

A comparison of postoperative recovery between subjects who had activation and removal of labor epidural catheter for unscheduled intrapartum cesarean delivery: a prospective survey-based study

Alyson Win¹, Emily Sharpe², Riddhi Rane³, James Risinger⁴, Courtney Shaver⁵, Michael Hofkamp⁶

¹Texas A&M School of Medicine, Temple, TX; ²Mayo Clinic Alix School of Medicine, Rochester, MN; ³Texas A&M School of Medicine, Temple, TX; ⁴Texas A&M School of Medicine, Temple, TX; ⁵Baylor Scott and White Research Institute, Temple, TX; ⁶Baylor Scott and White Health Institute, Temple, TX



MEDICINE

Introduction

- **Intrapartum cesarean delivery:** activate epidural vs removal of epidural followed by new neuraxial technique
- **Primary aim:** compare postoperative recovery after CD between patients who had an activation of their labor epidural catheter and patients who had removal of their labor epidural catheter followed by new neuraxial technique
- **Secondary aim:** compare 24-hour postoperative oral morphine equivalent (OME) consumption between the two cohorts

Methods

- Patients with an indwelling labor epidural who had an unscheduled intrapartum CD from July 1, 2022 to December 31, 2022.
- Eligibility for inclusion:
 - Regional anesthesia was attempted
 - They were English speaking
 - if wound closure had taken place between 24 and 72 hours prior
 - They were 18 years of age or older.
- ObsQoR-10 survey¹ was administered at bedside after obtaining informed consent

Results

Variable	Activation of labor epidural catheter (N=28)	Removal of labor epidural catheter followed by new neuraxial technique (N=37)	P value
Obstetric indication for cesarean delivery			<0.01*
Arrest of labor	11 (39%)	27 (73%)	←
Fetal distress	17 (61%)	← 10 (27%)	
Time from last labor epidural placement to entering operating room (minutes) (mean (SD))	680 ± 445	978 ± 430	<0.01*
ObsQoR-10 score (mean (SD))	65 ± 14	60 ± 13	0.16 ←
24-hour postoperative oral morphine equivalent (mg) (mean (SD))	41.9 ± 31.5	29.6 ± 26.2	0.09 ←
24-hour intravenous ketorolac administration (mg) (median (IQR))	120 (120-120)	120 (90-120)	0.37
24-hour oral acetaminophen administration (mg) (median (IQR))	4000 (4000-4000)	4000 (4000-4000)	0.82

Discussion

- The mean ObsQoR-10 scores of the activated labor epidural cohort and the new neuraxial cohort did not have a clinically or statistically significant difference.
- The mean values of 24-hour OME consumption did have a potentially clinically significant difference of approximately 12 mg between the cohorts but was not statistically significant.
- A limitation of our study was that we may have been underpowered to detect a clinically meaningful difference in 24-hour OME consumption between the cohorts.
- Another limitation of our study was that patients in the activated catheter cohort were more likely to have fetal distress as the indication for CD and had a shorter time from placement of a labor epidural catheter to entering the operating room.



References

1. Sultan P et al. Evaluation of inpatient postpartum recovery using the Obstetric Quality of Recovery-10 patient-reported outcome measure: a single-center observational study. Am J Obstet Gynecol MFM. 2020;2:100202