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In Reply:—We thank Dr. Yemen for his interest in our publication. Our adult patients have not experienced the episodes of "coughing" associated with the administration of sufentanil that he describes in children. The literature on opioid-induced difficult ventilation in neonates and children is at best confused and consists mostly of isolated case reports.

Baraka¹ described post-extubation laryngospasm after opioid-based anesthesia in a 4-yr-old child. Naloxone terminated the laryngospasm. MacGregor *et al.*² described difficult ventilation after initiation of a fentanyl infusion in an intubated neonate. They extubated the child, fearing an endotracheal tube obstruction. They could not ventilate the extubated child. A cardiorespiratory arrest resulted. Naloxone was administered and restored the ability to ventilate. They ascribed the difficult ventilation to chest wall rigidity.

Perhaps the chest wall component plays a larger role in causing difficult ventilation in infants and children than in adults. The only way to clarify the issue is to conduct a prospective study in children similar to that done in adults.³

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References

1. Baraka A: Fentanyl-induced laryngospasm following tracheal extubation in a child. *Anesthesia* 1995; 50:375
2. MacGregor DA, Bauman LA: Chest wall rigidity during infusion of fentanyl in a two-month-old infant after heart surgery. *J Clin Anesth* 1996; 8:251-4
3. Bennett JA, Abrams JT, Van Riper DF, Horrow JC: Difficult or impossible ventilation after sufentanil induction of anesthesia is caused primarily by vocal cord closure. *ANESTHESIOLOGY* 1997; 87:1070-4

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Is Phenylephrine or Sodium Bisulfite Neurotoxic?

To the Editor:—We have read with interest the article by Sakura *et al.*,¹ in which they attributed the transient neurologic deficit seen in patients after spinal anesthesia to phenylephrine added to tetracaine solution. Regrettably the authors failed to acknowledge that the commercially available 0.5% phenylephrine solution (Kowa, Nagoya, Japan) contained 0.1% sodium bisulfite, well known for its neurotoxicity when administered neuraxially.^{2,3} The amount of sodium bisulfite given in their patients ranged from 0.5 to 0.75 mg, approximately half the dose that caused permanent hind-limb paralysis in rabbits² and approximately one tenth the concentration that caused irreversible spinal monosynaptic reflex in rats.³ Unless preservative-free

phenylephrine solution is used in combination with tetracaine, phenylephrine, *per se*, cannot be regarded as an etiology of the reported transient neurologic sequelae.

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