

Images in Anesthesia

Pneumomediastinum due to hypopharyngeal injury during orotracheal intubation



FIGURE Chest radiography showing extensive pneumomediastinum.

HYPOPHARYNGEAL injury is a complication of endotracheal intubation which can cause rare but serious complications including tension pneumomediastinum, tension pneumothorax and mediastinitis. A 14-yr-old boy with atlantoaxial subluxation was anesthetized for spine stabilization surgery. Immobilization of his cervical spine by weighted traction and restricted neck movements to maintain neutral positioning, necessitated two attempts at intubation following induction of anesthesia. The patient was mechanically ventilated. During positioning, slight swelling and palpable crepitus were observed on the right side of the neck. Chest auscultation was unremarkable; hemodynamic variables and arterial blood gases were within normal limits. A repeat laryngoscopy to exclude a possible intubation injury showed a small area of mucosal bleeding in the right posterior hypopharynx. Urgent chest radiography revealed extensive pneumomediastinum and right-sided cervical subcutaneous emphysema (Figure). Surgery was deferred and the patient was managed conservatively with mechanical ventilation using low airway pressures, prophylactic antibiotics and sedation. Repeat chest radiography 24 hr later showed complete resolution of the pneumomediastinum. Subsequently, the patient underwent surgery and had an uneventful recovery.

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