Is there a racial care gap in the recovery room treatment of pediatric postoperative pain?

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Introduction

An increasing number of children are undergoing ambulatory surgical procedures and many suffer clinically significant pain upon recovering from anesthesia. When pain management has been systematically examined in other settings, such as pediatric emergency departments, racial disparities in treatment choices have been clearly identified. However, to our knowledge this has not been studied in the pediatric perioperative setting.

Objective

To assess racial differences in post-anesthesia care unit (PACU) analgesia administration across racial groups.

Design, Setting and Participants

A prospective, observational, cross-sectional study of 771 children aged 4-17 years who underwent elective outpatient surgical procedures at a tertiary children’s hospital. Racial differences in probability of receiving analgesia in the PACU were assessed using bivariate and multivariable logistic regression analyses. Exposure was parental report of race/ethnicity (white vs nonwhite minority).

Main Outcomes and Measures

Administration of analgesia in the PACU (overall and intravenous (IV) opioid) by race/ethnicity. We also examined analgesia administration according to pain severity across racial groups.

Results

A total of 294 children (38.2%) received at least one class of analgesia; while 210 (27.2%) received intravenous opioid analgesia in the PACU. We found no statistically significant differences by racial group in the rates of PACU administration of any analgesia (white 36.8% vs. minority 43.4%; P=0.134) or non-opioid analgesia (white 15.8% vs. minority 15.1%; P=0.832). However, minority children were significantly more likely to receive IV opioid analgesia in the PACU than their white peers (p=0.03). Furthermore, among those with mild pain (N=566), minority children were more likely than their white peers to be given IV opioids (white 11.1% vs. minority 22.2%; P=0.002). On multivariable analysis, minority children had a 63% higher adjusted odds of receiving IV opioids in the PACU compared to their white peers with an adjusted odds ratio of 1.63 (95% CI, 1.05-2.62; P=0.03). Overall, we found no significant difference by racial group in the likelihood of a child being treated for severe postoperative pain (P=0.437).

Conclusions

Acute postoperative pain is commonly a sequela of ambulatory surgery. Receipt of analgesia for pain was not substantially associated with a child’s race. However, minority children tended to receive stronger intravenous opioids for the management of mild pain. From this single institution study in the perioperative setting, there does not seem to be the same racial disparities in pain treatment choices that have been previously identified in other care settings.

References