

## Clinical Quiz

### What is the diagnosis?

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A baby boy was born at a gestation of 29 weeks 5 days with birth weight 1350 gram to a healthy Chinese couple via normal spontaneous vaginal delivery. He was admitted to our NICU for prematurity. He had normal heart rates and oxygen saturation in room air. For delivering parenteral nutrition, percutaneously inserted central catheter (PICC) was inserted through the right basilic vein. An anteroposterior chest X-ray was performed to confirm the correct location of the PICC tip after insertion (Figure 1).

Five days later, the baby developed frequent apnoea and desaturation. The arterial blood gas analysis showed metabolic acidosis (pH: 7.174, PCO<sub>2</sub>: 30.9 mmHg, PO<sub>2</sub>: 82.3 mmHg, Glucose: 17.5 mmol/L, Lac: 5.3 mmol/L, ABE: -16.5 mmol/L). He was given nasal oxygen to improve oxygenation immediately. Glucose and a dose of 1.4% sodium bicarbonate were given. However, his conditions did not improve, and he further deteriorated with shortness of breath, skin mottling and poor response to stimuli. Arterial blood gas analysis showed worsening of acidosis (pH: 7.151, ABE:-11.3 mmol/L). Oxygen saturation was down to 70% and the heart rate was only 90 to 100 beats per minute. There was a distant heart sound detected by cardiac auscultation after 7 hours since his condition became unstable. Thus, the baby was intubated and ventilated (SIMV) (PIP 20, PEEP 6, FiO<sub>2</sub> 40%, Rate 40, Ti 0.35). Then X-ray was rechecked and a bedside echocardiography was performed (Figures 2 and 3).



**Figure 1** Chest X-ray showing position of PICC tip after insertion.



**Figure 2** Chest X-ray was rechecked when baby was intubated.

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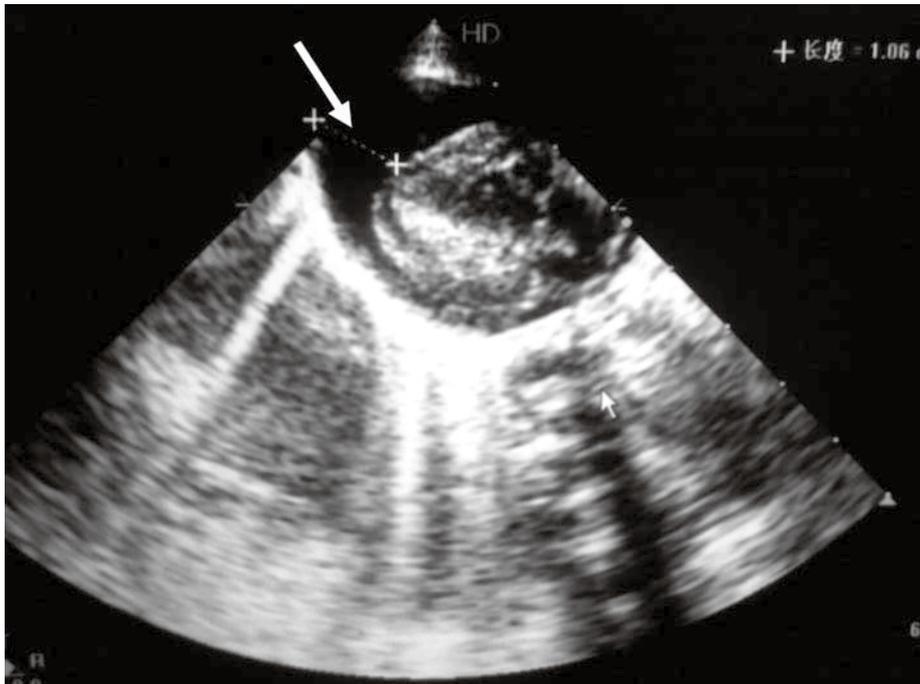
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**Figure 3** Echocardiogram performed after clinical deterioration of the baby's condition.

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N.B. The Editors invite contributions of illustrative clinical cases or materials to this section of the journal.