

Postintubation airway obstruction caused by a retrotracheal haematoma

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DESCRIPTION

A 70-year-old man was admitted for traffic accident-related blunt chest trauma. He was taking aspirin and clopidogrel for a previous myocardial infarction. On admission, his initial vital signs were stable, but he had stridor and paradoxical respirations during examination. Contrast-enhanced CT (CECT) showed a retrotracheal haematoma without extravasation (figure 1). Postintubation bronchial fibroscope, oesophageal fibroscope and oesophagography showed neither tracheal nor oesophageal injuries. On day 4, after the patient moved while being intubated, the paradoxical respirations suddenly recurred. CECT revealed stenosis in the main bronchi below the site of intubation tube placement, likely due to an enlarged retrotracheal haematoma without extravasation (figure 2). Deeper reintubation improved the respiration. However, negative pressure pulmonary oedema occurred. After the haematoma and oedema resolved (day 10), the patient was extubated. Antiplatelet therapy was restarted, and he was discharged without complications.

Retrotracheal haematoma is caused by aortic injuries, bleeding of the mediastinal vein, ruptured aneurysm of the inferior thyroid artery or vertebral fractures.¹ It is identified through extravasation on CECT.² Most retrotracheal haematomas without extravasation resolve with only airway intubation.³ However, retrotracheal haematomas can cause airway obstruction, especially in patients receiving antiplatelet and anticoagulation therapy. Such



Figure 1 Stenosis in the main bronchi due to a retrotracheal haematoma (arrow).



Figure 2 On day 4, stenosis in the main bronchi, below the intubation tube, due to a retrotracheal haematoma (arrow).

patients should therefore be closely monitored, even when they are intubated.

Learning points

- ▶ Retrotracheal haematoma should be considered after blunt chest trauma.
- ▶ Retrotracheal haematomas can cause airway obstruction, even with intubation.

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