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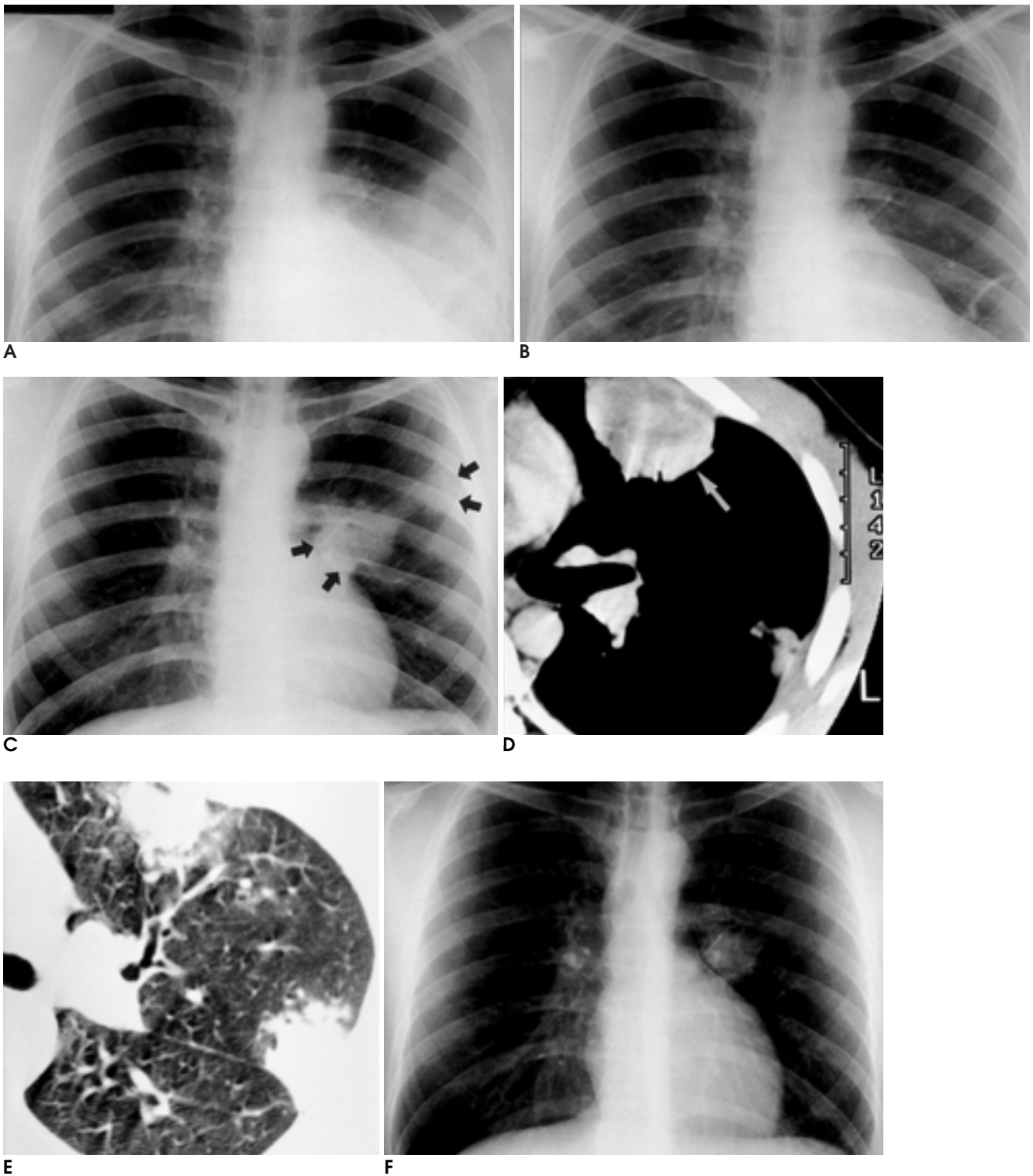


Fig. 1. Tuberculous pleural effusion in a 30-year-old man.

A, B. Initial chest radiograph (**A**) shows large amount of left pleural effusion. On post-thoracentesis radiograph (**B**), there is no evidence of pulmonary lesions. The patient was diagnosed as tuberculous pleural effusion and antituberculous chemotherapy was started.

C. Follow-up radiograph obtained 3 months after **A** shows two ill-defined masses in left middle lung zone (arrows).

D, E. Contrast enhanced CT scan (**D**) obtained at the level of masses observed on radiograph three days after **C** shows wedge-shaped mass (arrow) showing heterogeneous enhancement abutting on pleura. Lung window image (**E**) shows two wedge-shaped ill-defined masses abutting on pleura, in association with surrounding ground-glass opacity and satellite nodules. Histologic examination with percutaneous transthoracic lung biopsy of the mass demonstrated granulomatous inflammation with caseation necrosis.

F. Follow-up radiograph obtained 4 months after **C** shows decreased sizes of masses in left midlung zone.

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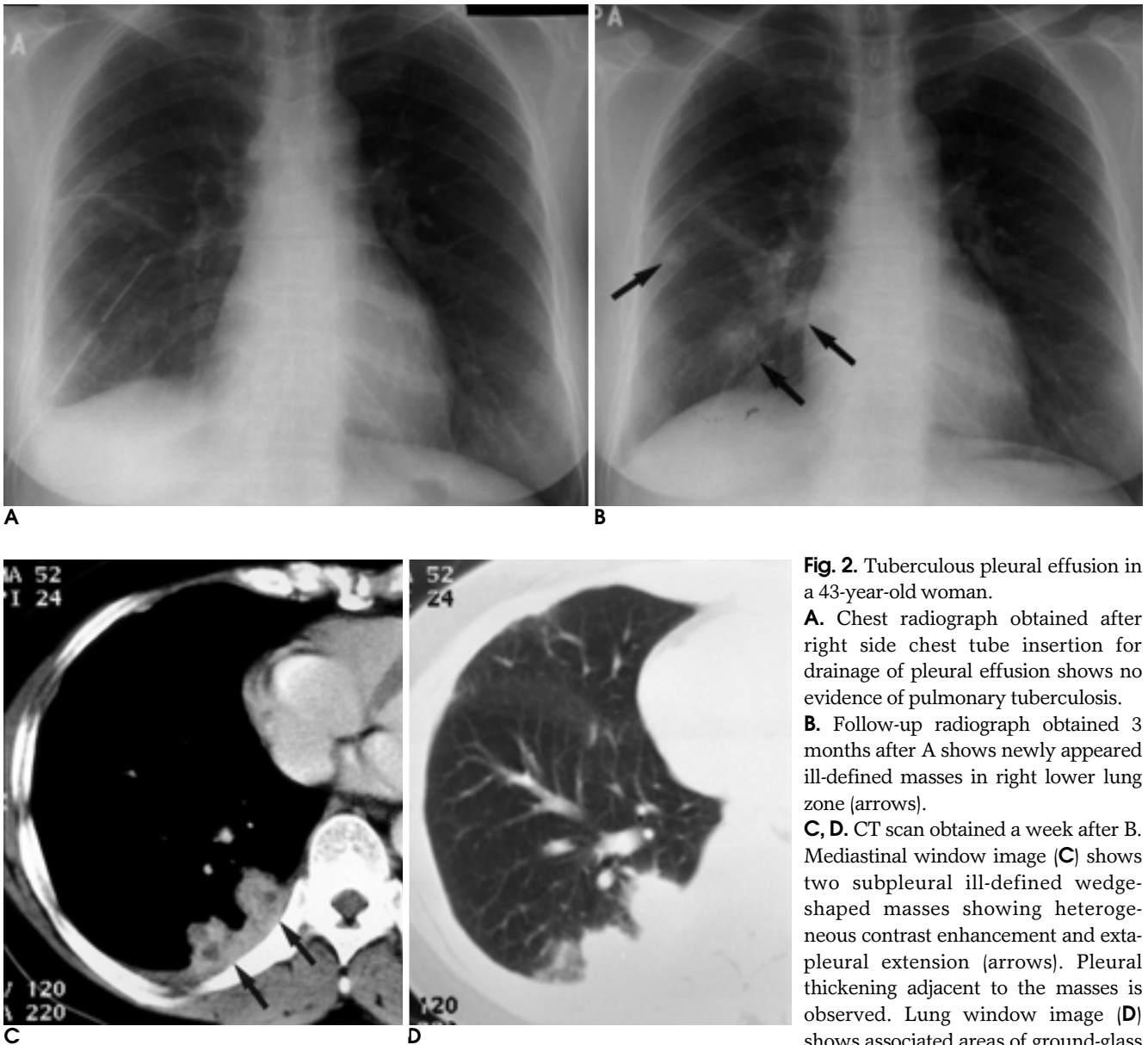


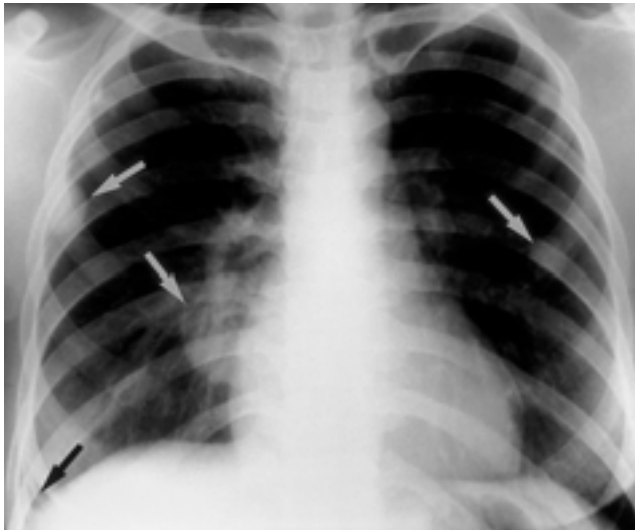
Fig. 2. Tuberculous pleural effusion in a 43-year-old woman.

A. Chest radiograph obtained after right side chest tube insertion for drainage of pleural effusion shows no evidence of pulmonary tuberculosis.

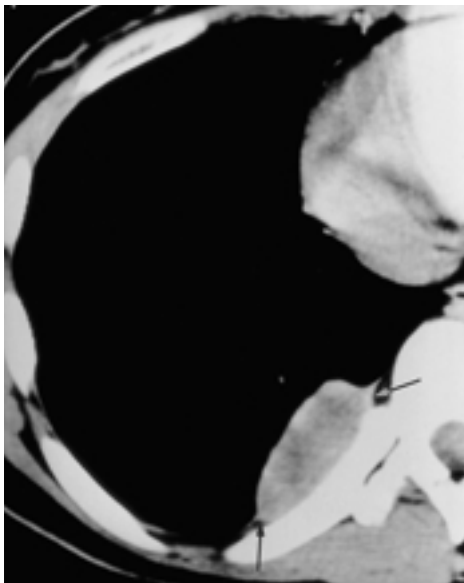
B. Follow-up radiograph obtained 3 months after A shows newly appeared ill-defined masses in right lower lung zone (arrows).

C, D. CT scan obtained a week after B. Mediastinal window image (**C**) shows two subpleural ill-defined wedge-shaped masses showing heterogeneous contrast enhancement and extrapleural extension (arrows). Pleural thickening adjacent to the masses is observed. Lung window image (**D**) shows associated areas of ground-glass opacity and satellite nodules around the masses.

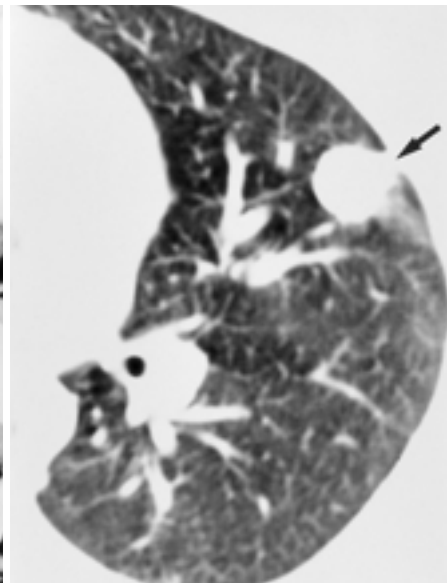
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Fig. 3. Tuberculous pleural effusion in a 27-year-old woman.

A. Chest radiograph obtained 5 months after development of sub-pleural tuberculomas during antituberculous therapy shows multiple well-defined nodules in both lungs (white arrows). Right pleural thickening is observed (black arrow). Initial radiograph showed bilateral pleural effusions.

B, C. CT scan obtained at the same time with A. Contrast-enhanced CT scan (**C**) at level of lower lung zone reveals ovoid shaped mass with central low density and peripheral rim-enhancement. Extrapleural extension of mass is observed (arrows). Lung window image (**C**) obtained at level of midlung zone shows intrapulmonary nodule in peripheral lung (arrow).

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Newly Appearing Tuberculous Pulmonary Masses during Antituberculous Treatment of Tuberculous Pleurisy: Radiographic and CT Findings¹

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Purpose: To evaluate the imaging findings of tuberculous pulmonary masses developing during antituberculous treatment of tuberculous pleurisy.

Materials and Methods: The serial chest radiographs of 134 patients with tuberculous pleurisy were retrospectively assessed by two observers who recorded the presence of pulmonary masses observed on follow-up radiographs with their imaging findings. Four patients underwent chest CT scans.

Results: On chest radiographs, 29 masses were observed in 14 patients (10.4%) comprising seven men and seven women aged 21 - 52(mean, 33) years. The interval between the onset of pleurisy and the development of masses varied between 1 and 7 months. The lesions were single in nine patients and multiple in five; all developed in the hemithorax affected by pleurisy and 21 were located subpleurally. The CT scans obtained in four patients, demonstrated 14 masses in the peripheral lung. The location of ten of these was subpleural; eight of the ten showed extrapleural extension, and associated satellite nodules and ground-glass opacity were observed in six. Contrast-enhanced CT scans showed that enhancement pattern was peripheral in five, heterogeneous in five and homogeneous in four. Follow-up radiography indicated that all masses had become smaller.

Conclusion: Tuberculous pulmonary masses may develop during antituberculous treatment of tuberculous pleurisy as single or multiple masses. Characteristically, a peripheral or subpleural pulmonary location is noted, and the CT findings include heterogeneous or peripheral rim enhancement, extrapleural extension and associated ground-glass opacity or satellite nodules.

Index words : Pleura, fluid
Thorax, CT
Thorax, radiography
Tuberculosis, pulmonary

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