

INTRODUCTION

- Ketamine & Opioids are commonly administered for acute pain control in trauma patients
- Compounded use may be associated with airway compromise in the prehospital setting
- Gap:** Effect of combined analgesia on the risk of airway compromise in trauma
- Hypothesis:** Trauma patients who received prehospital ketamine in addition to opioids have an increased likelihood of airway compromise compared with those who received ketamine alone

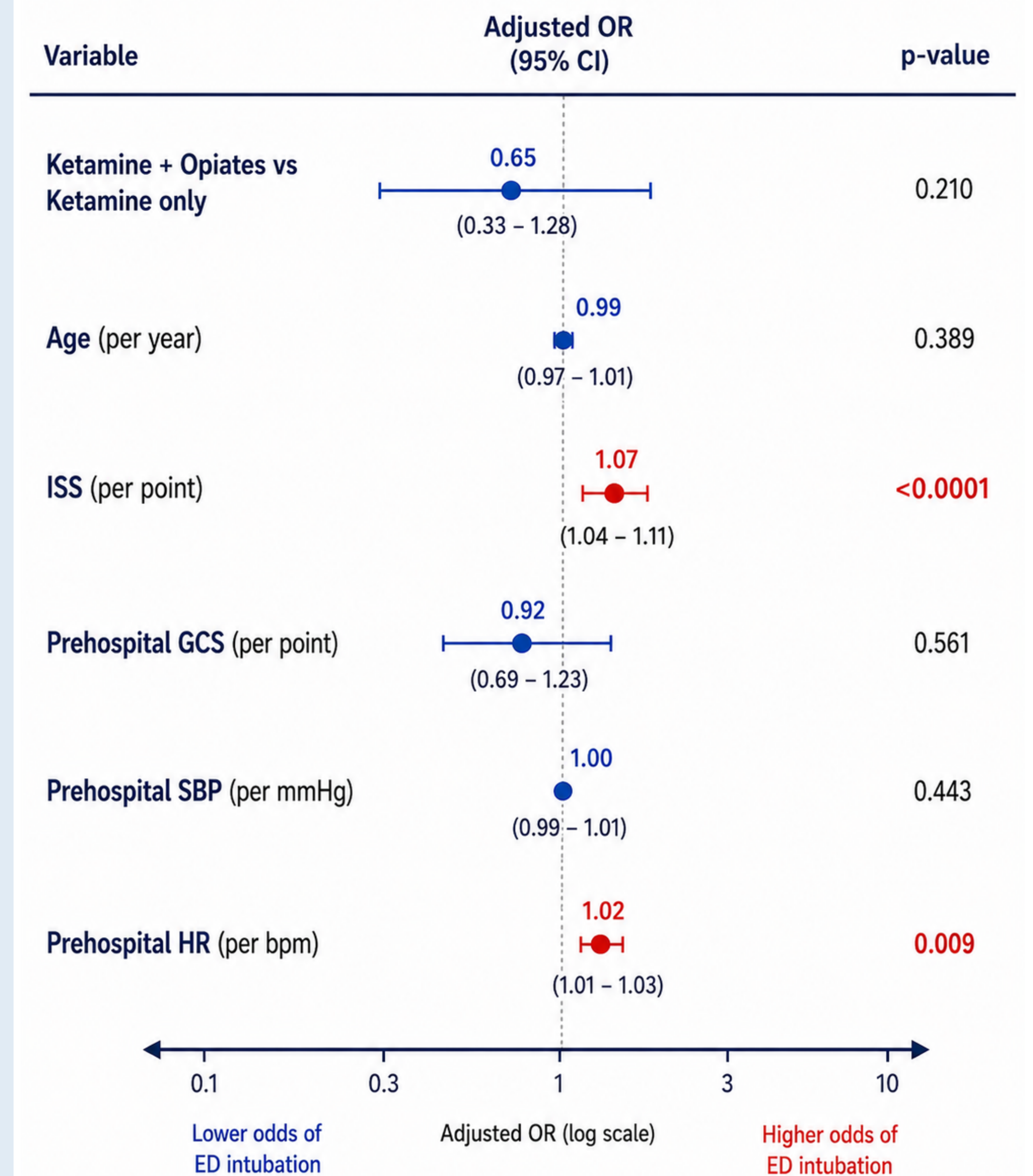
METHODS

- Design:** Multicenter retrospective cohort study
- Setting:** 18 trauma centers (16 Level I/II) over a 2 year period
- Population:** Adult trauma patients who received prehospital opioid and/or ketamine for pain management
- Exclusions:** Trauma transfers and GCS <8
- Comparison:** Ketamine + Opioids Vs Ketamine only
- Outcome:** Emergency department intubation
- Statistics:** Bivariate analyses and multivariable logistic regression

RESULTS

STUDY COHORT			
Total patients included n = 627			
Ketamine only n = 334 (53%) Ketamine + opioids n = 293 (47%)			
Characteristic	Ketamine only (n = 334)	Ketamine + opioids (n = 293)	p value
Age, median (years)	45.5	45.0	0.617
BMI, median (kg/m ²)	26.7	27.5	0.200
Injury Severity Score, median	9	9	0.431
Ketamine dose, median (mg)	25	25	0.372
Prehospital GCS, median	15	15	0.055
Prehospital SBP, median (mmHg)	134	136.5	0.620
Prehospital HR, median (bpm)	89	90	0.297
Male sex, n (%)	208 (62.3%)	196 (66.9%)	0.228
Traumatic brain injury, n (%)	22 (6.6%)	24 (8.2%)	0.448
Alcohol intoxication, n (%)	52 (15.6%)	38 (13.0%)	0.354
Blunt mechanism, n (%)	275 (82.3%)	271 (92.4%)	0.0002*

Multivariable Logistic Regression for ED Intubation



DISCUSSION

- Prehospital ketamine administered with opioids was not independently associated with increased odds of ED intubation
- Combining ketamine with opioids permits lower doses of each analgesic, potentially minimizing respiratory compromise while maintaining adequate pain control
- Limitations: Retrospective observational design precludes causal inference

CONCLUSION

These findings support the continued use of analgesic-dose ketamine as an adjunct to opioids for prehospital trauma pain management without evidence of increased airway risk