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complication; catheter induced urethral injury, i.v line, drain disconnections and head trauma. Since children are obligate nasal breathers, maintaining a patent airway in a child with bilateral nasal obstruction in the immediate perioperative period is very difficult. Sedating the child with i.v medication to keep the child calm can lead to airway obstruction, especially in difficult airway cases. Smooth induction, administration of adequate analgesia and positioning the child in which the child used to sleep preoperatively will avoid administration of unwanted sedation and airway related complications especially in a difficult airway senario.

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Figure 1: Mother lying in the ICU bed with the baby sleeping on her chest in prone position

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the drains and i.v lines were secured on his body. As the child was getting awake, he was placed on the anaesthetist shoulder with oxygen mask and transferred to neonatal intensive‑care unit (NICU). In the NICU, the mother was asked to lie down on the ICU bed and the child was placed on the mother's chest on his usual sleeping position [Figure 1]. He was responding to his mother's voice and slept comfortably while maintaining 100% saturation on room air over night without any airway related issues. Postoperatively the child received i.v paracetamol (15 mg/kg) every 6th hourly for analgesia.

The child was shifted out to ward the next day and got discharged on the 5th day from the hospital.

Keeping the child awake and calm is very important in the immediate postoperative period to avoid airway‑related complications.

Physical incompatibility between Furosemide and Rocuronium Bromide

Barkha Bindu, Surya K. Dube, Girija P. Rath

Rocuronium bromide is a commonly used neuromuscular blocking agent in the present day neuroanaesthetic practice. Furosemide is a diuretic agent used in neurosurgical patients to reduce the intracellular and extracellular fluid compartments of the brain.[1] We report an observation of a physical incompatibility between these two commonly used agents.

A 59-year-old, 69-kg male was posted for elective craniotomy and resection of temporal meningioma. Preoperative treatment history of the patient revealed intake of phenytoin 100 mg orally twice daily since last 7 months. During the surgical procedure, a 14G intravenous (IV) cannula was secured in the left forearm and 0.9% saline was administered via a 50 cm long extension line. As the patients receiving chronic anticonvulsant medications are resistant to non‑depolarizing muscle relaxants,[2]

Address for correspondence:
Dr. Girija Prasad Rath, Department of Neuroanesthesiology, Neurosciences Center, All India Institute of Medical Sciences, New Delhi - 110 029, India. E-mail: girijarath@yahoo.co.in

Department of Neuroanesthesiology, All India Institute of Medical Sciences, New Delhi, India
it was decided to maintain intraoperative muscle relaxation through infusion of rocuronium bromide at the rate of 10 µg/kg/min through the extension line. Intraoperatively, furosemide 10 mg IV was administered through the extension line. Immediately after injection of furosemide, a white precipitate was observed inside the tubing of the extension line. The infusion was stopped and the extension line was replaced. A new IV access was established and furosemide was administered.

Rocuronium bromide is supplied as an isotonic solution (10 mg/ml) for IV use and each millilitre of the drug contains 2 mg sodium acetate and 3.3 mg sodium chloride. The aqueous solution is adjusted to a pH of 4 with acetic acid and/or sodium hydroxide. Furosemide injection (10 mg/ml) contains sodium chloride, sodium hydroxide and, if necessary, hydrochloric acid to adjust pH between 8.0 and 9.3. In this case, it seems the acidic nature of rocuronium bromide and the alkaline nature of furosemide was responsible for the formation of precipitates when the two agents were mixed.

Incompatibility of methyl prednisolone succinate and vecuronium bromide has been reported previously and the possibility of pulmonary embolism with particle size more than 6 µm has been cautioned. However, it is not known whether the particle size of the precipitate formed by furosemide and rocuronium admixture results in a similar size to cause pulmonary embolism. Both rocuronium and furosemide are commonly used during in neurosurgical procedures; and we would like to re-emphasise the incompatibility of the two agents which despite a known fact, is often forgotten in the operation room. Hence, we suggest routine use of these two agents through different IV access whenever a co-administration is planned.

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