosed as abundant IgG4 positive plasma cell and fibrosis, it might be misdiagnosed as cancer, and other inflammatory conditions. Here, we report a case of possible IgG4 related disease mimicking lung cancer with pleural metastasis in 80-year-old male.

Case: The patient was an 80-year-old man with 16 pack-years of smoking history. He visited the emergency department because of dyspnea on exertion (mMRC grade 2) aggravated for eight days. On the chest X-ray, there was right pleural effusion and mass-like consolidation in the right upper lung field. Chest computed tomography (CT) revealed a lobulated central mass at the right upper lobe (RUL) and multiple mediastinal lymph node enlargements (Figure 1). Our initial assessment was lung cancer with pleural metastasis. The pleural fluid analysis suggested lymphocyte dominant exudate and ADA level was 61.4 U/L. Pleural fluid cytology showed negative for malignant cells. To exclude pulmonary tuberculosis, bronchoscopic transbronchial lung biopsy (TBLB) and lymph node biopsy by endobronchial ultrasonography were done. Acid-fast bacilli stain and Xpert PCR were negative and TBLB showed organizing pneumonia. Because diagnosis was uncertain, We did CT guided lung biopsy. Biopsy revealed dense lymphoplasmacytic infiltration (Figure 2-A). Despite repeated biopsy, there was no evidence of malignancy. Serum IgG4 level was 135 mg/dL and tissue IgG4 stain showed positive results (Figure 2-B). Based on these findings, he was diagnosed with IgG4 related disease. After intravenous methylprednisolone administration, his symptoms were relieved and He was discharged with oral prednisolone. 2 months later, RUL mass and pleural effusion disappeared at follow-up chest CT (Figure 3).

Conclusion: This case implies that IgG4-RD can mimic tumorous conditions, and we should consider it as differential diagnosis for lung mass especially when repeated biopsy results showed negative for malignancy.

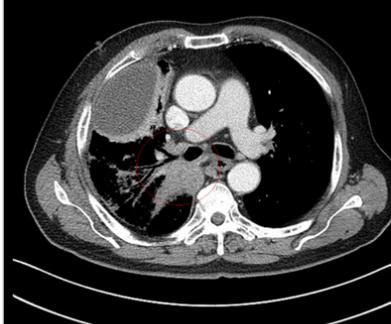


Figure 1

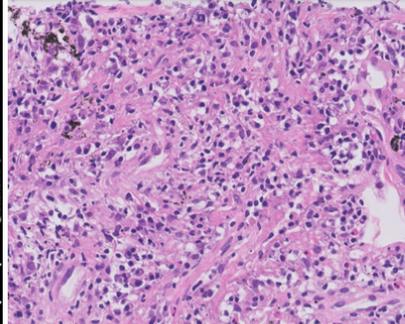


Figure 2-A



Figure 3

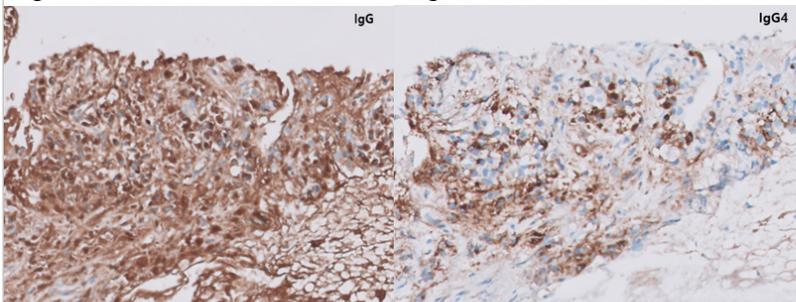


Figure 2-B