

ROUND PNEUMONIA

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Key-word: Pneumonia

Background: A 55-year-old male smoker (60 pack-years) presented to the emergency department with the complaint of high fever and cough for two days. His medical history revealed that he had seizures for ten years and was been suffering from Parkinson's disease for 3 years. On physical examination he was tachypneic and febrile. Complete blood count revealed elevated white blood cell count ($14200/\text{mm}^3$). The results of the serum biochemistry tests were within normal limits.

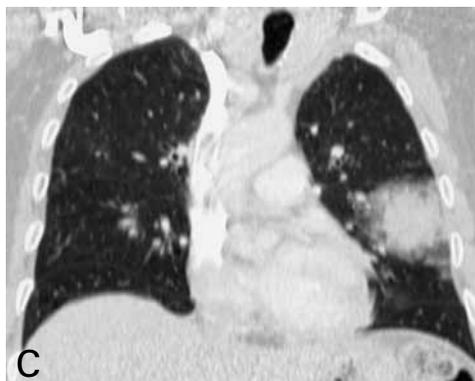
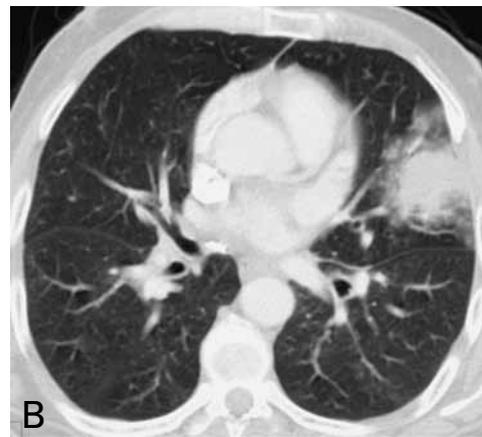
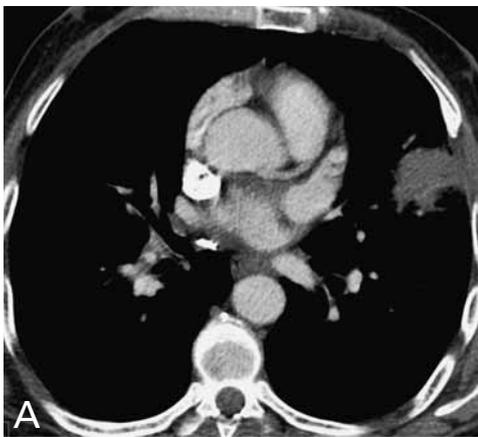


Fig.

	1	
2A		2B
	2C	

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Work-up

On scout view of the chest (AP view) (Fig. 1) a homogeneous mass in the left mid-lung zone is observed.

CT scan of the thorax (Fig. 2) shows on transverse section at the level of the aortic root (mediastinal window setting) (A), transverse section at the level of aortic root (lung window setting) (B), and MPR image, in the coronal plane (lung window setting) (C) a focal area of round consolidation abutting the pleura with surrounding ground-glass attenuation in the lingula.

Radiological diagnosis

Based on the clinical and imaging findings, *round pneumonia* was diagnosed. The patient was hospitalized and treated with a 14-day course of ceftriaxone 2 x 1 gr/day. The consolidation resolved on follow-up CT scan after two weeks.

Discussion

Round pneumonia, defined as an oval or round shaped consolidation in a nonsegmental pattern, is a rare form of lung infection. Although it is a well-recognized entity in children, it is rare in adult. *Streptococcus pneumoniae* is the most common causative microorganism resulting in round pneumonia. Although the exact pathogenesis is unknown, it is postulated that atypical centrifugal dissemination of the exudative fluid either by travelling through the pores of Kohn and Lambert

canals or by destroying the walls of surrounding is responsible for the nonsegmental pattern. The patients are usually symptomatic including fever, cough, dyspnea and chest pain. Radiologic features of round pneumonia can range from a small dense mass to a large ill-defined rounded opacity. It follows a benign course, and resolves with antibiotics. The radiological findings often mimic those of bronchogenic carcinoma in adults. This is particularly important when the lesion is detected in asymptomatic elderly patients. Clinicians and radiologists must be aware of this pattern of pneumonia to avoid mislabelling it as tumor which may lead to unnecessary interventions.

Bibliography

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