

## Imaging

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### Unusual Presentation of Bronchiolitis Obliterans Organizing Pneumonia Mimicked Pulmonary Metastases: A Case Report

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**INTRODUCTION:** The radiological presentation of bronchiolitis obliterans organizing pneumonia (BOOP) is characterized by multiple air space consolidations with a subpleural distribution or areas of ground glass lung infiltration. We report a case of BOOP presenting with a multiple nodular pattern mimicking miliary metastasis lung infiltration.

**CASE PRESENTATION:** A 47-year-old man presented with cough. He was a current smoker for 35 years. He had COPD and DM. Vital signs were normal. Chest X-ray showed bilateral nodular opacities. Thorax computed tomography; predominantly in the upper lobe, bilateral, multiple pulmonary nodules (the largest 20 mm) with variable border features were detected, some of which were frosted glass densities (Fig.1). Mediastinal (10 mm in diameter), right suprahilar (15 mm in diameter) and both axillar lymph nodes were present. Serological tests were normal. Mycobacterium tuberculosis was negative. PET/CT: Several millimetric lymph nodes without mediastinal pathologic FDG involvement were observed. A large number of nodules were observed in both lung parenchyma, some of which were calcified, with mildly elevated FDG uptake (Early SUV max: 2,18, Late SUV max: 3,14) (Fig.1). Lung biopsies with wedge resection were performed under video-assisted thoracoscopy(VATS). Histopathological analysis consistent with BOOP (Fig.2). The patient underwent steroid therapy at a dose of 48 mg / day with the diagnosis of BOOP. At 3 months of treatment, control CT completely removed. The steroid treatment was stopped at 4 months because of uncontrolled diabetes mellitus. The patient was followed-up for one year, and the disease did not relapse.

**DISCUSSION:** Heterogenic radiologic features on X-ray and on CT scan make correct diagnosis difficult, sometimes resulting in ineffective therapy and unnecessary hospitalization. Most often, CT scan shows unilateral or bilateral airspace consolidation with a predominantly peripheral distribution in lower and middle zones. Contrary to the common radiological findings in our case, there were bilateral multifocal nodules with predominantly upper lobes. In pet ct; metastatic disease can not be excluded due to increased metabolic activity in late images. Therefore, histopathological confirmation is required. We did not find any reports that bronchiolitis obliterans organized pneumonia pet ct findings. It may be said that boop pet ct findings may interfere with malignancy.

**CONCLUSIONS:** In conclusion, our patient had an unusual radiological pattern of bilateral pulmonary nodules associated with COP that mimicked pulmonary metastases. Its radiological and nuclear properties can lead to misdiagnosis like malignancy.

**Reference #1:** American Thoracic Society/European Respiratory Society International Multidisciplinary Consensus Classification of the Idiopathic Interstitial Pneumonias. Am J Respir Crit Care Med. 2002;165:277-304.

**DISCLOSURE:** The following authors have nothing to disclose: Demet Polat, Eylem Ozgur, Sibel Atis Nayci, Tuba Kara, Feramuz Apaydin, Pelin Özcan

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