

Fentanyl-induced cough during general anesthesia: a different perspective

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Dear Sir,

We refer to the recently published article by Yu and co-workers [1] titled “Premedication with intravenous dexmedetomidine-midazolam suppresses fentanyl-induced cough”.

In this article, the authors observe incidences of fentanyl-induced cough (FIC) between 0 and 63.6 %. In our experience, the incidence FIC is much lower. In fact, we rarely observe coughing during induction of general anesthesia in our practice. Typically, we administer an intravenous preinduction bolus dose of 100 µg via a peripheral intravenous cannula to our adult patients. This equates to approximately half the dose quoted by the authors (1.5 vs. 3.0 µg/kg), based on a standard 70 kg patient. The apparent lower incidence of FIC observed in our practice is at least partly supported by Phua and coauthors [2], who have demonstrated that the injection of fentanyl 1.5 µg/kg via a peripheral venous line elicits cough in just 28 % of patients. A similar incidence of FIC (33 %) is documented by Shen et al. [3] following a bolus of fentanyl 2 µg/kg.

A recently published randomised controlled trial by QiFeng Tang and co-workers [4] involving 400 patients demonstrated that a priming lower dose of fentanyl is effective to suppress FIC. They recommend using a priming dose of 0.5 µg/kg to suppress cough during the induction of anesthesia. In addition, they found the incidence of FIC to be positively correlated with the dose of

fentanyl used, as suggested by our observations.

However, there are cases where FIC is particularly undesirable such as in patients with cerebral aneurysms, brain trauma, open eye injury, dissecting aortic aneurysm, pneumothorax and hypersensitive airway disease [5]. In such cases, perhaps the method used by QiFeng Tang and co-workers is more suitable as it involves the administration of a single agent, thus avoiding any potential complications resulting from polypharmacy. In fact, a known side effect of pretreatment with dexmedetomidine involves the induction of bradycardia and hypotension [6].

Conflict of interest None.

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