Our consistent observation with the priming technique indicates that acceleration of onset of nondepolarizing neuromuscular blocking agents does not improve intubating conditions. We never claimed that priming per se improved intubating conditions.^{2,3,10,13} This misconception should be corrected. This is, however, to be contrasted with Dr. Mirakhur's observation that priming improved intubating conditions.⁹ We noted earlier that administration of 2 mg · kg⁻¹ thiopentone before tracheal intubation resulted in improvement of intubating conditions.¹³ Therefore, it is logical to administer a dose of thiopentone approximately 30 sec before intubation. The factors contributing to the adequacy of intubation conditions have been discussed elsewhere.¹³ Without prior administration of thiopentone, intubating conditions would have been less than perfect and still it would have been similar among the groups.¹³

The onset of complete neuromuscular block (onset time) following rocuronium 0.6 mg · kg⁻¹ observed in our study was 90 (71–109) sec (mean and 95% confidence interval).¹⁰ Using train-of-four (TOF) stimulation, Magorian, Flannery and Miller¹⁵ reported that the onset time of rocuronium 0.6 mg · kg⁻¹ was 89 ± 33 sec (mean ± SD) and after doubling the dose of rocuronium to 1.2 mg · kg⁻¹, the onset time decreased to 55 ± 14 sec.¹⁵ Similarly, Foldes et al.¹¹ and Mayer et al.¹⁶ using TOF stimulation reported that the onset time of rocuronium 0.6 mg · kg⁻¹ was 1.49 ± 0.12 min (89.4 sec) and 1.8 ± 0.4 min (108 sec), respectively. None of the aforementioned investigators have been able to attain the 60-sec onset reported by Dr. Mirakhur.¹⁴ Consistent with our data, Magorian et al.¹⁵ also found that intubating conditions were similar after rocuronium and succinylcholine. In addition, they noted that intubating conditions did not differ after rocuronium or vecuronium.¹⁵

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An unusual explanation for a failed spinal

To the Editor:

We recently encountered a surprising and novel equipment defect that, had it not been noticed, would have led to a failed spinal block.

A 41-yr-old man in good health presented for a haemorrhoidectomy. After placement of an iv cannula and administration midazolam 2 mg iv the patient was asked to sit up and a spinal needle was introduced at the L₃–L₄ interspace without the aid of an introducer needle. Moderate difficulty was encountered in the placement of the needle and several attempts were made with a 25-gauge Quinke point needle ("Phoenix" spinal needle, Kobayashi Shoji K.K., Tokyo, Japan). With proper positioning of the spinal needle free flow of CSF was noted. A syringe containing hyperbaric bupivacaine 5 mg was attached to the needle. Upon injecting, however, it was noted that a jet of fluid was spraying from the proximal portion of the needle shaft, 2 cm from the proximal end of the 9 cm needle. An additional 7.5 mg of hyperbaric bupivacaine was injected in the hope that at least some of the anaesthetic would exit the distal end of the needle. The patient was then immediately returned to the supine position. Examination of the patient revealed that a sen-

sory level of L_1 had been achieved. The surgery proceeded uneventfully.

We cannot help but wonder if this phenomenon explains some of the occasional failed spinals, especially where free flow of CSF has been noted. While we do not customarily examine the integrity of our spinal needles before use, this experience suggests that perhaps we should reconsider this practice.

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LMA - reduction of gas leak

To the Editor:

Small gas leaks are common during positive-pressure ventilation (PPV) with the Laryngeal Mask Airway (LMA).¹ A good seal between LMA and epiglottis prevents leaks, maintains tidal volume and reduces pollution. If the seal is not tight after inflation of the mask to the recommended volume, we propose flexing the patient's neck 10–20° with the LMA *in situ*. Flexion of the neck reduces gas leak during PPV, and tidal volume increases.

The Figure depicts airway pressure during two cycles of PPV using LMA. During the first, the inspiratory plateau pressure decreased 5–6 cm H₂O (0.5–0.6 Kpa), indicating a gas leak. The patient's neck was slowly flexed by 10°, and in the second cycle the inspiratory plateau trace became almost isobaric, indicating leak reduction. An isobaric inspiratory plateau trace during PPV implies

there is no leak. Following neck flexion, tidal volume increased by 100 ml.

We suggest that after placement of the LMA with the neck extended, flexion of neck is needed to improve adherence of the mask and epiglottic rim. Flexion of the neck reduces gas leaks in adults as well as in children. During PPV with the LMA we recommend continuous graphic display of the airway pressure as a monitor. The airway pressure waveform initially helps to diagnose gas leaks and later is a guide for optimal placement of the LMA.

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FIGURE Airway pressure during PPV using the LMA with (C-D) and without (A-B) neck flexion.