IMAGES IN THORAX

Giant pulmonary hydatid cyst

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A 34-year-old Tibetan man presented with a 4-month history of progressive chest pain and dyspnoea. On direct questioning, his diet consisted of eating raw beef. On examination, there were no breath sounds auscultated on the right. Chest X-ray and CT revealed a giant cystic lesion occupying the right hemithorax (figure 1). There were no other cysts shown on the brain and abdominal CT scans. The serological haemagglutination test for echinococcosis was positive.

When the patient was positioned in left lateral decubitus position it was observed that his heartbeat decreased to 40–50 bpm, which did not respond to atropine administration. Arterial blood gas analysis was performed with 4 L/min of supplemental oxygen via a facemask and showed $PaCO_2$

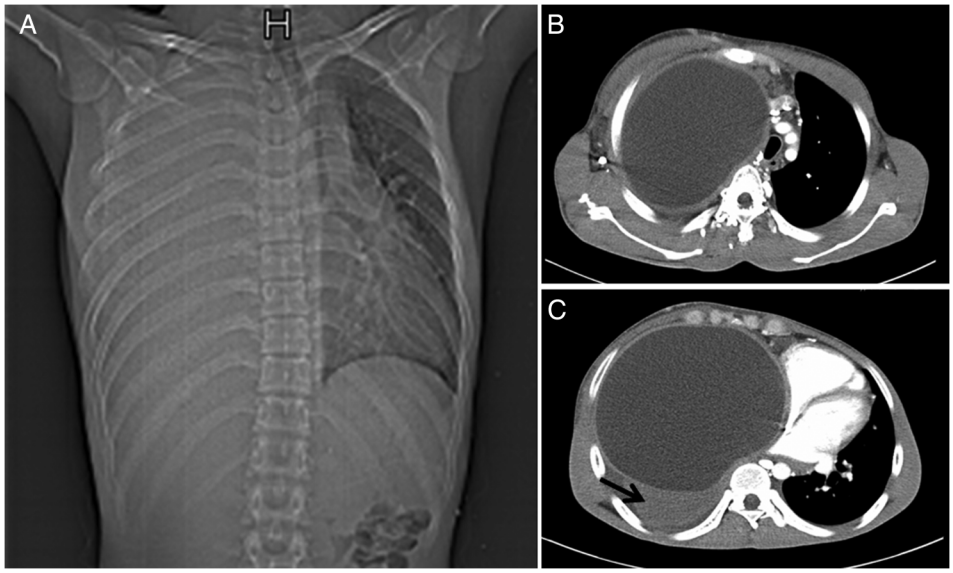

Figure 1 (A) Chest X-ray showed a high-density shadow. (B and C) Chest CT revealed that right hemithorax was occupied with a giant tension cystic lesion, which collapsed right lung (arrow) and shifted the mediastinum to the left side.

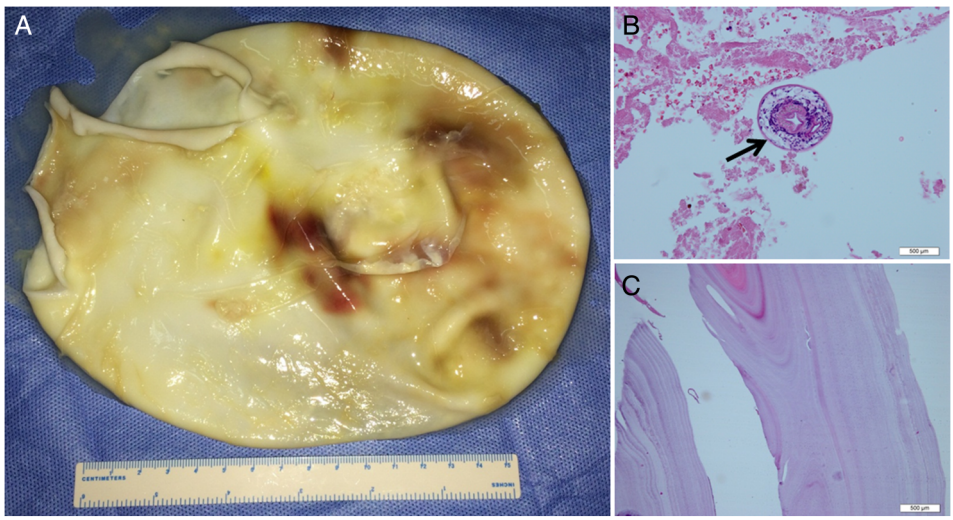

Figure 2 (A) Macroscopic view of laminated membranes of hydatid cysts, which was removed from the right upper lobe. It was opened and the cystic fluid was extracted. (B and C) Microscopic pathological examination showed scolices (arrow) and laminated membrane (H&E staining, ×40).

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of 45 mm Hg, a PaO_2 of 74 mm Hg and an SpO_2 of 91%. Following a multidisciplinary discussion between a cardiologist, anaesthetist and microbiologist, a temporary pacemaker was placed prior to surgery to remove the cyst. The giant cyst was completely removed (figure 2A) combined with wedge resection of the right upper lobe via thoracotomy. Microscopic pathological examination confirmed the diagnosis of giant echinococcosis cyst and showed the existence of scolices and laminated membrane (figure 2B, C). The patient made a full and uneventful recovery from the procedure and was discharged from the hospital 10 days after surgery. There has been no evidence of recurrence in the 2 years follow-up.

Hydatid disease is caused by *Echinococcus granulosus* or *E. multilocularis*. Pulmonary parenchyma is the second most commonly affected organ after liver infection.[1] Due to the delay in presentation and symptoms, pulmonary hydatid cyst can grow to very large sizes.[2] For resectable intrathoracic hydatid disease, complete excision with maximum preservation of lung tissue is the first line of management.

Contributors CG wrote the manuscript. QP and LL managed the patient. JM prepared the images.

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Patient consent Obtained.

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