A 33 year old man with pulmonary tuberculosis presented with fever and cough with purulent blood tinged expectoration of 5 days. Clinically found to have deviation of trachea to right, and coarse crepitation in the lung fields. The contrast enhanced computer tomographic (CECT) images (image-1) of thorax showed traction bronchiectasis of the right upper lobe, granuloma in the left upper lobe; ground glass appearance and tree-in-bud appearance in the rest of the lungs. Image-1. CECT images (Panel A & B) showing traction bronchiectasis of the right upper lobe (rightward directed white block arrows), granuloma in the left upper lobe (leftward directed white block arrows), ground-glass appearance of parenchyma (downward directed white block arrow) and tree-in-bud appearance (upward directed white block arrows).

Even though pulmonary tuberculosis is very common in developing countries like India, clinicians often tend to underdiagnose. The radiological features of pulmonary tuberculosis at times are subtle or maybe similar to other granulomatous diseases involving the lung. The radiological features occur due to active infection, its sequelae or complications. The manifestations usually involve the lung parenchyma, bronchial tree, pleura, chest wall, mediastinum or a combination of all. The initial radiological features are nodules, granulomas, cavities, ground-glass appearance or pleural effusions. Some of the commonly occurring late features are parenchymal or pleural fibrosis, tree-in-bud appearance, cavities, bronchiectasis, empyema, collapse, fibro-thorax or broncho-pleural fistulas.

References: