Parturient

- The co-occurrence of bilateral medial medullary infarction and anterior spinal artery syndrome in pregnancy: A case report
- A case report: Treatment of a patient with ruptured middle cerebral aneurysm in the second trimester of pregnancy
- Obstetric and anesthetic management in parturients with ventriculoperitoneal shunt: a case series
- Erector Spinae Plane Block for Providing Labor Analgesia in a Rural Health Care Setting in India: A Case Series
- Epidural ropivacaine versus bupivacaine for cesarean sections: a system review and meta-analysis
- Quadratus Lumborum Block and Transversus Abdominis Plane Block in Non-emergency Cesarean Delivery: A Systematic Review and Meta-analysis
- Analgesic effect of erector spinae plane block after cesarean section: A randomized controlled trial
- Comparative efficacy of quadratus lumborum type-II and erector spinae plane block in patients undergoing caesarean section under spinal anaesthesia: a randomised controlled trial

A parturient refers to a woman who is in labor or about to give birth. The term is used in medical contexts, particularly in obstetrics, to describe the physiological and medical state of a woman during childbirth.

Key Aspects of the Parturient State

Physiological Changes:

Cardiovascular: Increased cardiac output and blood pressure fluctuations during contractions.

Respiratory: Increased oxygen demand and changes in ventilation patterns.

Neurological: Heightened pain perception due to uterine contractions and cervical dilation.

Hormonal: Release of oxytocin and endorphins to facilitate labor and manage pain.

Phases of Labor:

First Stage:

Latent phase: Early, mild contractions with cervical effacement and initial dilation.

Active phase: Stronger, regular contractions with rapid cervical dilation (usually from 4 to 10 cm).

Second Stage:

Full dilation to delivery of the baby.

Involves active pushing by the parturient.

Third Stage:

Delivery of the placenta.

Fourth Stage:

Immediate postpartum recovery and monitoring.

Pain Management Options for the Parturient:

Non-Pharmacologic: Breathing techniques, massage, hydrotherapy, acupuncture.

Pharmacologic:

Systemic Analgesia: Opioids (e.g., fentanyl).

Neuraxial Techniques:

Epidural anesthesia: Most common for labor.

Combined spinal-epidural (CSE): Quick relief with prolonged pain management.

Spinal anesthesia: Typically used for cesarean delivery.

Considerations in Care:

Monitoring maternal and fetal well-being (e.g., fetal heart rate, uterine contractions).

Managing complications like failure to progress, fetal distress, or maternal exhaustion.

Ensuring informed consent for interventions, including pain relief options or emergency cesarean delivery.

Special Considerations

High-Risk Parturients:

Conditions like preeclampsia, gestational diabetes, or placenta previa require specialized care.

Continuous monitoring and possible intervention are necessary.

Cultural and Individual Preferences:

Respect for the parturient’s birth plan, preferences for pain relief, and support systems.

Psychological Support:

Emotional reassurance and clear communication to alleviate anxiety.

Vasopressors are effective in managing perioperative hypotension in high-risk parturients undergoing Caesarean section (CS). Nevertheless, the optimal vasopressor for addressing hypotension induced by neuraxial anesthesia remains a subject of investigation.

Zhao et al. compared hypotension episodes among high-risk parturients who received ephedrine, noradrenaline, or phenylephrine by searching four electronic databases and reviewing the relevant references. Inclusion criteria encompassed randomized controlled trials directly comparing two or more vasopressors in the context of managing hypotension in high-risk parturients undergoing neuraxial anesthesia for CS. A network meta-analysis was performed using fixed-effects and Bayesian random-effects models.

They analyzed 13 trials involving 1,262 patients. While our direct and indirect comparisons revealed no reveal statistically significant differences in the number of hypotensive episodes among patients treated with different vasopressors, vasopressors were hierarchically ranked. Phenylephrine (Rank of the best choice = 0.81) exhibited the highest effectiveness in preventing hypotension, followed by ephedrine (Rank of the best choice = 0.10) and noradrenaline (Rank of the best choice = 0.09). Bradycardia occurrence was higher in patients administered phenylephrine compared to those given noradrenaline (risk ratio [RR]: 0.23; 95% confidence interval [CI]: 0.03 to 0.85) or ephedrine (RR: 0.01; 95% CI: 0.00 to 0.12). Notably, patients treated with phenylephrine or noradrenaline experienced reduced occurrences of nausea or vomiting compared to those who received ephedrine (RR: 0.37; 95% CI: 0.19 to 0.59 for phenylephrine and RR: 0.28; 95% CI: 0.10 to 0.75 for noradrenaline). Regarding fetal outcomes, no significant differences were noted between noradrenaline and phenylephrine. Overall norepinephrine in maternal outcomes may be more favorable.

The findings suggest the potential advantages of phenylephrine for reducing hypotensive episodes in high-risk parturients undergoing CS. Noradrenaline may emerge as an alternative, particularly for women at high risk of caesarean delivery [1)]

1)
Zhao S, Chen Q, Qin P, Liu L, Wei K. Comparison of vasopressors for management of hypotension in high-risk caesarean section under neuraxial anesthesia: a systematic review and network meta-analysis. BMC Anesthesiol. 2024 Dec 4;24(1):447. doi: 10.1186/s12871-024-02819-9. PMID: 39633265; PMCID: PMC11616188.