REFERENCES

- 1 Penrose ML, Miyagawa CI, Verme CN, et al. Evaluation of continuous paralyzation guidelines in critically ill patients – accuracy of train-of-four monitoring. *Crit Care Med* 1996; 24; A59, No. 60.

REPLY

The message of our study was that with the same amount of vecuronium, neuromuscular relaxation was deeper when using simple neuromuscular monitoring – visual evaluation of thumb movements.¹

We agree with Dr. Nichani that a patient without any movement of the thumb can cough because the diaphragm and larynx muscles are more resistant to relaxants than are the muscles of the thenar eminence. Muscles fibre size could be the reason for this.² However, thumb movements do mean something. In an anesthetized patient, relaxation is inadequate for most situations if all four responses are present. If one or two responses are visible, relaxation should be adequate for abdominal surgery. In a paediatric ICU population, (unanesthetized patients), TOF stimulation of the thumb may be less relevant.

Rene Martin MD FRCP
Sherbrooke, Québec

REFERENCES

- 1 Martin R, Bourdua I, Thériault S, Tétrault JP, Pilote M. Neuromuscular monitoring: does it make a difference? *Can J Anaesth* 1996; 43: 585–8.
- 2 Ibebunjo C, Srikanth CB, Donati F. Properties of fibres, endplates and acetylcholine receptors in the diaphragm, masseter, laryngeal, abdominal and limb muscles in the goat. *Can J Anaesth* 1996; 43: 475–84.

REPLY

Dr Nichani rightly draws attention to the problems of controlling the administration of muscle relaxants during ventilator therapy in children. Neither adjusting dosage using clinical endpoints (to produce immobility) nor train-of-four responses (aiming for virtual abolition) is ideal. The latter will always overestimate diaphragmatic paralysis and the former results in relative over-dosage and delayed weaning from the ventilator.

The real issue is the recent recognition of cases of prolonged paralysis on withdrawal of therapy.¹ Lack of information about responses which are “normal” in critically ill patients, prevents interpretation of those that are “abnormal.” Muscle relaxants have been exhaustively examined in the surgical patient, but need to be re-evaluated (in comparable ways) in the intensive care

unit. At present, that means by train-of-four responses. Correlations of measured degrees of relaxation with respiratory function, histological and electrophysiological studies in the critically ill patients are indicated. Such studies² could lead to new ways of assessing muscle relaxant dosage in critically ill patients.

Joan C Bevan MD
Vancouver, British Columbia

REFERENCES

- 1 Segredo V, Caldwell JE, Matthay MA, et al. Persistent paralysis in critically ill patients after long-term administration of vecuronium. *N Engl J Med* 1992; 327: 524–8.
- 2 Latronico N, Fenzi F, Recupero D, et al. Critical illness myopathy and neuropathy. *Lancet* 1996; 347: 1579–82.

Feeding: an alternative to sedation in children

For auditory nerve and brainstem evoked response examination performed in infants and children, we usually provide sedation with triclofos sodium. This sedative is given *po* since, in our opinion, there is no justification in placing an intravenous line. Titration of this drug may be difficult. We report a case in which the patient woke up during the examination and another strategy had to be used. A three month old healthy baby, weighing 5 kg, had to undergo this procedure for suspicion of deafness. He was given 5 ml of syrup triclofos sodium. He fell asleep within 30 min and the audiologist started the examination. But, in the middle of the procedure, the baby suddenly awoke and the examination had to be stopped. We were confronted with a dilemma: give another dose of triclofos, with the risk of having a baby not ready for discharge for several hours, or reschedule the examination. Another alternative was proposed by the anaesthetist: we knew that the baby was very hungry (he had not been fed for five hours). It was decided, after consultation with the mother, to try to feed him (with a bottle of formula) with the hope he would fall asleep afterwards. Indeed, during the feeding he fell asleep, and the audiologist could proceed with the examination uneventfully. The baby was discharged home 30 min after the end of the procedure. For ambulatory paediatric sedation, a “post-prandial” sleep is, in certain conditions, an alternative that should be kept in mind.

D Gozal MD
Y Gozal MD
Jerusalem, Israel