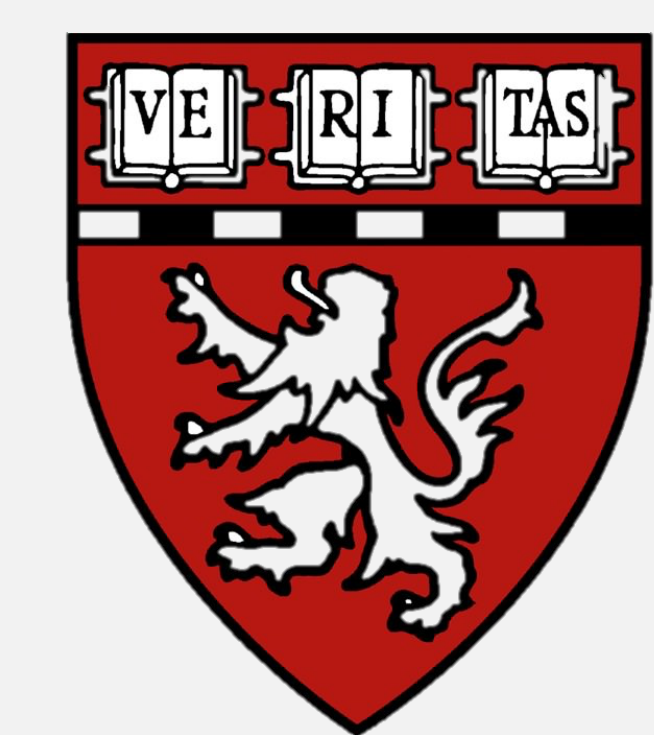




Timing of Labor Epidural Analgesia Placement Among Primigravida non-White and non-English Speaking Patients: A Retrospective Cohort Study



Diego Villela-Franyutti MD, Mario I. Lumbreras-Marquez MD MMSc, Mahyar Heydarpour PhD, Muhammad Rehman, Rafael Vazquez MD, Dominique Arce MD MPH

Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women's Hospital, Harvard Medical School

Department of Anesthesia, Critical Care & Pain Medicine, Massachusetts General Hospital, Harvard Medical School

Background

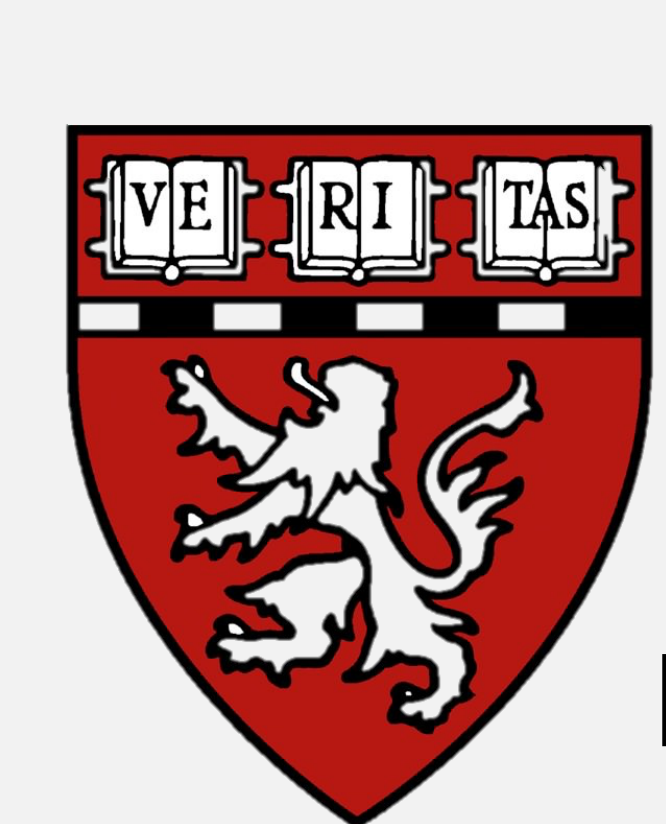
- Black, Hispanic, and limited English proficiency (LEP) parturients are less likely to utilize and anticipate utilizing labor epidural analgesia (LEA) than White parturients^{1,2}

Objective

- To determine if, beyond the well-documented disparity in LEA use, there also exists a disparity in the timing of epidural catheter placement with non-White and LEP receiving neuraxial analgesia later in labor as defined by greater cervical dilation at the time of placement compared to White and English proficient patients

Methods

- IRB-approved single-center retrospective cohort study conducted over one year (2019)
- All primigravid patients requesting LEA at our center were included (n=1,203)
- Race, spoken language, insurance type, and cervical dilation at the time of epidural placement were extracted from the medical record and analyzed to determine mean cervical dilation (cm) at the time of LEA initiation and compared between groups using one-way analysis of variance (ANOVA)



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Results

- Mean cervical dilation at time of placement was 4.73 cm (SD 2.33) for White patients and 5.19 cm (SD 2.52) for Black patients
- Mean cervical dilation was 4.79 cm (SD 2.34) for primary English-speaking parturients vs. 4.8 cm (SD 2.58) for parturients with LEP
- A **significant** difference was observed in cervical dilation at the time of epidural placement when **comparing Black patients (5.19 cm [SD 2.52]) with those identifying as Other race (4.54 cm SD [2.14]; $P = 0.035$; Figure)**

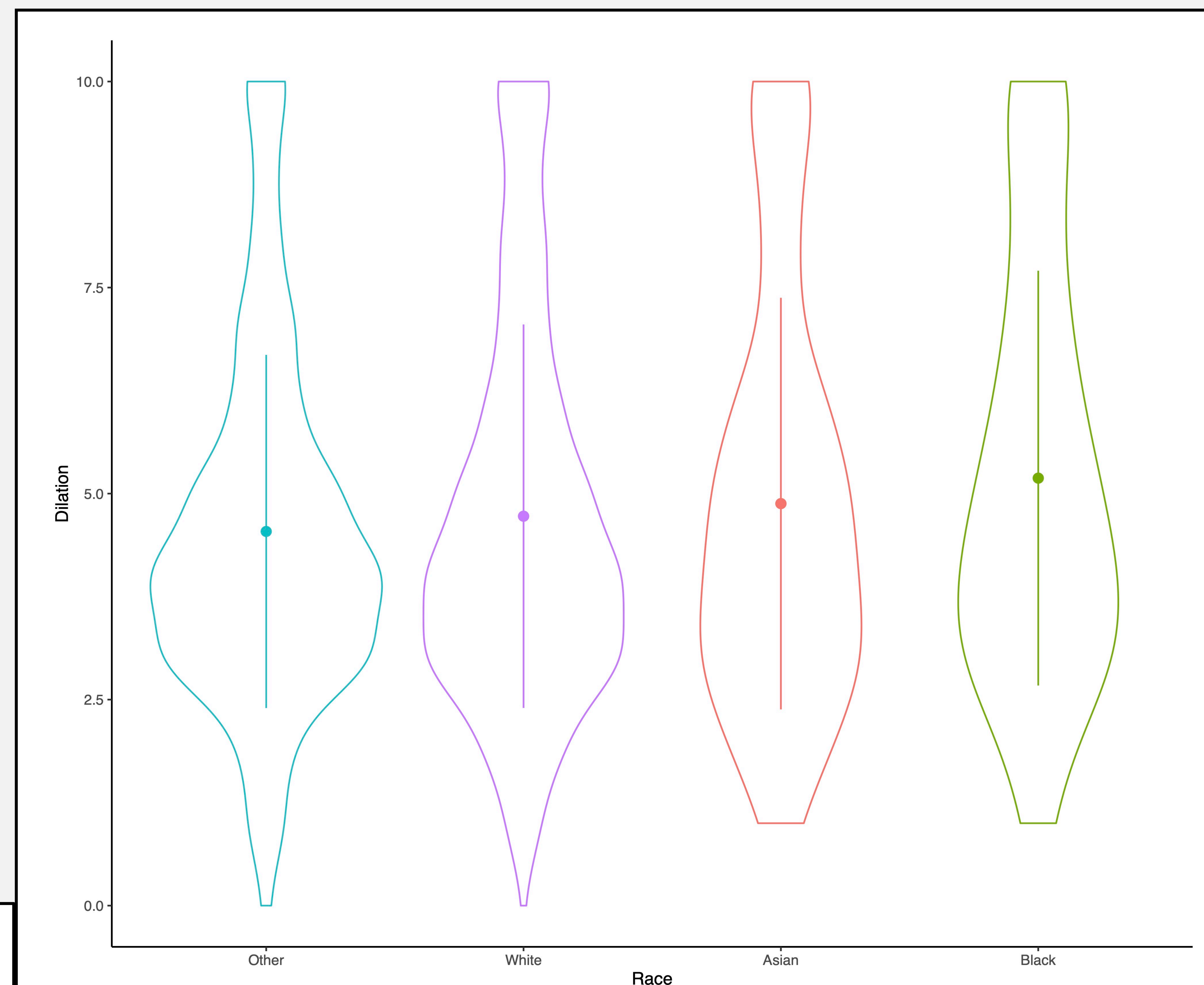
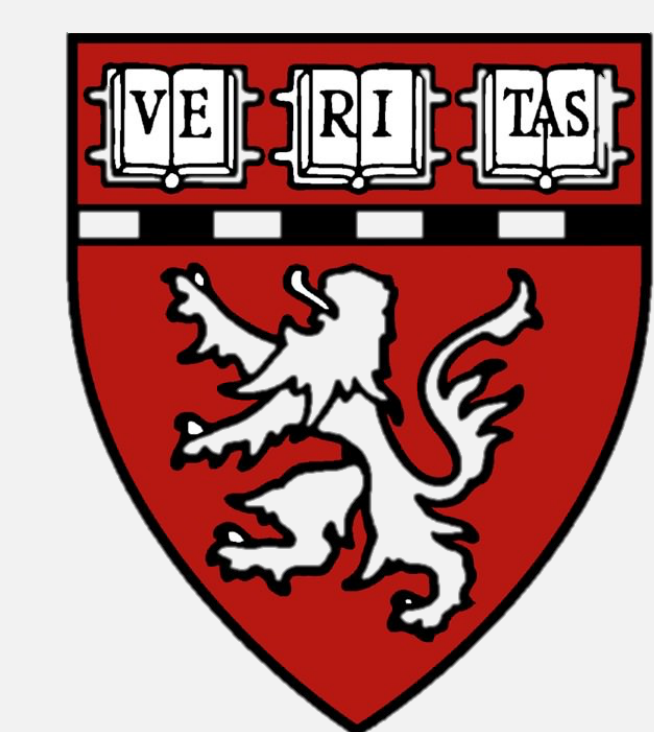


Figure. Violin plot highlighting the mean cervical dilation (cm) and corresponding standard deviation stratified by race at the time of labor epidural analgesia initiation.



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Conclusions and Next Steps

- Our results suggest that Black patients receive labor analgesia further along in their labor process
- The reasons for this are likely multifactorial, including cultural differences, lack of a comprehensive birth plan, cognitive overload associated with patient teaching on labor and delivery, access to adequate prenatal labor analgesia education, and patient preference, among others
- To confirm our findings, we plan to increase our sample size and expand our study population to include multiparous patients, in addition to investigating differences associated with parturient ethnicity

References

1. Lange EMS et al. Semin Perinatol. 2017;41(5):293-298
2. Toledo P et al. Anesth Analg. 2016;122(1):204-209