Correspondence

Herbals - beware bleeding

To the Editor:

We wish to report unusual bleeding after use of Echinacea.

A healthy 60-yr-old woman with controlled hypothyroidism had lumpectomy of the breast under anesthesia with propofol, fentanyl, O₂, N₂O, isoflurane with LMA. During surgery, vital signs were normal but the surgeon remarked that the patient was bleeding more than usual. The common intraoperative causes of bleeding were ruled out. Surgery was completed in an hour with an estimated blood loss of 500 ml. Coagulation studies in PACU, were normal except for slightly elevated thrombin time. The patient was observed overnight and discharged the following day.

Preoperative questioning revealed that she was taking Echinacea for a recent cold for three weeks but no anti-platelet drugs. Echinacea is used for treating colds and boosting immunity. Chronic use causes hepatic dysfunction and it is used with caution with hepatotoxic and anti-platelet agents. There is no standardization of the quality or quantity of active ingredients and it is often adulterated with other herbals namely feverfew, a drug known to inhibit platelet function.¹

We suspect that our patient's bleeding was due to chronic Echinacea use. There are no guidelines of discontinuation of herbals prior to surgery. The ASA has issued a warning and advised that patients should disclose this information. We would like to hear from the Anesthesia community about their experience. We advise that anesthesiologists ask about herbal use in preoperative questioning.

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References

- 1 O'Hara MA, Kiefer D, Farrell K, Kemper K. A review of 12 commonly used medicinal herbs. *Arch Fam Med* 1998; 7: 523-36.
- 2 Leak JA. Herbal medicines: what do we need to know? *ASA Newsletter* 2000; 64: 6-11.
- 3 Leak JA. Herbal medicine: is it an alternative or an unknown? A brief review of popular herbals used by patients in a pain and symptom management practice setting. *Curr Rev Pain* 1999; 3: 236.

Unusual cause of volotrauma

To the Editor:

Datex-Engstrom ADU anesthesia machines (Datex-Engstrom, Bromma, Sweden) offer three automated ventilation options: Volume Control, Synchronized Intermittent Mandatory Ventilation and Pressure Control (PCV). With PCV mode, the operator sets the amount of PC and rate. The delivered tidal volume (V_T) depends on the compliance of the patient's lungs and thorax.

Several months ago, the first case was a laparotomy in an ICU patient with ARDS. His lungs were ventilated in the operating room using PCV 25cmH₂O, PEEP 5, I:E ratio 1:2, rate 12, FiO₂ 0.50. The V_T was 400-500 ml. The second case was a laparoscopic cholecystectomy in a 60 kg female. Induction and tracheal intubation were uneventful and her lungs were ventilated. Two minutes later, the anesthesiologist noted large excursions of the ventilator bellows. Spirometer was registering V_T of 1400 ml. The PCV setting of the previous case (25cmH₂O) was inadvertently applied to the present patient resulting in excessive V_T . The ventilator was appropriately reset and she did not suffer any sequelae. Significantly, neither the ADU nor the interfaced Datex AS/3 monitor alarmed. The ADU has high and low airway pressure alarms while the AS/3 has high peak pressure, PEEP and minute ventilation (default 30 L·min⁻¹) alarms.¹ Neither device has alarms for excessively high or low V_T .

This case illustrates the potential dangers of volotrauma using a ventilator mode unfamiliar to the anesthesiologist. It has been shown that excessive V_T can be more detrimental than high airway pressure in causing alveolar damage and leaky capillaries.² With newer, sophisticated anesthesia ventilators, anesthesiologists must be highly vigilant and be fully familiar with its features. When PCV is used, high and low V_T alarms may be useful safety features.

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References

- 1 Datex-Engstrom AS/3 Anaesthesia Delivery Unit User's reference manual, March 1998. 6-2.