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Video-assisted thoracoscopic surgery in continuous ambulatory peritoneal dialysis-related hydrothorax

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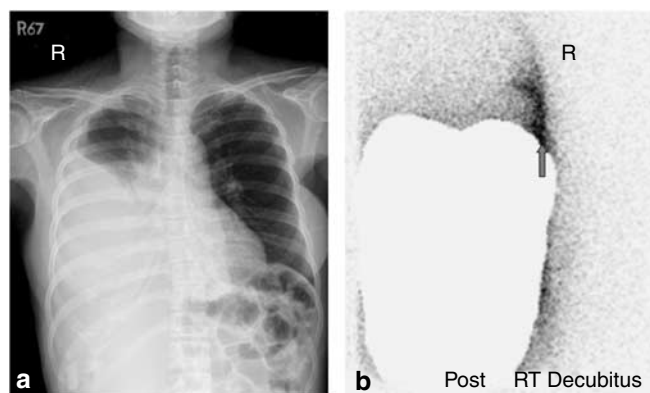


Figure 1 | CAPD-related hydrothorax. (a) Chest X-ray showing massive right side pleural effusion and (b) Tc-99m peritoneal scintigraphy showing tracer uptake over the right side of the diaphragm (arrow) after Tc-99m IP injection.

A 50-year-old lady with end-stage renal disease developed dyspnea, nausea, and vomiting soon after commencing continuous ambulatory peritoneal dialysis (CAPD) for 1 week. The chest X-ray showed massive right-sided pleural effusion (Figure 1a), which was transudative in character with high sugar levels. To establish the diagnosis of CAPD-related hydrothorax, a peritoneal-pleural communication was confirmed by Tc-99m peritoneal scintigraphy, where an uptake signal appeared in the right side of thorax within 30 min of tracer injection into the peritoneal cavity (Figure 1b). During the video-assisted thoracoscopic surgery, a defect about 0.3 cm in diameter on the right diaphragm was

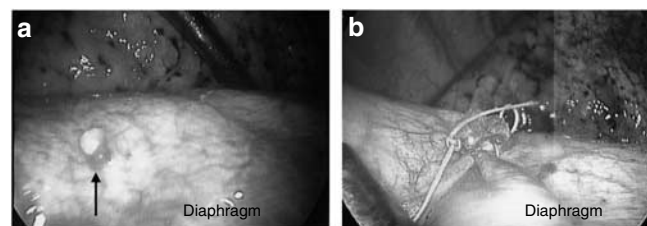


Figure 2 | Images under thoracoscopy. During the video-assisted thoracoscopic surgery (VATS), a 0.3 cm defect (arrow) found on the right diaphragm (a) and was repaired by direct suture with a mesh (b).

repaired by direct suture with a mesh (Figure 2). The postoperative course was smooth and CAPD was resumed 2 weeks later without event. The chest X-ray did not show any recurrence of the pleural effusion up to 5 months later. Both Tc-99m peritoneal scintigraphy and video-assisted thoracoscopic surgery with mesh repair provide a safe, simple, and quick way to diagnose and treat CAPD-related hydrothorax.

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