

## CT

1

: CT .

: 3 CT

16 ( : =2:14, : 72 ) CT

: CT 가 (n=15)

(n=16)가 (n=2), (n=7), 가 (n=12), 가 (n=4), (n=10), (n=3)

64 ,

4 .

: CT 1) 2) 4)

3) , 가

, 가 .

가 가 CT 가 2 , 가 14 72 .

28 (1 - 76 )

(1).

가 가 6 , 1 12 .

2 , 1

가 (1, 2).

3 가 6 ,

가 8 , 14

가 2 .

2003 5 2006 3

276

(CT)

16

. 16 4

CT (Somatom Plus S, Siemens Medical systems, Erlangen, Germany; LightSpeed Plus, GE medical systems, Milwaukee, U.S.A.) 1 mm

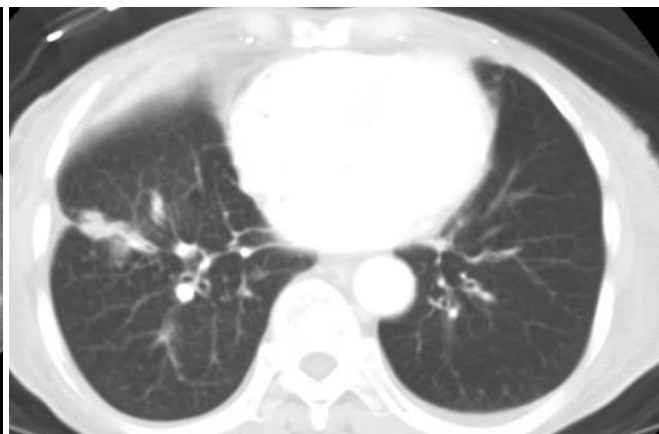
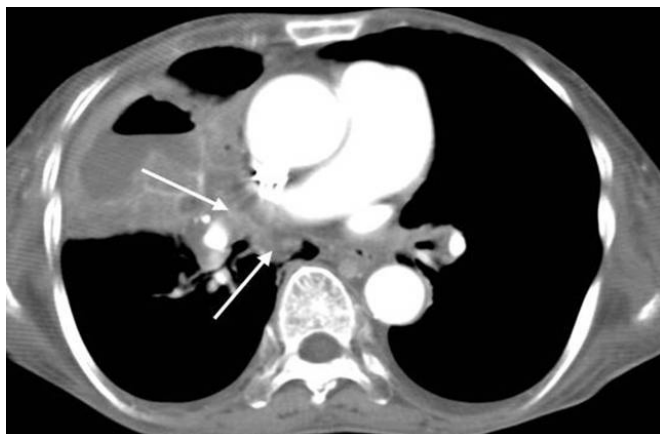
1.25 mm , 10 mm (High resolution computed tomography: HRCT) 100 -

120 mL 2.5 - 3 mm/sec  
 30 7.5 - 8 mm , 7.5 - 8 mm  
 (picture archiving and communi - cating system:  
 PACS) (1,500 HU, - 600 HU)  
 (400 HU, 40 HU) 가

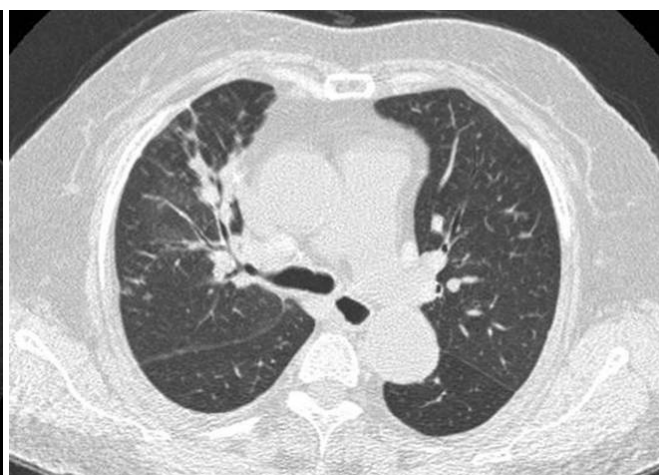
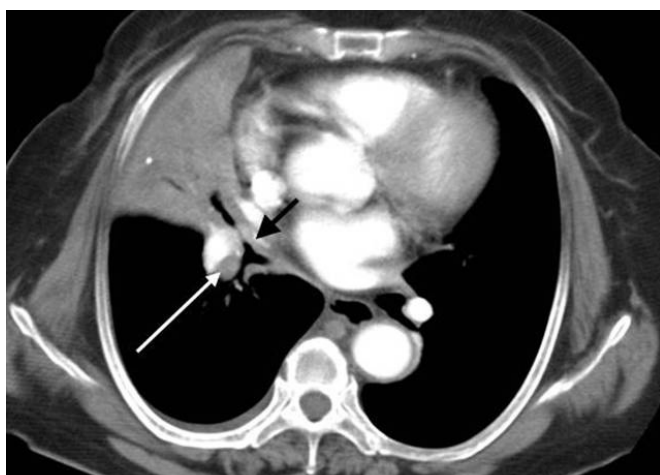
: CT  
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 6  
 283

CT , 가 (tree - in - bud),  
 , ,

CT 가 5 ,  
 가 9 , 2



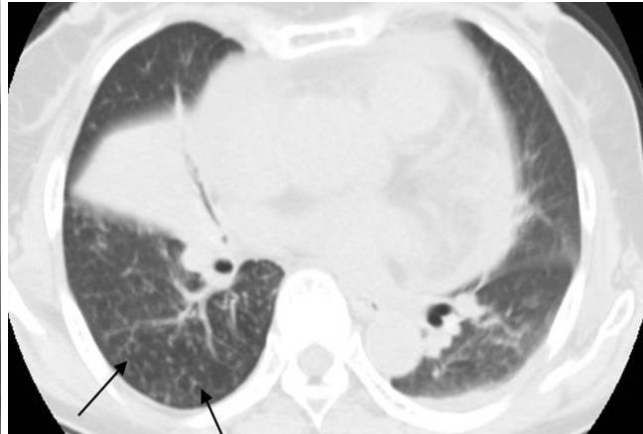
**A**  
**Fig. 1.** A 79-year-old woman presented with general weakness.  
**A.** Note diffuse consolidation with a large irregular cavity in the right middle lobe. The right middle lobe bronchus is not defined and there is no obstructing mass lesion. Enlarged peribronchial lymph nodes are also noted (arrows).  
**B.** Nodules and centrilobular nodules are seen in the right lower lobe. Sputum smear for acid-fast bacilli was negative but and *M. tuberculosis* grew in the sputum culture.



**A**  
**Fig. 2.** A 74-year-old woman presented with dyspnea.  
**A.** Chest CT shows collapse and consolidation of the right middle lobe without an obstructing mass lesion. Note irregular narrowing of the middle lobe bronchus (black arrow) and enlarged peribronchial lymph node (arrow).  
**B.** Nodules and subtle centrilobular nodules are seen in the right upper lobe. Sputum smear for acid-fast bacilli was positive and *M. tuberculosis* grew in the sputum culture.



A



B



C



D



E

**Fig. 3.** A 64 year-old-woman presented with dyspnea.

**A.** Frontal chest radiograph shows right middle lobe collapse and cardiomegaly  
**B.** Chest CT shows right middle lobe collapse and smooth narrowing of the middle lobe bronchus. Multiple centrilobular nodules with branching linear structures are seen in right lower lobe (arrows).

**C, D.** Note an enlarged lymph node in right peribronchial area (arrow in C) and pericardial effusion (D).

**E.** Follow-up chest radiograph obtained after 8 months reveals nearly complete resolution of the right middle lobe collapse and a normal sized heart shadow. Sputum smear for acid-fast bacilli was negative. Bronchial aspirate culture showed *M. tuberculosis* growth.

가 (Fig. 1) 가 , CT

CT 가 1 , 가 (5).  
2 , 5 , 가 8 .

CT (Fig. 2). 가 (6)  
16 12 가 (6, 7). 가

(Fig. 3). 5 가 (1, 8).  
, 4 가  
, 가 64 ,

15 가 .  
9 가 CT 16 11  
28 ,

7 가 . 가  
16 가 1 . 가 16 4  
14

7 5 .  
3 , . Moris (9) 가  
1 , 2 , CT 가  
가

2 . 가 (1, 10). 10  
. 8 3-4  
5 가  
8 , 2 가  
1 , 5 , 가  
가

CT (3). 16 15  
CT

30 - 40% 가 .  
(3, 4). 5  
가 (2, 4, 5). Lee 가 (11, 12).  
가 CT 15

(1) 가  
. Perez - Guzman (5) 가



## Pulmonary Tuberculosis Involving the Right Middle Lobe of the Lung: CT and Clinical Characteristics<sup>1</sup>

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**Purpose:** To describe the CT and clinical features of tuberculosis involving the right middle lobe of the lung.

**Materials and Methods:** Among patients diagnosed with pulmonary tuberculosis at our hospital during the past three years, 16 cases (mean age of patients: 72 years) were reviewed for radiological and clinical presentation of patients that underwent CT and chest radiography and showed mainly right middle lobe involvement.

**Results:** Middle lobe collapse or consolidation ( $n=16$ ) and bronchial stenosis or obstruction without the presence of soft tissue masses ( $n=15$ ) were the main findings. Enlarged mediastinal or hilar lymph nodes ( $n=15$ ), cavities within consolidated tissue ( $n=2$ ), ill-defined centrilobular nodules ( $n=12$ ), a tree-in-bud appearance ( $n=10$ ), focal consolidations ( $n=7$ ) and small nodules ( $n=4$ ) were found. All patients were older than 64 years and most complained of non-specific symptoms. A sputum smear for AFB was positive in four cases.

**Conclusion:** A diagnosis of tuberculosis in the right middle lobe is suggested in older patients with following CT findings: 1) middle lobe collapse or consolidation; 2) middle lobe bronchus stenosis or obstruction without the presence of soft tissue masses; 3) mediastinal or hilar lymphadenopathy; 4) cavities within consolidation, and centrilobular nodules with branching linear structure in the adjacent lungs. Further evaluation such as bronchoscopy is recommended for confirmation even when the sputum smear for AFB is negative.

**Index words :** Tuberculosis

Lung, diseases

Lung, CT

Tuberculosis, pulmonary

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