Loculated post-operative pleural effusion

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A 21-MONTH-OLD MALE INFANT, BORN WITH tricuspid atresia, severe infundibular stenosis, a persistent left superior caval vein, and concordant ventriculoarterial connections, underwent an uneventful left-sided superior cavopulmonary shunt. During surgery, the right pleural space was not entered. After operation, the child did well, and was discharged home on the 7th postoperative day. Chest radiography at the time of discharge revealed no abnormalities. Four days after discharge, at a follow-up appointment, although the child was afebrile, decreased breath sounds were noted on clinical examination. A chest radiograph taken at this time demonstrated a large right pleural effusion. A chest tube was placed and, despite its



Figure 1.

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good position as confirmed radiographically, there was no drainage at any time. On the following day, computerised tomography of the chest demonstrated a large right loculated hydropneumothorax and pleural thickening (Fig. 1). Exploration of the right chest using video-assisted thoracic surgery revealed numerous loculations created by strands of fibrin extending between the pleura and chest wall. In addition, there was a thick fibrin exudates on the pleural surface of the lung (Fig. 2). Under thoracoscopic guidance, the loculations were lysed and the lung re-expanded. This case is illustrative, first, of why chest drains are inadequate in the treatment of loculated pleural effusions and, second, the utility of video-assisted drainage.



Figure 2.