FIGURE Inferior vena cavography, showing the inferior vena cava almost obstructed around the liver (indicated by black arrows). Cavography was conducted via a 16G catheter inserted 20 cm cephalad from the femoral vein, (tip of the catheter is indicated by the white arrow).

Perioperative monitoring of the retrohepatic IVC pressure may be useful to anesthesiologists during hepatic surgery. In our case, monitoring of IVC pressure aided in the timely recognition of obstruction of the IVC. Similar findings may be encountered during surgery. Surgical retraction of the IVC results in hypovolemia due to decreased venous return. Monitoring of the retrohepatic IVC pressure can help us assess whether hypovolemia is due to transient surgical retraction or blood loss. Further, pressure within the retrohepatic part of the IVC is strongly correlated with blood loss during liver resection,¹ suggesting that anesthesiologists should consider avoiding high retrohepatic IVC pressures during surgery to reduce hepatic venous hemorrhage.

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Repeat anesthetic management of a patient with Huntington's chorea

To the Editor:

We present different approaches to the anesthetic management of a patient with Huntington's chorea, for which experience is limited.^{1–6}

A 57-yr-old female with Huntington's chorea had elective surgery on three successive occasions. She had gross choreiform movements, ataxia and received haloperidol and lorazepam *po*. Preoperative laboratory investigations were unremarkable. She was premedicated with ranitidine, lorazepam and haloperidol. On the first occasion, anesthesia was induced with morphine and midazolam *iv*. On the second occasion, anesthesia was induced with morphine, propofol *iv* and atracurium was used to facilitate intubation. On the third occasion, anesthesia was induced with fentanyl, propofol *iv* and atracurium was used to facilitate intubation. Anesthesia was maintained with 66% N₂O in O₂ with 1.5% isoflurane on the first and second occasions and 1.5% sevoflurane on the third. The patient was allowed to breathe spontaneously by face mask. Cognitive functions returned five minutes, two minutes, and immediately after reversal respectively.

The best anesthetic technique is yet to be established for these patients. The unpredictability of thiopentone¹ can be circumvented by using induction agents like midazolam² and propofol.³ Prolonged apnea following suxamethonium⁴ can be averted by using rocuronium when rapid sequence induction becomes necessary. Further, the incidence of postoperative shivering can be minimized by use of isoflurane and sevoflurane⁵ in place of halothane. The low solubility coefficients of these agents allow early emergence, intact cognitive function and early return of protective airway reflexes; thus the risk of pulmonary aspiration is minimized. For lower abdominal and perineal surgery spinal anesthesia⁶ is a tangible alternative although achieving proper position and avoidance of trauma remains difficult in these patients.

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Exposure to sevoflurane in otorhino-laryngologic operations

To the Editor:

Exposure to trace anesthetic gases is not associated with considerable risks of adverse health effects. Nevertheless, efforts must be undertaken to maintain the high level of safety currently fostered by occupational exposure guidelines.¹ Further, online control of ambient air exchange at the operating room (OR) may help in supervising air quality and lead to cost reduction.² Ear-nose-throat (ENT) OR are especially prone to higher levels of contamination. However, to this date, only nitrous oxide, desflurane and isoflurane exposure in ENT OR have been measured³ even though the new inhalation anesthetic sevoflurane enjoys growing use in these OR.

A Proton-Transfer-Reaction Mass-Spectrometer system⁴ was used for online monitoring of volatile organic compounds, especially anesthetic gases in our ENT OR. The mean exposure to sevoflurane was 103.6 parts per billion (time-weighted average) over the working period. Sevoflurane concentrations were patient turnover-dependent during the 48-hr investigational period and shortlasting peaks were registered when sevoflurane was used during mask ventilation before intubation of the trachea (Figure).

Since modern OR have a high ventilation capacity, the 24-hr occupational burden by anesthetic gases in

FIGURE

the OR is, altogether, relatively low. Monitoring and control of ambient air quality by automatic systems would be useful to optimize ventilation in the work place environment. Moreover, energy costs of ventilation systems could be reduced by coupling ventilation capacity to the effective exposure.

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