

### Transient phlebitis induced by a bolus injection of propofol

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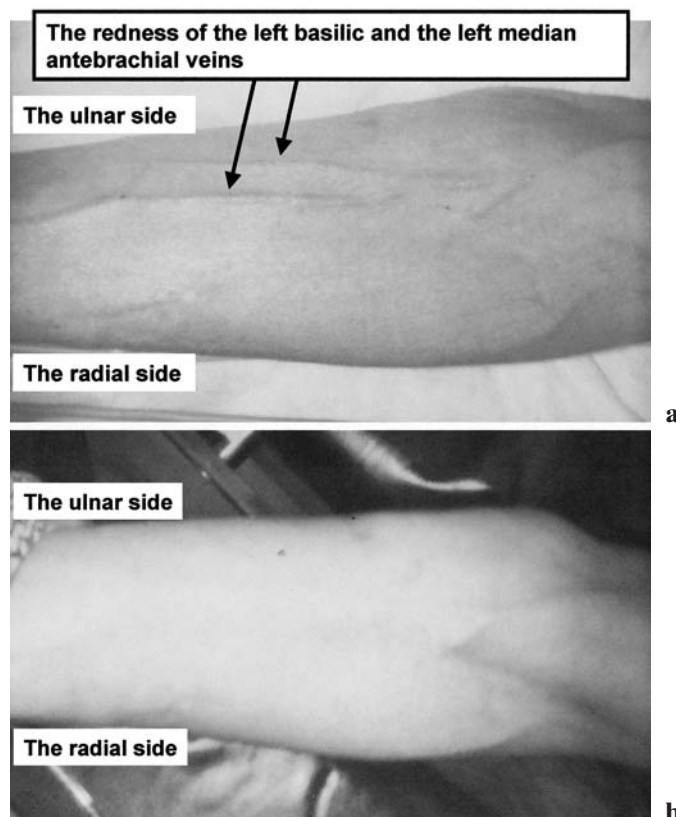
#### To the editor:

The incidence of thrombophlebitis induced by propofol (Diprivan) as a 1% solution in an aqueous solution of 10% soybean oil, 2.25% glycerol, and 1.2% purified egg phosphatide is reportedly less than 6.6% [1,2]. However, the incidence of propofol-induced transient phlebitis is still unclear, although a previous study documented that the incidence of phlebitis without thrombosis at the end of the surgery is 0.4% [3]. Careful detection of transient as well as delayed phlebitis may be crucial to allow us to estimate the incidence of perioperative phlebitis induced by propofol injection. Here, we report transient phlebitis in an elderly surgical patient produced by an intravenous bolus of propofol without any painful episodes during the injection.

A 75-year-old man (163 cm, 46 kg) was scheduled for resection of lung cancer with general anesthesia in combination with epidural anesthesia. No premedication was administered. On arrival at the operating room, a 20-gauge intravenous catheter was inserted into his left cephalic vein under local anesthesia and acetate Ringer's solution was administered at a rate of 5 ml/kg/h. Noninvasive measurement of blood pressure was performed at his right arm. After the completion of epidural catheter insertion at T5/6, general anesthesia was induced with propofol (1% Diprivan; AstraZeneca, Osaka, Japan) 80 mg i.v. in 40 s. Vecuronium 5 mg i.v. in 5 s was subsequently administered to facilitate tracheal intubation. We dissolved vecuronium with distilled water so the final concentration was 2 mg/ml (0.2%). Although this patient did not complain of injection pain during the above injection, we noted redness along the left basilic and the left median antebrachial veins immediately before the intubation (Fig. 1a). After tracheal intubation, sevoflurane 1% in combination with 50% nitrous oxide was administered to maintain the anesthesia. Thirty minutes after commencement of the general anesthesia, the

redness of his veins disappeared (Fig. 1b). After that, the course of the patient during and after anesthesia was uneventful, even though we repeatedly administered the same concentration of vecuronium in a bolus manner (1–2 mg i.v.) during the surgery. The delayed redness at these veins did not recur.

The incidence of such transient phlebitis after injection of propofol has not been well known. To understand the



**Fig. 1.** **a** Left forearm of the patient immediately after the propofol injection (80 mg i.v. in 40 s). Note the redness along the left basilic and left median antebrachial veins. **b** Left forearm of the patient, without the redness, 30 min after the commencement of general anesthesia

side effects of propofol, we should carefully evaluate each injection site after propofol administration even if the patient does not complain of pain during the injection.

## References

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