The effect of labor epidural analgesia on obstetric outcomes among asylum seekers: A retrospective cohort study

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Background and Goal of Study
Research has shown racial and ethnic disparities with the use of neuraxial anesthesia for labor and cesarean delivery. In this study we examined the maternal outcomes and anesthetic management in a cohort of Eritrean asylum seekers, particularly whether the use of epidural labor analgesia decreased postpartum complications among the study cohort.

Materials and Methods:
In this 10-year retrospective cohort study the medical records of all Eritrean asylum seekers with singleton pregnancies delivering at Rabin Medical Center between the years 2012-2017 were reviewed. The study cohort was divided according to asylum seekers undergoing vaginal delivery with epidural analgesia (EA) and asylum seekers undergoing a vaginal delivery without EA. Demographic, obstetric, anesthetic and neonatal data was collected and documented, in order to compare the maternal between the two groups.

Results and Discussion
• Overall 839 deliveries were included in the study. Of them, 336(40.0%) received epidural analgesia and 503(60.0%) did not. Women who received EA were younger (28.1±6.5 vs. 29.7±6.1 years, p<0.001) with higher rates of nulliparity (87 vs. 77%, p=0.001). Parturients who received EA presented lower rates of cesarean birth (15% vs 20%, p=0.04) and general anesthesia (0% vs. 11.3%, p<0.001). However, parturients with EA had higher rates of instrumental delivery (25% vs 10%, p<0.001), minor tears (11% vs 20%, p<0.001) and episiotomy (35% vs 25%, p<0.001).
• No difference was found between groups in rates of 3rd and 4th degree perineal tears or PPH or neonatal outcome. Using a logistic regression analysis, epidural analgesia was found to be associated with lower rates of cesarean birth (aOR 0.594 95% CI 0.389-0.909, p=0.016) but higher rates of instrumental delivery (aOR=3.317 95% CI 2.094 - 5.253, p<0.001).

Conclusion
• In a cohort of Eritrean asylum seekers, epidural labor analgesia use was associated with a reduced risk for cesarean section and general anesthesia but increased rate of instrumental delivery.
• These findings highlight the importance of providing prenatal education for this population on the significance of EA and further study on anesthetic management in this patient population.