Caesarean section

- Simultaneous surgical management of a giant tuberculum sellae meningioma and pregnancy-related complications: a case report and literature review
- Subdural Hematoma Presenting with Tinnitus After Spinal Anesthesia for Cesarean Section: A Case Report
- Calcified intracranial epidermoid cyst presented during pregnancy: A case report
- Chiari III Malformation: Quantification of Long-term Outcome After Early Surgery
- Acquisition of Childcare Skills by a Patient With Transient Paraparesis Following Epidural Anesthesia for Cesarean Section
- Quadratus lumborum block for total abdominal hysterectomy: a double-blind, randomized, controlled trial
- Internal Carotid Artery Occlusion Associated with Cardiac Sarcoidosis during the Postpartum Period Treated with Thrombectomy: A Case Report
- Recurrent intracranial myoepithelioma: clinical course and long-term follow-up. Illustrative case

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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)]

Fetal aqueductal stenosis (AS) is one of the most common causes of congenital hydrocephalus, which increases intracranial pressure due to partial or complete obstruction of cerebrospinal fluid flow within

the ventricular system. Approximately 2-4 infants per 10,000 births develop AS, which leads to progressive hydrocephalus, which enlarges the head often necessitating delivery by caesarean section

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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.