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On the Use of Priming to Test for Anaphylactoid Reactions to Nondepolarizing Muscle Relaxants

To the Editor:—In their recent report of a histaminoid reaction to 17 $\mu\text{g}/\text{kg}$ of vecuronium,¹ Durrani and O'Hara advocate the routine administration of priming doses of nondepolarizing relaxants to awake patients as a test for anaphylactoid reactions to these drugs.

The dose of vecuronium administered by the authors (1 mg) was probably chosen because this drug is often reconstituted as 5 cc of a 2-mg/cc solution, and, thus, 0.5 cc is easily administered from a 5-cc syringe.

Engbaek *et al.*² concluded that 10 $\mu\text{g}/\text{kg}$ represents the maximum dose of vecuronium allowable for awake patients. Higher doses often caused subjective feelings of inability to breathe (such as those noted in the case reported by Durrani and O'Hara) and may put patients at risk for aspiration pneumonia.³

Priming doses should be carefully administered on a mg/kg basis, rather than what can be quickly delivered from standard solutions. Furthermore, even allowable priming doses are at or may exceed the margin of safety⁴ of the neuromuscular junction, and some patients may display unexpected sensitivities.²

I, therefore, question the logic of the routine use of

priming doses, even if carefully administered, to detect rare histaminoid reactions, since the neuromuscular effects of these drugs are often not benign.

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In Reply:—We appreciate the comments made by Dr. Mitchel Sosis regarding our clinical case report.¹ A priming dose of 1 mg (16.6 $\mu\text{g}/\text{kg}$) was given because of circumstances described by Dr. Sosis. Since then, we have been using tuberculin syringes for more precision of priming doses.

None of the anesthetic agents and adjuvant drugs are completely benign in any dosages, and, therefore, it is healthy to express concerns and observe vigilance.

We believe that an optimum priming dose is 10 $\mu\text{g}/\text{kg}$, as shown by Toboada *et al.*² Our intent was not to recommend either higher priming doses, or the use of the priming principle for the sole purpose of detecting histaminoid reaction, although routine use of priming dose will help detect histaminoid reaction in addition to facilitating rapid endotracheal intubation.

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