

Fetal Bradycardia in the Peri-Neuraxial Period: Identifying Parturients at Risk for Cesarean Delivery – A Retrospective Study

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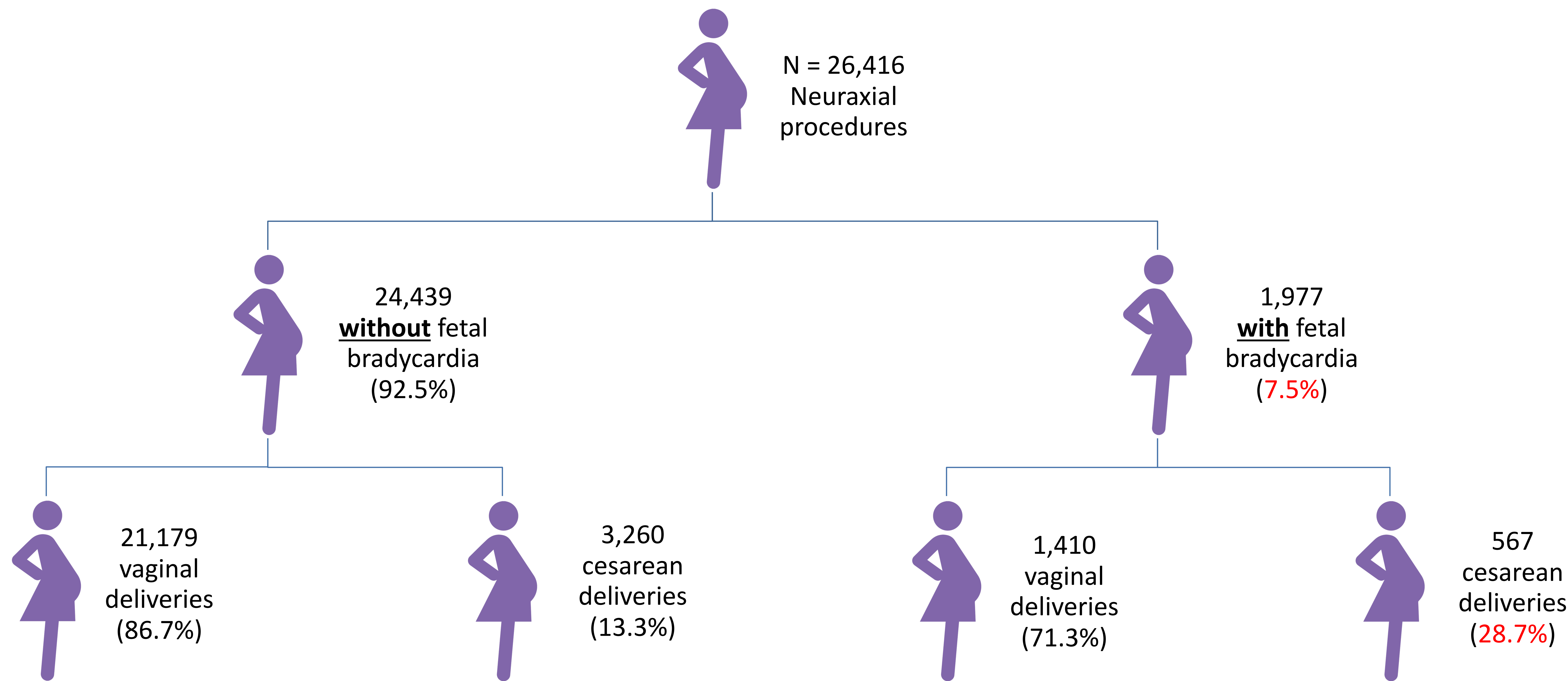
Background

- Neuraxial labor analgesia has been associated with fetal bradycardia due to maternal hypotension, tachysystole, and uterine artery vasoconstriction.
- Study aim: To discern whether parturients with peri-procedural fetal bradycardia are at an increased risk of cesarean delivery.

Methods

- Study period: October 2018 to August 2021.
- Inclusion criteria: All patients who received neuraxial for labor analgesia
- Stratification: Fetal bradycardia within 60 minutes of neuraxial procedure and mode of delivery

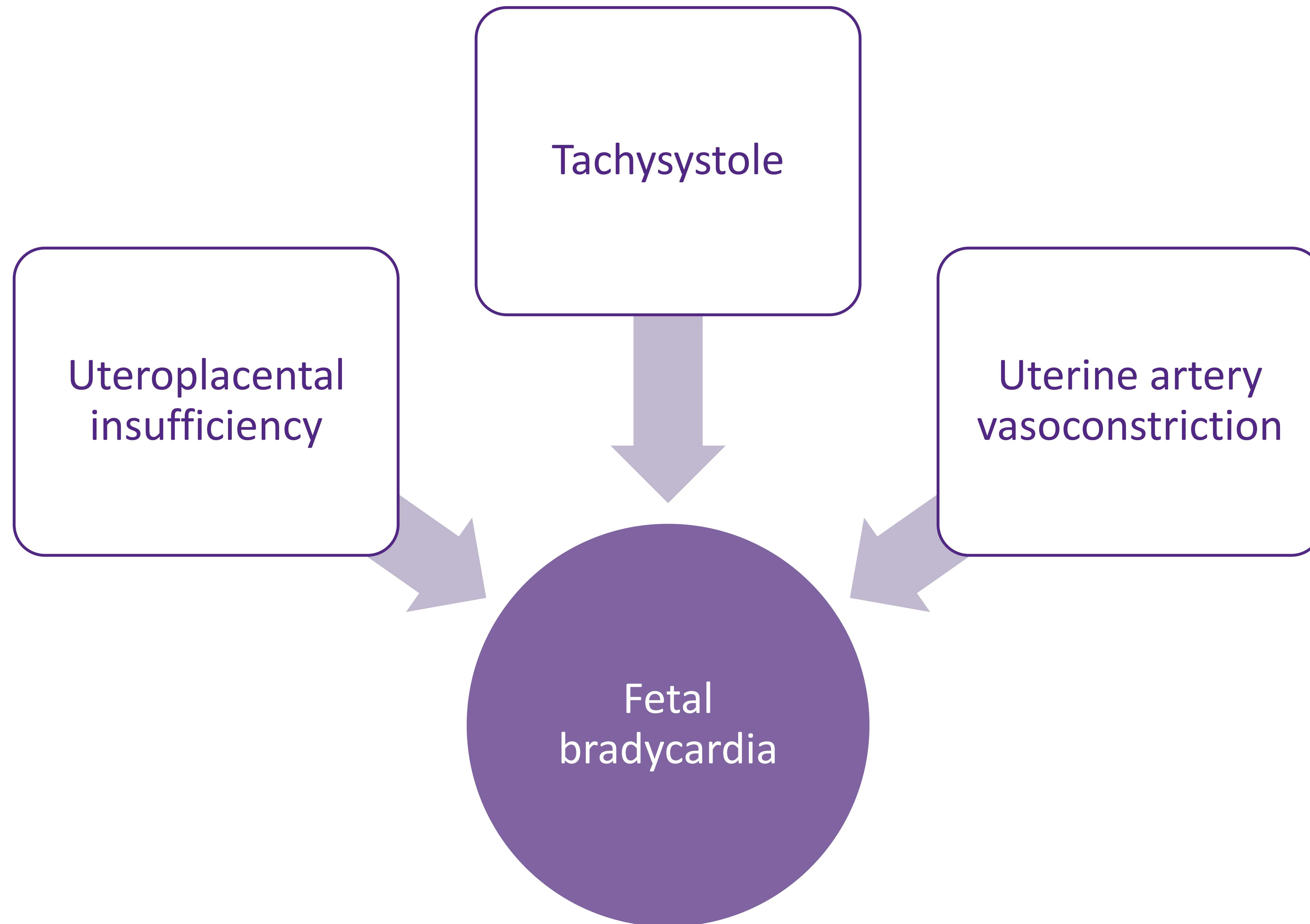
Results



	No fetal bradycardia	Fetal bradycardia	Statistical significance
Age	32.58 ± 4.7y	32.29 ± 4.7y	p = 0.009
BMI	30.51 ± 5.7	30.58 ± 5.7	p = 0.651
Change in pain score	6.93 ± 2.5	7.13 ± 2.5	p = 0.019
Change in mean arterial pressure	22.97 ± 12.1	23.15 ± 11.7	p = 0.511
Time to delivery - vaginal - cesarean	6.53 ± 4.6h 12.18 ± 7.2h	7.91 ± 4.9h 10.47 ± 6.2h	p = 0.0001
Preeclampsia - with - without	395 24044	24 1953	p = 0.199
IUGR - yes - no	608 23831	57 1920	p = 0.315
Placental calcification	3.92%	5.54%	p = 0.001*

*data represents patients with available pathology reports

Discussion



Key Points:

- Neuraxial labor analgesia is associated with fetal bradycardia
- Factors independent from neuraxial have been associated with fetal bradycardia
- Take home: Fetal bradycardia after neuraxial may be a prognostic indicator for cesarean delivery