

FIGURE 1 Changes in the plasma levels of brain natriuretic peptide (BNP; normal range $<18.4 \text{ pg}\cdot\text{mL}^{-1}$) and systolic pulmonary arterial pressure (sPAP) during the perioperative period in a patient with massive pulmonary tumour emboli. ECC=extracorporeal circulation; OP=operation.

atrial dilation with severe right ventricular hypokinesis. The estimated systemic pulmonary artery pressure (sPAP) by echocardiogram was approximately 70 mmHg. Pulmonary arterial angiography confirmed complete occlusion of the left main and the right upper lobe pulmonary arteries. Embolectomy was performed using total extracorporeal circulation. Massive pulmonary tumour emboli, diagnosed as sarcoma, were noted in the pulmonary artery. After removal of the tumour emboli in the main pulmonary artery, sPAP was restored to 40 mmHg. The plasma concentrations of BNP were within the normal range, before as well as during the operation, whereas they were slightly increased in the postoperative period (Figure). Our results suggest that plasma BNP levels are not always increased, even when the patient is subject to severe right ventricular pressure overload, as described in this case.

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Life threatening external iliac artery injury following total hip replacement

To the Editor:

Consequences of serious vascular injuries during total hip replacement (THR) have received little attention in the anesthesia literature as these rarely present in the immediate postoperative period.¹ We report the anesthetic and intensive care management implications of an undiagnosed external iliac artery injury following THR. A 36-yr-old male weighing 56 kg underwent THR under general anesthesia for osteonecrosis of the right femoral head. After an uneventful induction and maintenance of anesthesia, he developed manifestations of hypotension towards the end of surgery which persisted in the immediate postoperative period. The hemoglobin concentration fell from $11 \text{ g}\cdot\text{dL}^{-1}$ to $7 \text{ g}\cdot\text{dL}^{-1}$ along with a fall in central venous pressure and urine output in the immediate postoperative period. Colloids and blood products were administered to improve volume status but hypotension persisted and vasopressor infusions were started. The patient remained hemodynamically unstable, developed metabolic acidosis and required intubation and ventilation six hours after surgery. Increasing distension in the right lower quadrant of the abdomen was noticed. A diagnosis of retroperitoneal bleeding was made and an emergency laparotomy performed. Operative findings included a large retroperitoneal hematoma extending up to the diaphragm. The screw used for THR had perforated the right external iliac artery. Evacuation of the hematoma and end-to-end anastomosis of the artery were performed under general anesthesia. The patient was extubated 24 hr after the laparotomy and had an uneventful postoperative course.

External iliac and femoral vessels lie in close proximity to the hip joint and hence are prone to injury during the operation.² A high index of suspicion and aggressive hemodynamic management involving fluid therapy, inotropes, invasive perioperative monitoring,

vasopressors and early surgery will help prevent morbidity and mortality.

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On smooth extubation without coughing and bucking

To the Editor:

Having just received the Journal and read Dr. Orlando Hung's editorial¹ and Dr. Michael Stix *et al.*'s article² about trying to achieve smooth emergence from anesthesia and extubation (by intra-tracheal lidocaine and exchanging an endotracheal tube (ETT) for a laryngeal mask prior to emergence), I would like to suggest another relatively simple way of achieving such goals.

Whenever I want to extubate a patient quite awake at the conclusion of anesthesia without all the coughing and bucking, I prepare an ETT that will allow me to instill 2% lidocaine into the trachea prior to extubation.

A 3.5 or 5 F.G. infant feeding tube is secured at its distal tip with about 6 cm length of 1 cm "Micropore" tape to the ETT one cm above the cuff, with the end hole of the feeding tube free from obstruction. The feeding tube is then wound around the ETT snugly and the upper part of the feeding tube is secured again with 1 cm "Micropore" tape to the upper part of the ETT, at the 22 or 24 cm mark of the ETT.

While the patient is still paralyzed or in a deep anesthetic state, I can instill 4 mL of 2% lidocaine through the infant feeding tube, wait a few seconds, then deflate the ETT cuff to let the lidocaine run down into the trachea below the ETT cuff, ventilate the patient once with the cuff still deflated, then re-inflate the cuff. This should provide adequate topical anesthesia to the trachea for about 15 to 20 min. If time to extubate has gone beyond 15 min, repetition of the above manoeuvre before the 20 min "deadline" is up will extend the "tracheal anesthesia" state.

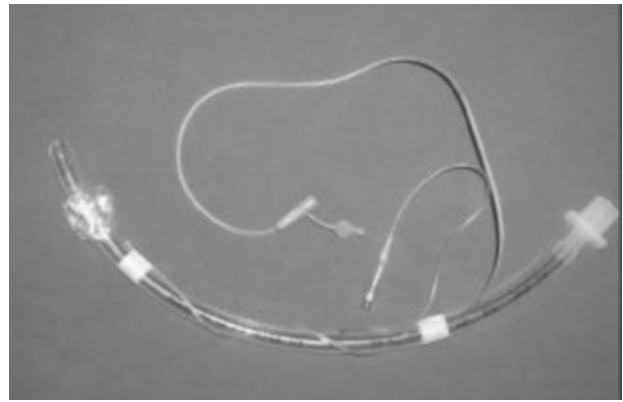


FIGURE Endotracheal tube with feeding tube.

This method has served me well over the last few years. I have learned to time the instillation of lidocaine, so that when the patient is awake enough to be safely extubated, the trachea is still anesthetized topically. A word of caution is warranted. All the suctioning of the oropharynx should be completed before reversing or lightening anesthesia as the oropharynx is not anesthetized topically. Also I have not used this method yet in patients intubated nasotracheally.

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- 2 *Stix MS, Borromio CJ, Sciortino GJ.* Learning to exchange an endotracheal tube for a laryngeal mask prior to emergence. *Can J Anesth* 2001; 48: 795–9.

Electroconvulsive therapy with thiamylal or propofol during pregnancy

To the Editor:

We describe our experience of administering anesthesia to a depressive patient during pregnancy for electroconvulsive therapy (ECT) with thiamylal or propofol. A 31-yr-old pregnant (21 weeks and four days) woman underwent ECT 14 times over a period of 65 days. While the patient laid in a supine position in the operation room, anesthesia was induced with either thiamylal (4 mg·kg⁻¹) or propofol (1.5 mg·kg⁻¹) followed