

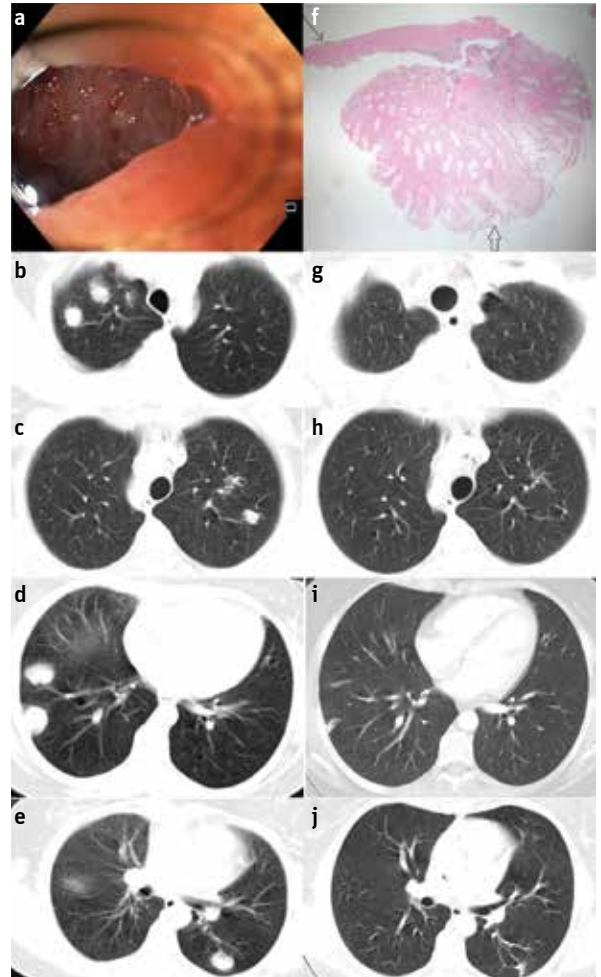


## Crohn's disease presenting as multiple pulmonary nodules in FDG PET/CT scan

To the Editor,

A 30-year-old woman with a 10-pack-year smoking history was referred to our hospital as a consequence of metastatic lung nodules and increased 18F-FDG uptake in the terminal ileum in positron emission tomography (PET)/computed tomography (CT). She had a history of chest pain and pain in the left shoulder for 3 months. She had no diarrhea or abdominal pain. Colonoscopy showed multiple aphthous ulcers throughout the colon and longitudinal ulcers at the distal terminal ileum with stenosis of the valve, which could not be intubated (Figure 1a). Thorax CT revealed multiple pulmonary nodules 1-2 cm in size, which were subcarinal, and paratracheal lymphadenopathies (Figure 1. b-e). Biopsies of the colon and ileum suggested inflammatory bowel disease (Figure 1f). A percutaneous transthoracic CT-guided needle biopsy sample was obtained from the nodule on the lower lobe of the left lung. Needle biopsy showed fibrosis and necrosis that mimicked lung involvement of Crohn's disease (CD). Treatment with azathioprine 2 mg/kg/day, budesonide 9 mg/day, and mesalazine 3 g/day was initiated. Six months after the treatment, a repeat CT scan of the chest showed complete resolution of the lung nodules (Figure 1. g-j). Budesonide was gradually discontinued, other drugs were continued.

Crohn's disease is a granulomatous systemic disorder arising from an interaction between genetic and environmental factors, commonly involving the gastrointestinal tract. Extraintestinal manifestations are observed approximately in 35% patients (1,2). The most common manifestations include arthritis, erythema nodosum, pyoderma gangrenosum, and primary sclerosing cholangitis. Although, the lungs are believed to be rarely affected, there is growing evidence of pulmonary involvement in inflammatory bowel disease (IBD)



**Figure 1. a-j.** Endoscopic view, showing longitudinal ulcers in the distal terminal ileum with stenosis of the valve (a). Thorax CT scan showing multiple pulmonary nodules (b,c,d,e). Ileal ulcer (thin arrow) and crypt distortion (thick arrow) (Hematoxylin and eosin stain, x20) (f). The follow-up chest CT obtained 6 months after treatment showed an almost complete resolution of the nodules observed at presentation (g,h,i,j).

(3). Bronchiectasis, granulomatous lung disease, and interstitial fibrosis and pneumonitis have been described as pulmonary manifestations occurring in patients with

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**Received:** July 08, 2014

**Accepted:** December 28, 2014

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IBD (4). On the other hand, there are only a few cases of necrobiotic pulmonary nodules associated with CD reported (5). Pulmonary involvement in CD can be recognized before, after, or concurrently with the onset of bowel disease.

**Ethics Committee Approval:** N/A.

**Informed Consent:** Written informed consent was obtained from the patient who participated in this study.

**Peer-review:** Externally peer-reviewed.

**Author contributions:** Concept - M.K., Ö.K.K., E.P.; Design - M.K., E.P., G.C.; Supervision - Ö.K.K., K.G., E.D.; Resource - G.Ö., K.G., E.D.; Materials - G.Ö., E.D., E.P.; Data Collection &/or Processing - E.P., E.D., G.Ö.; Analysis &/or Interpretation - M.K., G.C., B.Y.; Literature Search - E.P., B.Y., U.K.; Writing - E.P., M.K., G.C.; Critical Reviews - M.K., U.K., Ö.K.K.

**Conflict of Interest:** No conflict of interest was declared by the authors.

**Financial Disclosure:** The authors declared that this study has received no financial support.

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