

IMPACT OF PREECLAMPSIA ON LABOR OUTCOMES AND MATERNAL-FETAL COMPLICATIONS IN CONTEMPORARY OBSTETRIC PRACTICE

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Introduction. Preeclampsia is a multisystem disorder characterized by hypertension and proteinuria after 20 weeks of gestation (American College of Obstetricians and Gynecologists [ACOG], 2020). Despite advancements in prenatal care, preeclampsia remains a leading cause of preterm birth, cesarean delivery, and severe maternal complications such as eclampsia and HELLP syndrome (Roberts et al., 2019). The condition also poses significant risks to fetal well-being, including intrauterine growth restriction (IUGR), preterm birth, and perinatal mortality (Sibai et al., 2017). This study explores the impact of preeclampsia on labor outcomes and maternal-fetal health in contemporary obstetric practice.

Aim of the study. The study examines how preeclampsia affects labor and maternal-fetal health, highlighting the importance of timely intervention and evidence-based management.

Materials and methods. This research employs a systematic review of recent clinical studies and meta-analyses from peer-reviewed journals. Data on labor progression, mode of delivery, maternal complications, and fetal outcomes are analyzed to assess the implications of preeclampsia on obstetric care. Inclusion criteria focus on studies published within the last decade that examine preeclampsia-related labor complications in diverse populations.

Results and discussion.

1. Labor Progression and Mode of Delivery

- Preeclampsia is associated with prolonged labor, higher rates of labor induction, and increased likelihood of cesarean section due to fetal distress or maternal complications.
- Studies indicate that the rate of operative delivery is significantly higher among women with preeclampsia compared to normotensive pregnancies.

2. Maternal Complications

○ Women with preeclampsia are at increased risk of postpartum hemorrhage, placental abruption, and progression to severe preeclampsia or eclampsia. The disorder is also linked to long-term cardiovascular risks, including chronic hypertension and stroke.

3. Fetal Outcomes

○ Preeclampsia contributes to higher rates of fetal growth restriction, preterm birth, and neonatal intensive care unit (NICU) admissions. Increased perinatal mortality is observed in cases of severe preeclampsia, necessitating early intervention and specialized neonatal care.

The findings highlight the critical role of early diagnosis and multidisciplinary management in optimizing labor outcomes for women with preeclampsia. Advances in prenatal screening, antihypertensive therapy, and corticosteroid administration for fetal lung maturity have improved perinatal outcomes. However, challenges remain in predicting disease progression and reducing preeclampsia-related maternal and fetal morbidity.

Conclusion. Preeclampsia significantly affects labor outcomes, increasing the risk of cesarean delivery, maternal complications, and adverse neonatal outcomes. Improved surveillance, timely medical intervention, and evidence-based clinical protocols are essential to enhancing maternal and fetal health in preeclamptic pregnancies. Future research should focus on novel biomarkers for early detection and targeted therapies to reduce the burden of preeclampsia in obstetric care.

ЛИТЕРАТУРА

1. American College of Obstetricians and Gynecologists (ACOG). (2020). Hypertension in pregnancy.
2. Bellamy, L., Casas, J. P., Hingorani, A. D., & Williams, D. J. (2019). Pre-eclampsia and risk of cardiovascular disease later in life.
3. Brown, M. A., Magee, L. A., Kenny, L. C., et al. (2022). Hypertensive disorders of pregnancy: ISSHP classification, diagnosis & management recommendations.