Racial and Ethnic Disparities in Epidural Usage and Cesarean Delivery Rates

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Background

- Healthcare disparities between racial and ethnic groups exist across many domains including obstetrics
- Previous national studies have shown racial differences in the use of epidural analgesia and cesarean delivery rates[1,2]
- The purpose of this study was to assess whether these trends exist at our tertiary hospital that serves a racially diverse patient population

Methods

- Retrospective chart cohort study of all women who gave birth at LIJMC between Jan 1, 2020 – Dec 31, 2021
- Demographic, mode of delivery, and anesthetic information was extracted from patients' medical records
- Racial and ethnic group identification was self reported
- Chi-squared analyses were conducted to determine independence of variables

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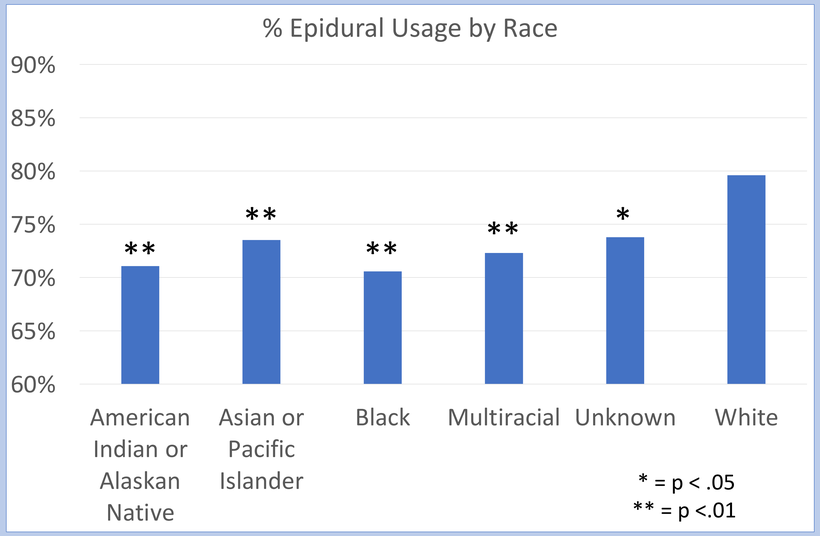
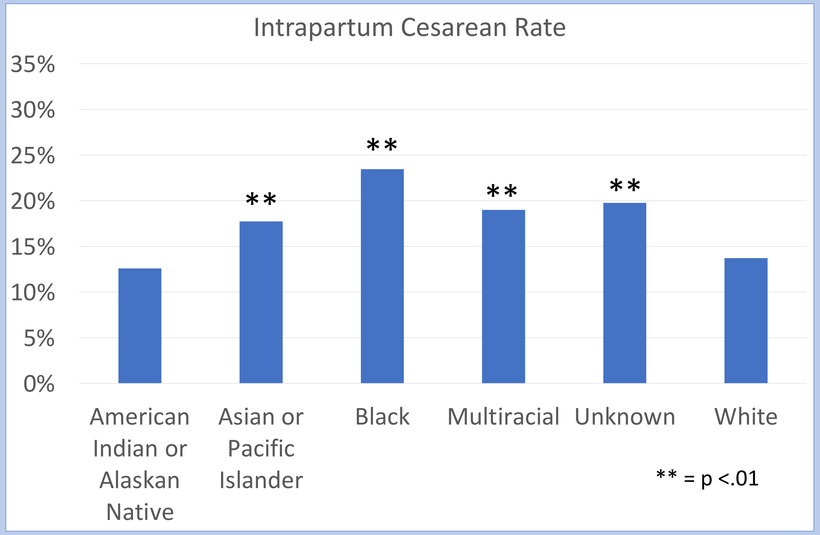
Results

Race	Patients	%
American Indian or Alaskan Native	160	1.2
Asian or Pacific Islander	2905	22.1
Black	2820	21.5
Multiracial	2635	20.1
Unknown	248	1.9
White	4352	33.2
Total	**13120**	**100**





- There was a significant difference in the rates of epidural analgesia based on racial/ethnic group (p<0.01)
- White women (79.60%) were more likely to receive epidural analgesia compared to all other racial/ethnic groups studied (unknown ethnicity (73.79%, p=0.03) vs Asian or Pacific Islander (73.52%, p<0.01) vs Multiracial (72.31%, p<0.01) vs American Indian or Alaskan native (71.07%, p<0.01) vs Black (70.58%, p<0.01))
- The overall rate of intrapartum cesarean delivery was 17.86%, which differed amongst racial groups (p<0.01)
- Black (23.46%, p<0.01), Multiracial (18.99%, p<0.01), Asian or Pacific Islander (17.73%, p<0.01), and women of unknown (19.76%, p<0.01) ethnicity had a higher rate of intrapartum cesarean delivery compared to White women (13.72%). 12.58% American Indian or Alaskan native parturients had an intrapartum cesarean delivery

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Discussion

- Similar racial and ethnic disparities in obstetric anesthesia that have been reported on a national scale were also seen in the present study at our institution
- Black, Asian or Pacific Islander, Multiracial, and women of unknown ethnicity were less likely to receive epidural analgesia compared to White women, evidencing continued inequities in healthcare
- Most non-White racial/ethnic categories except for American Indian or Alaskan native showed higher rates of cesarean delivery
- These differences may potentially be explained by several factors including higher rates of comorbidities, disparate access to antenatal care, lack of trust in the health system, and clinician bias among others
- Further research is necessary to elucidate these potential confounders such as prospective studies utilizing the obstetric comorbidity index
- Implementing enhanced recovery after cesarean (ERAC) standardized care may help address racial disparities

Limitations

- Single center retrospective study
- Patient socioeconomic status not factored into study
- Indications for cesarean delivery were not evaluated

References

1. Racial differences in the use of epidural analgesia for labor. Glance LG, Wissler R, Glantz C, Osler TM, Mukamel DB, Dick AW. Anesthesiology. 2007;106:19–8.
2. An Update on Racial and Ethnic Differences in Neuraxial Anesthesia for Cesarean Delivery. Burton BN, Canales C, Du AL, Martin EI, Cannesson M, Gabriel RA. Cureus. 2021;13(11):e19729.