

# Hydatid Ruptured into the Bronchus

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## CLINICAL SUMMARY

A 15-year-old girl presented with complaints of cough, fever and breathlessness since the past one month. She was treated at various places for typhoid, malaria and pneumonitis with no relief. She gave no history of any travel in the past and any history of contact with dogs, sheep or any other domestic or wild animals. On clinical examination, crepitations were auscultated in the left lower lobe.

## INVESTIGATIONS

The chest radiograph showed a left paracardiac haze merging with the left cardiac border (Figure 1). Mantoux test was negative and the blood film showed total leukocyte count of 12,400 and an absolute eosinophil count of 1430. Kidney and liver function tests were normal. An ultrasound examination of the thorax and abdomen was unremarkable. Contrast enhanced computed tomography (CECT) of the chest revealed a consolidation in the left lower lobe with a central area of cavitation showing an air pocket and adjacent minimal pleural effusion (Figure 2).

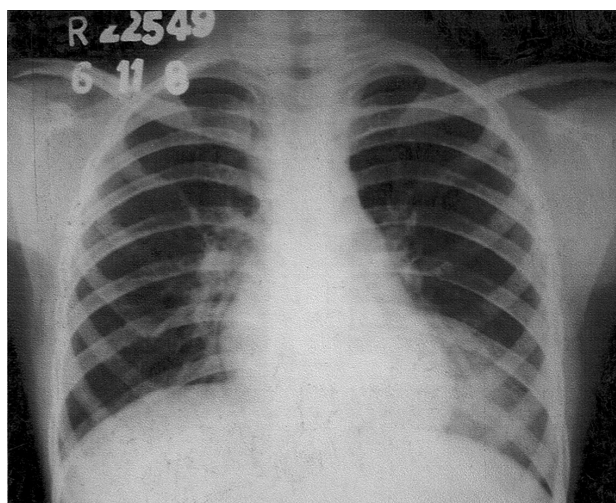


Figure 1. Chest radiograph (postero-anterior view) showing diffused haze in the lower zone in the left paracardiac region suggestive of left lower zone pneumonitis.

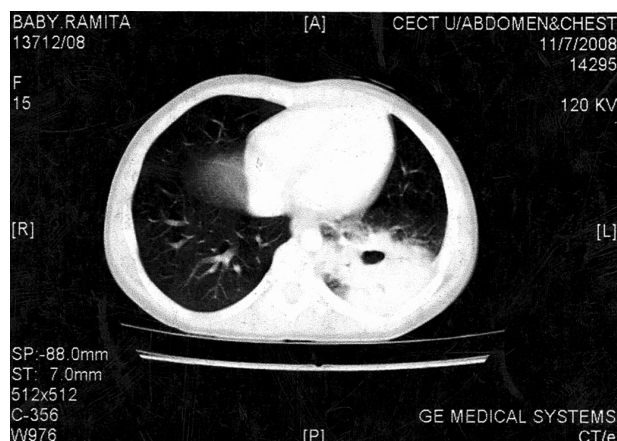


Figure 2. Contrast enhanced computed tomographic image of the chest showing consolidation in the left lower lobe with a central area of cavitation showing an air pocket with septations.

The CECT abdomen was not remarkable. Since the patient's cough was persistent despite antibiotic therapy and presence of the left paracardiac opacity, fibreoptic bronchoscopy (FOB) was done. The anterior segment of the left lower lobe showed whitish material, that was difficult to remove and got stuck to the suction channel. The bronchoscope was withdrawn and flushed to clear the channel. The whitish material revealed floating membranes (Figure 3). The bronchoalveolar lavage was negative for malignant cells, acid-fast bacilli and fungal elements. The whitish material revealed cysts of echinococcus (Figure 4).

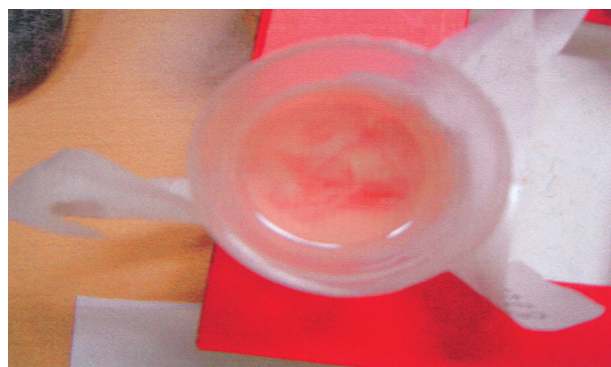


Figure 3. The floating membranes revealed after flushing open the channel to remove the white fleshy material seen on video-bronchoscope.

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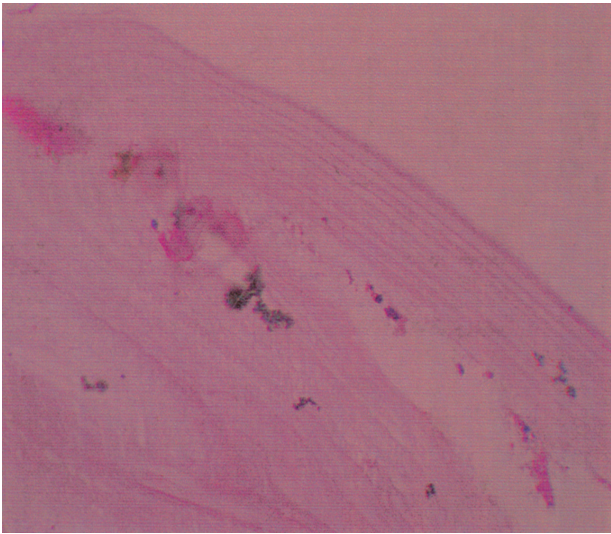


Figure 4. High power field revealing the pericyst, endocyst and ectocyst of echinococcus.

The patient was started on 200 mg albendazole taking into consideration the weight of the patient and the patient improved dramatically. The chest radiograph revealed resolution of the consolidated area.

### DIAGNOSIS

*Pulmonary hydatid disease with rupture into the bronchus.*

### DISCUSSION

Hydatid cysts are seen frequently in the lungs after the liver.<sup>1,2</sup> The common symptoms are cough and haemoptysis.<sup>3</sup> In 2% to 9% of the cases membrane expectoration is a pathognomic finding and is due to the cyst rupturing into the bronchi. If the hydatid cyst is found ruptured, bronchoscopy can be used to remove cyst membrane fully.<sup>4</sup> Computed tomography has an accuracy of 98% and the sensitivity to demonstrate the daughter cysts.<sup>5</sup> Eosinophilia is present in 25% cases, as also in our case. Management is medical, surgical and bronchoscopic.

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It is proposed to extend the scope of the Radiology Forum of our Journal by inviting our readers as well as other workers in the field of Respiratory Medicine to submit brief report of patients with interesting clinical and radiological features for publication. These will be published, provided that:

1. The condition is of sufficient clinical and radiological interest;
2. Photographs (10cm×8cm) are of excellent quality for printing (Maximum: 4 photographs);
3. The diagnosis in each case has been confirmed; and
4. The chest radiograph is accompanied by brief clinical account, not exceeding two page typescript (with sub-head: Clinical Summary, Investigations, Diagnosis, Discussion and References)

All the material received for publication under the Radiology Forum section will be evaluated to judge the suitability for publication by our peer-review experts panel.

*Editor-in-Chief*