Picture This
Imaging & Beyond by Jankharia
CELEBRATING 50 YEARS

INNER SPACES
Edited by Dr. Bhavin Jankharia

December 2024 | Vol. 18 | No. 12

RNI No.: MAHENG/2006/17782

Posted at Mumbai Patrika Channel Sorting Office Mumbai 400 001

In How Many Ways can Tuberculosis Affect the Chest

Traditional teaching in tuberculosis imaging has been to differentiate between primary and post-primary TB. Primary TB presents with a focal lung lesion, adenopathy (Ghon focus or Rathke complex) or pleural effusion while post-primary/reactivation disease presents with cavitation, nodules, upper lobe disease.

However, this theory has been called into question because of the overlap of findings in many instances. TB does not follow textbook theory and there is no evidence of a classic linear movement from primary to post-primary.

The immune status makes a difference. Being immunocompromised in any manner (nutritional, disease) can lead to a resurgence of TB with a disease pattern characterized by lower zone lesions, effusions, nodes and miliary disease while reactivation in an immunocompetent person often presents with cavities, nodes and upper lobe disease.

Even then, the sequence of events, does not always follow classic criteria as seen in this 21-years old girl (Fig. 1) who has evidence of old disease along with miliary (hematogenous), airway and tree-in-bud (airway) and florid adenopathy (spread from lung or hematogenous?). How do hematogenous and airway dissemination occur at the same time? These mixed patterns are often seen and it is important to be aware of the various ways in which TB can affect the thorax.

In How Many Ways can Tuberculosis Affect the Chest

Picture This
Imaging & Beyond by Jankharia
CELEBRATING 50 YEARS

At a glance

- TB does not follow classic textbook theories of primary to post-primary and immune status makes a difference to the way TB presents
- It is important to be able to differentiate among hematogenous (miliary) and airway spread (transbronchial, peribronchial) and other manifestations (nodes, pleural effusion), both from the treatment perspective, as well as the infectiousness of the person, especially to those around them.

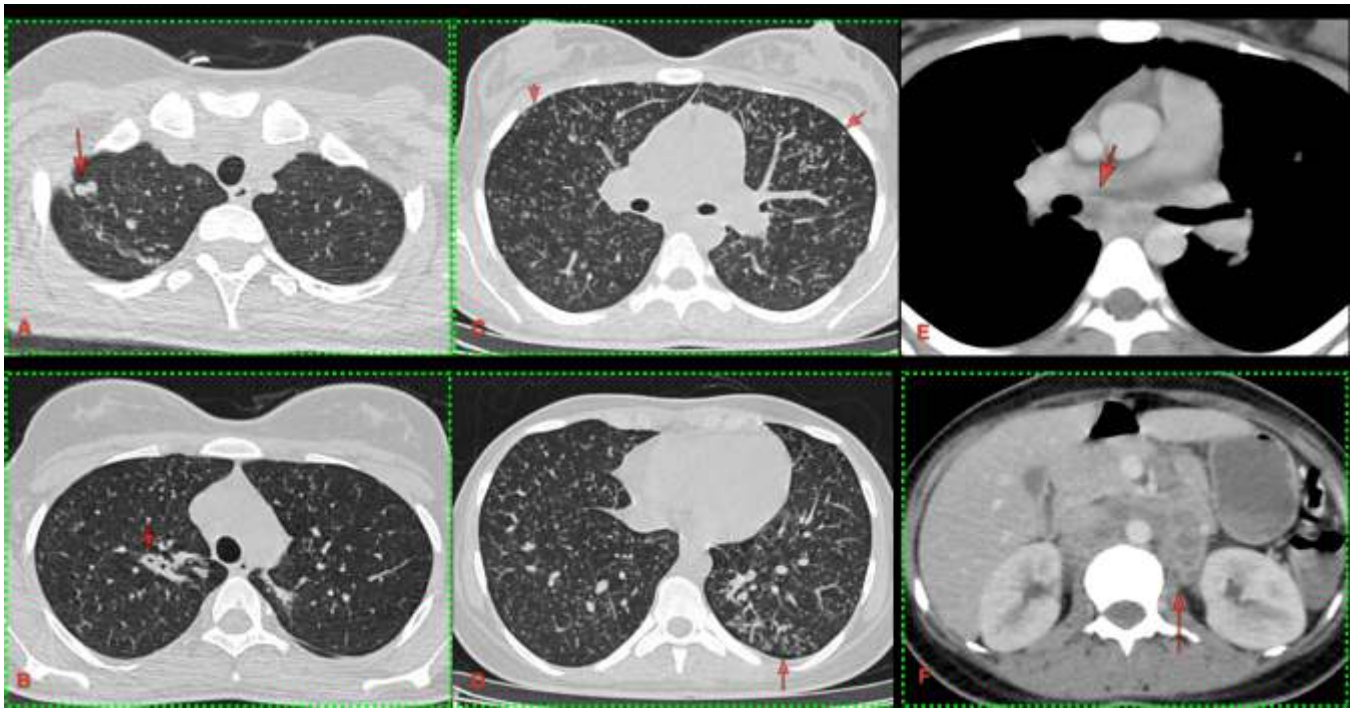

Fig. 1 (A-F). Tuberculosis. Multiple different manifestations in this 21-years old. Axial CT (A) through the upper lobes shows evidence of old infection with a fibronodular lesion (arrow). The next image (B) also through the upper lobes, shows peribronchial thickening and tubular bronchiectasis (arrow), suggestive of airway involvement. The next image (C) in the infracarinal mid-zones shows classic miliary nodules (arrow), suggestive of hematogenous spread. The next image (D) through the lower lobes, shows classic "tree-in-bud" (arrow), suggesting airway or transbronchial spread or dissemination (infectious bronchiolitis). A delayed contrast study (E) shows a necrotic subcarinal node and the last contrast study (F) through the upper lobe, shows large, conglomerate retroperitoneal nodes. The patient also had miliary splenic nodules and hepatomegaly.

Subscribe to INNER SPACES : info@jankharia.com
Online version : https://www.picture-this.in/inner-spaces/

Main Clinic
383 | Bhaveshwar Vihar | Sardar V. P. Road | Prarthana Samaj | Charni Road | Mumbai 400 004 | **T:** 022 66173333

Cardiac, Chest & Interventional Twin Beam CT
Nishat Business Centre | Arya Bhavan | 461 | Sardar V. P. Rd | Next to Marwari Vidyalaya | Mumbai 400 004 | **T:** 022 6848 6666

PET / CT, Organ Optimized 3T MRI
Gr. Floor | Piramal Tower Annexe | G. K. Marg | Lower Parel | Mumbai 400 013 | **T:** 022 6617 4444

Printed, Published & Owned by Dr Bhavin Jankharia,
Printed at : India Printing House, First Floor, 42, G D Ambedkar Marg, Opp. Wadala Post Office, Wadala, Mumbai 400 031
Published from: Dr Jankharia's Imaging Centre, Bhaveshwar Vihar, 383, Sardar V P Road, Prarthana Samaj, Mumbai 400 004, M.S,
Editor: Dr. Bhavin Jankharia