

Images in Allergy

Transient Phlebitis After Propofol Infusion: A Mimic of Hypersensitivity

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CASE REPORT

A 49-year-old patient underwent general anesthesia for the first time, for surgery of a displaced fracture of the left clavicle. During induction, propofol 200 mg (2.5 mg/kg) was administered intravenously in the right arm, together with rocuronium 42 mg and sufentanil 50 µg. Immediately after induction, the patient developed a diffuse redness along the superficial veins of the right arm, starting at the injection site on the forearm and extending to the upper arm just underneath the shoulder (Figure 1). There were no objective findings of hypersensitivity, such as skin rash or respiratory problems. There were no signs of extravasation. The operation was continued and the pronounced venous pattern disappeared spontaneously after 45 minutes. Recovery was uncomplicated. Clinical examination in the recovery room was normal. Serial serum tryptase levels remained stable (2.9 µg/L at 1.5 hours and 2.7 µg/L at 24 hours post-event). Allergy workup was requested, yet no further testing was performed because an IgE-mediated reaction was deemed unlikely based on clinical (localized and transient appearance) and biochemical findings. Propofol-induced transient phlebitis was diagnosed.

To date, only a few cases of propofol-induced transient phlebitis (without thrombosis) have been described,^{1,2} although

it is reported to occur in up to 0.4% of administrations.¹ It is associated with a transient, local venodilation and additional inflammation or irritation, attributed to infusion by propofol. The exact pathophysiology is unknown, although activation of the plasma kallikrein-kinin system via the lipid solvent of propofol, thereby generating bradykinin, has been suggested and could possibly contribute to propofol-induced hypotension or propofol-induced injection-site pain.³

This mild adverse event should be taken into consideration by both anesthesiologists and allergists. We did not recommend strict avoidance of propofol because of the harmless features of this clinical picture, which were localized and transient. Although reoccurrence of symptoms has been reported on readministration, propofol may still be considered after assessing the risks and benefits.

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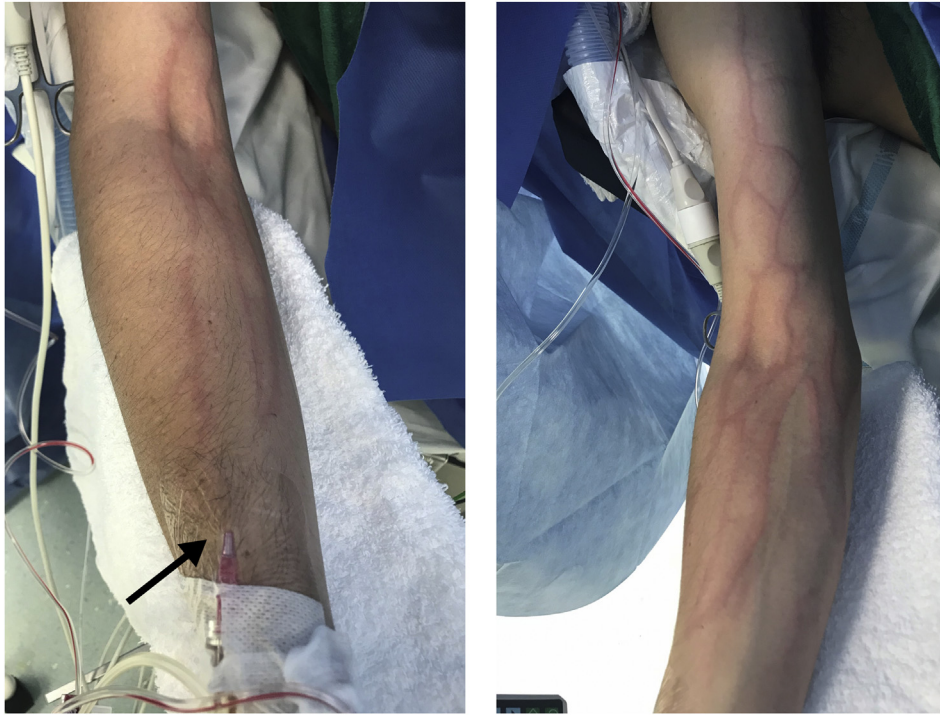


FIGURE 1. Transient phlebitis after propofol infusion. Diffuse transient redness early after propofol infusion along the superficial veins of the right arm, starting at the injection site (*arrow*) on the forearm and extending just underneath the shoulder.