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Гипертензивные состояния при беременности: клинические особенности и материнско перинатальные исходы.

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Homiladorlikdagi gipertenziv buzilishlar: klinik belgilari va ona perinatal natijalar.

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HYPERTENSIVE DISORDERS IN PREGNANCY: CLINICAL FEATURES AND MATERNAL PERINATAL OUTCOMES

Abstract

Hypertensive disorders of pregnancy continue to represent a major concern in obstetric practice due to their strong association with adverse maternal and neonatal outcomes. This study was conducted to evaluate the characteristics of pregnancy progression, methods of delivery, and perinatal results in women diagnosed with hypertension during gestation.

A total of 45 pregnant women receiving care at the maternity department of the Republican Clinical Hospital of Samarkand State Medical University were included in this retrospective analysis. The cohort comprised patients with gestational hypertension (53.3%), preeclampsia (35.6%), and chronic hypertension (11.1%). Clinical symptoms, obstetric interventions, and neonatal indicators were systematically reviewed and analyzed using descriptive statistical techniques.

The analysis revealed that hypertensive conditions were associated with an increased likelihood of cesarean delivery (57.8%), preterm birth (22.2%), and reduced neonatal birth weight (31%). The most severe outcomes were observed in

patients with preeclampsia, where operative delivery rates reached 75% and neonatal complications occurred more frequently. The average birth weight was 2700 ± 480 g, while perinatal mortality was recorded in 2.2% of cases.

Key predisposing factors identified in the study population included maternal age over 30 years (57.8%), first pregnancy (58%), excess body weight (46.7%), and a positive personal or family history of hypertension (40%). Statistical analysis confirmed a significant correlation between the severity of hypertensive disorders and unfavorable perinatal outcomes ($p < 0.05$). In summary, hypertensive disorders during pregnancy substantially increase the risk of complications for both mother and child. Early detection, careful monitoring, and individualized management strategies are essential to improve clinical outcomes and reduce perinatal risks.

Purpose

The aim of the present study was to examine the clinical features of pregnancy, identify the predominant modes of delivery, and assess perinatal outcomes in women diagnosed with hypertensive disorders during gestation. The analysis was conducted among patients who received inpatient care at the maternity department of the Republican Clinical Hospital of Samarkand State Medical University.

Research materials and methods

The present study was conducted using a retrospective descriptive design aimed at evaluating clinical and obstetric characteristics in pregnant women diagnosed with hypertensive disorders. The study population included 45 patients who underwent treatment during pregnancy in a specialized maternity department.

Within the study cohort, different forms of hypertensive pathology were identified. Gestational hypertension accounted for the largest proportion of cases (53.3%, $n = 24$), followed by preeclampsia (35.6%, $n = 16$), while chronic hypertension was observed less frequently (11.1%, $n = 5$). This distribution allowed for comparative assessment of outcomes depending on the type and severity of hypertension.

Eligibility criteria for inclusion in the study were clearly defined. Only women with singleton pregnancies at a gestational age of 20 weeks or more and a confirmed diagnosis of arterial hypertension were enrolled. Patients with multiple gestations, as well as those suffering from severe concomitant diseases particularly advanced cardiovascular or renal disorders were excluded in order to minimize confounding factors and ensure the reliability of the findings.

Data collection was carried out through a comprehensive review of available clinical documentation. This included patient medical records, detailed obstetric and gynecological histories, laboratory and instrumental examination results, delivery summaries, and neonatal health indicators. Special attention was given to

blood pressure levels, clinical symptoms, treatment approaches, and complications during pregnancy and childbirth.

For the analysis, standard descriptive statistical methods were employed. Quantitative variables were expressed as mean values with standard deviations, while qualitative data were presented as percentages. Comparative evaluation of outcomes was performed where appropriate. A p-value of less than 0.05 was considered indicative of statistical significance, reflecting meaningful associations between variables under investigation.

Results

The average age of the pregnant women was 30.8 ± 4.5 years. Primiparous women represented 58% of the total study population. Nearly half of the participants (46.7%) were found to have overweight or obesity, while a positive family history of hypertension was reported in 40% of cases.

Among the clinical manifestations, headache, edema, and proteinuria were the most frequently observed symptoms and were particularly common in women diagnosed with preeclampsia. The average blood pressure values in the study group reached approximately 160/100 mmHg. Regarding obstetric management, cesarean delivery was performed in 26 patients (57.8%), whereas 19 women (42.2%) delivered vaginally. The primary indications for operative delivery included severe forms of preeclampsia, signs of fetal hypoxia, and insufficient effectiveness of conservative treatment.

The mean birth weight of the newborns was 2700 ± 480 grams. Preterm delivery occurred in 22.2% of cases, while 31% of newborns had low birth weight, defined as less than 2500 grams. Perinatal mortality was recorded in one case, accounting for 2.2% of the total sample. Statistical analysis revealed a significant relationship between the severity of hypertensive disorders and the likelihood of unfavorable perinatal outcomes ($p < 0.05$).

Neonatal outcomes:

- 1) birth weight: 2700 ± 480 g
- 2) Preterm birth: 22.2%
- 3) Low birth weight: 31%
- 4) Perinatal mortality: 2.2%

Additional Research Findings

A deeper analysis showed that the severity of hypertensive disorders significantly influenced outcomes:

- Severe preeclampsia was associated with 75% cesarean delivery rate
- Preterm birth occurred in:
 - 12.5% (gestational hypertension)
 - 37.5% (preeclampsia)
 - 20% (chronic hypertension)
- Low birth weight was most common in preeclampsia (50%)

Table 1. Distribution of Outcomes by Type of Hypertension

Parameter	Gestational HTN (n=24)	Preeclampsia (n=16)	Chronic HTN (n=5)
Cesarean delivery (%)	45.8%	75.0%	60.0%
Preterm birth (%)	12.5%	37.5%	20.0%
Low birth weight (%)	20.8%	50.0%	40.0%
Neonatal complications (%)	16.7%	43.7%	20.0%

Conclusion

Hypertensive disorders during pregnancy continue to pose a serious challenge in contemporary obstetrics, as they are closely linked to unfavorable outcomes for both the mother and the newborn. The findings of this study confirm that the presence of hypertension significantly increases the likelihood of complications such as preterm delivery, fetal hypoxia, and the need for operative interventions, including cesarean section. It was established that certain maternal characteristics contribute substantially to the development and progression of hypertensive conditions. Among the most important risk factors identified were maternal age exceeding 30 years, primiparity, excessive body weight, and a personal or familial history of hypertension. These factors should be considered during antenatal risk assessment and monitoring. Furthermore, the results highlight that the severity of hypertensive disorders, particularly in cases of preeclampsia, directly correlates with poorer perinatal outcomes. This underlines the importance of differentiating between clinical forms of hypertension when planning patient management.

In this context, early diagnosis, continuous clinical surveillance, and the timely initiation of appropriate therapeutic measures are crucial for reducing the incidence of complications. An individualized approach to the management of pregnant women at risk, along with improved preventive strategies, may contribute to better maternal and neonatal health outcomes and a reduction in perinatal morbidity and mortality.

Keywords: hypertensive disorders of pregnancy, gestational hypertension, preeclampsia, maternal complications, perinatal outcomes, obstetric management

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