Patient Disconnect

To the Editor,

We would like to bring to your attention an event which occurred recently in the operating room. A 35-year-old ASA I man was scheduled for septorhinoplasty. After induction of anaesthesia with fentanyl and propofol, tracheal intubation was facilitated with succinylcholine. Anaesthesia was maintained with O₂ 33% in N₂O and isoflurane 0.8–1.5%. Ventilation was manually supported until resumption of spontaneous respiration.

The P_{ET}CO₂ (40–50mmHg), SpO₂ (97–100%) and respiratory rate (14–18 bpm) remained stable throughout the operation. Forty minutes after the start of surgery, it was noted that the reservoir bag, which remained inflated, ceased to move with respiration. At that stage the P_{ET}CO₂ was 45mmHg, F_IO₂ was 0.33, SpO₂ was 99%, respiratory rate was 18 bpm and ET isoflurane was 1.0%. However, the inspired PCO₂ increased from a baseline of 3 mmHg to 12 mmHg.

It was noted that the patient was disconnected from the breathing circuit at a site distal to the gas sampling line. In effect, the surgical drapes had formed a tent allowing accumulation of fresh gas. This provided an adequate inspired O₂, N₂O and isoflurane. However the resultant rebreathing of CO₂ and diminished movement of the reservoir bag alerted us to the problem. In this situation, the P_{ET}CO₂ may not be a reliable indicator of a circuit disconnection in a spontaneously breathing patient.

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