

24-hour postoperative oral morphine equivalent consumption following cesarean delivery stratified by race: a single-center retrospective observational study

Michael Campos M.S.¹, Joanna Stacey M.D.², Courtney Shaver, Michael Hofkamp M.D.³

1. Texas A&M School of Medicine, 2. Department of Obstetrics and Gynecology, Baylor Scott and White Medical Center - Temple 3. Department of Anesthesiology, Baylor Scott and White Medical Center - Temple



Introduction

- Racial disparities in postop pain management for CD have been previously reported
- 02/2021 - enhanced recovery after cesarean delivery (ERAC) protocol implemented
- **Primary Aim:** Determine if difference existed in postop analgesia for cesarean delivery by race and if implementation of an ERAC protocol affected any racial disparities

Methods

- Cesarean delivery Feb 1, 2020 to Jan 31, 2022
- Stratified patients by self-identified race - B/W/H
- Randomized 50 patients from each cohort for the period of Feb 1, 2020 to Jan 31, 2021 and Feb 1, 2021 to Jan 31, 2022 to arrive at 300 patients
- Recorded data on anesthetic technique, oral morphine equivalent consumption, and pain scores

Results

Randomization

	Feb 2020 – Jan 2021	Feb 2021- Jan 2022
Black or African American	88	75
Hispanic	87	112
White	213	194

Variable	White or Caucasian (N=100)	Hispanic (N=100)	Black or African American (N=100)
Anesthetic technique			
<i>Combined spinal epidural</i>	<i>85 (85%)</i>	<i>87 (87%)</i>	<i>86 (86%)</i>
<i>Single injection spinal</i>	<i>15 (15%)</i>	<i>12 (12%)</i>	<i>14 (14%)</i>
<i>Intrathecal catheter</i>	<i>0</i>	<i>1 (1%)</i>	<i>0</i>
24 hour postoperative oral morphine equivalents (mg) (median (IQR))	20 (0-47.5)	20 (0-40)	20 (0-60)
Number of pain scores documented for 24 hour postoperative period	6 (4-8)	6 (4-7)	6 (4-9)
Arithmetic mean pain of scores for first six postoperative hours (median (IQR))	2.3 (0.0-3.5)	2.7 (0.8-4.0)	3.5 (1.7-5.5)

- No significant difference in 24-hour postoperative oral morphine equivalents
 - W vs H: (p=0.38)
 - W vs B: (p= 0.47))
- No significant difference in number of pain scores recorded
 - W vs H: (p=0.56)
 - W vs B: (p=0.35)
- Secondary outcome: Statistically significant difference in pain scores between White and Black patients for the first 6 postoperative hours
 - W vs B: (2.3 vs 3.5 (p < 0.01))

Discussion

- We did not detect racial disparities in postoperative analgesia for cesarean delivery during the first 24 postoperative hours following cesarean delivery
- Given previously reported evidence of racial disparities in postoperative pain management following cesarean delivery ¹, our results *may* represent a narrowing of the racial disparities gap
- Limitations – Possibly underpowered to detect smaller difference, only examined patients who had SSS or CSE anesthesia, retrospective data set



References

1. Johnson JD, Asiodu IV, McKenzie CP, Tucker C, Tully KP, Bryant K, Verbiest S, Stuebe AM. Racial and Ethnic Inequities in Postpartum Pain Evaluation and Management. *Obstet Gynecol.* 2019 Dec;134(6):1155-1162