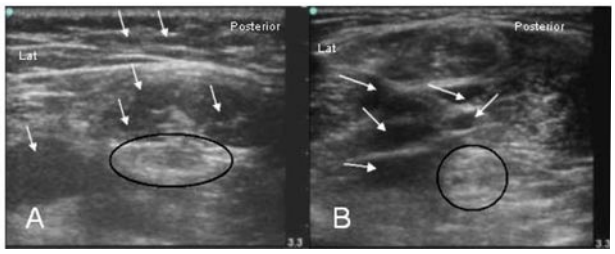

FIGURE Subgluteal sciatic nerve (encircled by black line, panel A) and distal sciatic nerve in the popliteal fossa (panel B) both surrounded by multiple vascular malformations (white arrows). Lat = lateral.

postoperative analgesia. The same block procedure was followed as described in the first case. On ultrasonographic visualization the vascular malformations were readily identified. The needle insertion and catheter advancement proceeded uneventfully without puncturing the vascular structures. A total dose of 8 mL ropivacaine 0.375% was injected around the nerve. Surgery was uneventful and no other analgesics were given. Postoperatively, a perineural infusion of ropivacaine 0.2% at a rate of 2-mL·hr^{-1} was started for five days. Again, no hematomas were observed at the catheter insertion point. Additional pain relief consisted of paracetamol orally. The verbal pain rating scores never exceeded 3, and the child, parents and nurses rated the pain relief as excellent. Unfortunately the patient subsequently developed a traumatic arteriovenous fistula in the amputation stump, which needed re-operation. The same procedure was followed as described earlier, and postoperative analgesia was again excellent.

These cases demonstrate how continuous peripheral nerve blocks may provide effective and prolonged postoperative analgesia postoperative pain relief in children.[1,2] The distinguishing element of these two cases is that visible bluish venous malformations prevented the insertion of a needle at the classical insertion places for sciatic nerve block.[3] Ultrasonographic guidance made it possible to visualize the sciatic nerve and avoid accidental puncturing of surrounding vascular structures. Direct observation of the spread of local anesthetic during injection through needle and catheter confirmed the correct position of both, prevented vascular injections and resulted in successful blocks. The direct visualization of the nerve and surrounding structures by ultrasonography has broadened the applications of peripheral nerve blocks for pediatric patients in whom traditional techniques would have been difficult or impossible.

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Dexamethasone and ondansetron incompatibility in polypropylene syringes

To the Editor:
The combination of dexamethasone and ondansetron has become increasingly common for the prevention of postoperative nausea and vomiting. At our facility, it has been the practice of some clinicians to combine the two medications in the same syringe prior to their administration during short cases with a high turnover rate.

Recently, our dexamethasone has come from a new supplier. The new supplier (Omega, Montreal, QC, Canada) offered a 4 mg·mL^{-1} dexamethasone sodium phosphate *iv* solution that contained benzyl alcohol as a preservative. Our previous supplier provided a 4 mg·mL^{-1} dexamethasone sodium phosphate *iv* solution that contained methylparaben/propylparaben as a preservative. The difference in preservatives is the only discernable difference between the two formulations.

Our staff quickly became aware that when the new stock 4 mg·mL^{-1} dexamethasone with benzyl alcohol was combined with ondansetron 4 mg in the same syringe, a precipitate formed on the wall of the syringe (Figure). Evidence of this reaction was visible within three minutes of combining the two drugs. We conducted a simple head-to-head test of the two 4 mg·mL^{-1} dexamethasone vials (one with benzyl

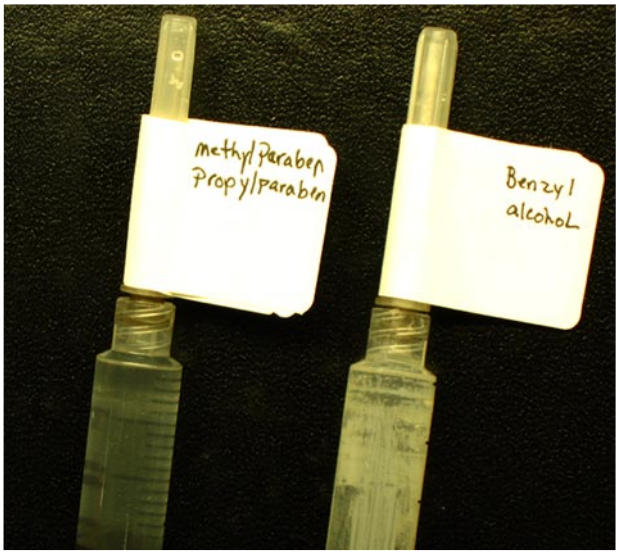

FIGURE Cloudy white precipitate resulting from the combination of dexamethasone with benzyl alcohol preservative and ondansetron.

alcohol and the other with methylparaben/propylparaben as a preservative) each with a 4 mg dose of ondansetron. The two syringes are displayed in the figure. At no time was there evidence of precipitate in the syringe containing the dexamethasone with the preservative methylparaben/propylparaben.

This type of reaction has been reported previously.[1] Hagan *et al.* reported precipitate formation on the syringe plunger, however at concentrations far less (less than half) than currently used by many practitioners at our institution (ondansetron 4 mg and dexamethasone 4 mg) The brand of dexamethasone in this study used benzyl alcohol as a preservative. We have recommended that the two drugs not be combined in the same syringe, and have notified the dexamethasone suppliers of our findings.

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Anesthetic management for a nail gun injury involving a cerebral venous sinus

To the Editor:

Pneumatic nail guns are used commonly in the construction industry and can cause traumatic injuries. We describe the anesthetic management of a patient undergoing craniotomy for nail removal complicated by an intraoperative venous air embolism (VAE).

A 30-yr-old male presented to the emergency department with a headache and bleeding from the scalp. While operating a nail gun overhead, a nail inadvertently deployed into the midline mid-frontal region of his head. On assessment he was alert and oriented, with stable vital signs and a Glasgow coma scale of 15. A skull radiograph (Figure) displayed the nail crossing the midline coronally. Cerebral angiography failed to show vascular disruption.

A decision was made by neurosurgery to remove the impacted nail emergently, with the patient requesting general anesthesia. Upon arrival in the operating room standard monitors were placed, and an indwelling radial artery cannula was placed pre-induction. After pre-oxygenation, a modified rapid sequence induction with cricoid pressure was performed with remifentanil 1 $\mu g \cdot kg^{-1}$, propofol 2 $mg \cdot kg^{-1}$ and rocuronium 0.6 $mg \cdot kg^{-1}$ administered intravenously. Anesthesia maintenance was with a 50/50 mixture of air and oxygen, sevoflurane 1.5–1.8%, with remifentanil infused at 0.05–0.15 $\mu g \cdot kg^{-1} \cdot min^{-1}$.

Approximately 20 min into the operative procedure and coincident with removal of the nail, the patient became suddenly hypotensive (a drop in blood pressure from 92/59 to 65/40 mmHg). His heart rate remained unchanged at 80 $beats \cdot min^{-1}$. Even though the end-tidal carbon dioxide did not change, a VAE was suspected. The patient was administered 100% oxygen, the surgical field was flooded with saline, the patient was positioned head down in left lateral tilt and the arterial pressure was supported by phenylephrine (total dose 300 µg *iv*). Following this resuscitation there was no further hemodynamic compromise of the patient during the subsequent surgical intervention.

At the completion of the surgical procedure, the anesthetic was transitioned to a total intravenous approach to facilitate patient transport to the radiology department. The patient underwent a computed tomography scan to rule out intracranial hemorrhage. A smooth emergence from anesthesia ensued and the