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### Preferred Treatment of Fentanyl-induced Postoperative Rigidity

*To the Editor:*—Dr. Christian and co-workers appropriately identified the problem of postoperative rigidity after fentanyl anesthesia.<sup>1</sup> This occurrence, as well as that of biphasic respiratory depression, is an important aspect to be aware of in regard to the usage of high-dose fentanyl. All of the author's patients had significant chest wall rigidity develop 5-7 hours after the induction of anesthesia with fentanyl. The last sentence of the article indicated that the rigidity may be attenuated by naloxone or neuromuscular blocking agents. In the period following high-dose fentanyl anesthesia (usually used in patients for coronary bypass surgery or those with an unstable cardiovascular system), a sudden antagonism of the narcotic effect may lead to undesirable changes in cardiovascular hemodynamics secondary to sudden increases in catecholamine activity. Naloxone does have significant CNS impact as evidenced by elevated concentrations of dopamine in brain tissue within minutes of naloxone-precipitated withdrawal in morphine-dependent mice and rats.<sup>2,3</sup> Furthermore, several authors have noted adverse clinical hemodynamic effects with even low doses of naloxone given to reverse narcotic anesthesia in both humans and dogs.<sup>4-6</sup> These studies demonstrate a significant increase in heart rate, cardiac index, blood pressure, left ventricular stroke work, and myocardial oxygen consumption (60-70% increase from prenaloxone values). Therefore, we strongly advocate the use of neuromuscular blockers to treat this problem rather than naloxone. Specifically, we recommend metacurine because it produces minimal histamine release and clinically insignificant changes in hemodynamic parameters.

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