Hydrothorax in a pediatric patient on peritoneal dialysis: Questions

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Case presentation

An 11-year-old male patient, who had ambiguous genitalia and end-stage chronic kidney failure due to obstructive uropathy, was on continuous ambulatory peritoneal dialysis (CAPD) for more than a year. The patient and his parents were complaining from insufficient ultrafiltration volumes. Ultimately, the patient developed generalized edema with shortness of breath and was hospitalized. He had tachypnea and orthopnea on physical examination. His blood pressure was high (160/100 mmHg). Auscultation revealed diminished lung sounds bilaterally. He did not have abdominal tenderness and his temperature was normal. Serum urea and creatinine levels were 118 mg/dL and 8.62 mg/dL, respectively. Blood count was normal except anemia. Serum sodium (137 mmol/L), potassium (3.96 mmol/L), albumin (3.5 g/dL), and C-reactive protein (0.35 mg/dL) levels were in normal ranges. Chest X-ray showed bilateral pleural effusions. Thoracic ultrasonography revealed 7 and 8 cm of effusions in the right and the left hemithoraces, respectively. Transudative effusion with high

glucose (134 mg/dL) and low albumin (0.8 g/dL) levels were found on diagnostic thoracentesis.

Questions

1. What is the most likely diagnosis of this patient?
2. What are the other diagnostic approaches?
3. What are the causes and the treatment options of this condition?

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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