
Letters to the Editor

**NOT ONLY AGE, BUT ALSO
NARCOTIC AGENTS AND TYPES
OF PROCEDURE COULD AFFECT
KETAMINE DOSAGE**



To the Editor:

With great interest we read the article by Forrester et al. showing that younger children (<3 years of age) received higher total dosages of ketamine for procedural sedation as compared with older children (3–18 years of age) (1). Although this study might be useful to anticipate the dose of ketamine during procedural sedation in children, caution is warranted in interpreting the results.

First, the authors have concluded that children < 3 years of age received more frequent ketamine doses as well as higher standardized repeat doses as compared with older children. However, the results would be modified by the use of narcotics—those who received a narcotic would receive a significantly lower dose of ketamine. As narcotic agents could enhance the selective actions of ketamine, the age-related differences in the dosage and timing of ketamine administration might reflect narcotic use (2,3). To address this concern, further analysis with stratification by age and use of narcotics would be beneficial.

Second, the kind of emergency procedures that required sedation differed across the different age groups. Indeed, sedation was commonly used for laceration repair or abscess drainage in younger children, whereas it was used for fracture reductions in older children. Thus, the dosages of ketamine might depend on the degree of invasiveness of the procedure. Therefore, we also suggest that a stratified analysis by the type of procedure would be beneficial to enhance the study inferences.

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**REPLY TO “NOT ONLY AGE,
BUT ALSO NARCOTIC AGENTS
AND TYPES OF PROCEDURE
COULD AFFECT KETAMINE
DOSAGE”**



To the Editor:

We thank Drs. Suzuki and Goto for their insightful Letter to the Editor regarding ketamine dosing in children. We agree that ketamine requirements might be affected by narcotic administration. The data found in our study support this belief. As we stated in the article, “Among all patients, those who received a narcotic received significantly less ketamine (in mg/kg/h) when compared with those who did not receive a narcotic (1.8 mg/kg/h [IQR 1.1–2.8] vs. 2.1 mg/kg/h [IQR 1.2–3.3], respectively, $p = 0.04$).”

We also agree that ketamine requirements might depend on the degree of invasiveness of the procedure being performed. As stated in their letter, in our study, we indeed found that sedation was more commonly used for laceration repair or abscess drainage in younger children, whereas it was more commonly used for fracture reductions in older children.

A stratified analysis factoring in age, narcotic administration, and procedure type would aid in further accounting for these variables. In analyzing the data for our study, we did explore these potential relationships, however, we found that the sample size for many of the strata were too small to reach statistically meaningful conclusions.

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