

European Respiratory Society Annual Congress 2013

Abstract Number: 3081
Publication Number: P2259

Abstract Group: 1.3. Imaging

Keyword 1: Imaging **Keyword 2:** Elderly **Keyword 3:** Air pollution

Title: Isolated anthracosis: A benign but little-known cause of bronchial stenosis and obstruction

Dr. Shahram 16891 Kahkouee raminpgh@gmail.com MD ¹, Dr. Ramin 16892 Pourghorban ramin_p2005@yahoo.com MD ¹, Dr. Mahdi 16893 Bitarafan mahdi_bitarafan024@yahoo.com MD ¹ and Leila Mosadegh bestlala@yahoo.com ¹. ¹ Department of Radiology, National Research Institute of Tuberculosis and Lung Diseases, Masih Daneshvari Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Islamic Republic of Iran, 1989934148 and ² Department of Pulmonary Medicine, National Research Institute of Tuberculosis and Lung Diseases, Masih Daneshvari Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Islamic Republic of Iran, 1989934148 .

Body: Bronchial anthracosis is defined as black tattoos in mucosal layer possibly due to dust exposure or air pollution. It usually results in bronchial narrowing or obstruction in elderly Asians; thus, may mimic bronchogenic carcinoma. 111 patients with proved anthracosis, based on findings in bronchial biopsy specimens, were enrolled. After excluding those with tuberculosis, malignancy, smoking-related lung diseases and chronic bronchitis, CT findings of the remaining 58 patients (female, 29; mean age, 70.2; smoker, 12); designated as isolated anthracosis, were evaluated. We highlighted central peribronchial soft tissue thickening (63.8%), causing bronchial narrowing (63.8%) or obstruction (19%). Bronchial narrowing affected multiple bronchi in some cases (two bronchi, 12 patients; three bronchi, 9 patients; five bronchi, 2 patients) and segmental atelectasis (46.6%), lobar (22.4%) or multilobar (3.4%) collapses were ensued. Findings mostly occurred in the right middle lobe. Air trapping, mosaicism and some other nonspecific findings like scattered parenchymal nodules, nodular infiltration and calcified or non-calcified lymph nodes were also appreciated.

Although bronchial narrowing and peribronchial soft tissue thickening may raise the suspicion of malignancy in elderly patients; anthracosis may also be considered, especially in non-smokers when multiple bronchial involvement and other related imaging findings are identified.