

COMPARATIVE ANALYSIS OF OBSTETRIC AND PERINATAL OUTCOMES IN ADOLESCENT PREGNANCIES VERSUS WOMEN OF REPRODUCTIVE AGE

Negmadjanov B.B. Mukhammedova F.F.

Department of Obstetrics and Gynecology No. 2, Samarkand State Medical University, Samarkand, Uzbekistan https://doi.org/10.5281/zenodo.17422343

Relevance. Adolescent pregnancy remains a significant medical and social challenge globally, associated with substantially higher risks of adverse maternal and perinatal outcomes compared to pregnancies in women of optimal reproductive age [1,3]. The increased vulnerability of adolescent mothers stems from a combination of biological factors, including physiological immaturity of the reproductive system, ongoing somatic growth that competes with the nutritional demands of pregnancy, and endocrine adaptations that may predispose to complications such as preeclampsia and preterm labor [3,4].

These biological risks are frequently compounded by socioeconomic determinants, including lower educational attainment, limited health literacy, inadequate nutritional status, and reduced access to quality prenatal care [1,5]. Understanding the specific spectrum and frequency of obstetric complications in this vulnerable group through comparative analysis with low-risk populations is essential for developing evidence-based preventive strategies and optimizing clinical management protocols to mitigate risks and improve health outcomes for both young mothers and their newborns[2].

Objective. To conduct a comparative assessment of the frequency and structure of obstetric and perinatal complications in pregnant adolescents versus women of optimal reproductive age.

Materials and Methods. A retrospective clinical and statistical study was conducted at Maternity Complex No. 3 (Samarkand). A total of 190 delivery records were analyzed, forming two groups: the main group consisted of 95 pregnant adolescents (aged 13–19), and the control group included 95 women aged 20–30. Statistical analysis was performed using the χ^2 test and Student's t-test.

Results and Discussion.

- 1. Social Profile: Adolescents were predominantly unemployed (90%), indicating a vulnerable social status.
 - 2. Structure of Obstetric Complications:
- \cdot Preeclampsia was diagnosed significantly more often in the main group (33.7% vs. 18.9%; p<0.05), with severe forms observed in 9.5% of adolescents.
- · Anemia was significantly more prevalent among adolescents (58.1% vs. 32.4%), with moderate and severe forms being more frequently registered (28.4%).
 - · Preterm birth occurred 2.2 times more often in the adolescent group (19.0% vs. 8.6%).
- · Weakness of labor was diagnosed in 29.5% of young parturients compared to 14.7% in the control group.
- \cdot The rate of cesarean section was 27.6% in the main group and 17.1% in the control group.
 - 3. Perinatal Outcomes:



- \cdot Fetal growth restriction (birth weight <2500 g) was identified in 24.8% of newborns from adolescents versus 10.5% in the control group. The average newborn weight was 2700±400 g and 3100±350 g, respectively.
- · Low Apgar scores (≤7 at the 1st minute) were recorded in 36.8% of children born to adolescents, compared to 18.9% in the comparison group.

Conclusions.

- 1. Pregnancy in adolescent patients is associated with a statistically significant increase in the risk of preeclampsia, anemia, preterm birth, labor abnormalities, and operative delivery.
- 2. Perinatal outcomes in adolescents are characterized by a higher frequency of fetal growth restriction and births complicated by asphyxia.
- 3. The obtained data justify the necessity of classifying pregnant adolescents as a high-risk category and developing specialized programs for individual monitoring and prevention at the primary healthcare level.

Adabiyotlar, References, Литературы:

- 1. Yunusova U.R., Karimova F.I. Reproductive health and perinatal outcomes in pregnant adolescents in Uzbekistan. Bulletin of Pediatrics. 2021;3(45):56-61.
- 2. Chen X., Wen S.W., Fleming N. Teenage pregnancy and adverse birth outcomes: a large population-based retrospective cohort study. Int J Epidemiol. 2020;49(4):1150-1160. DOI: 10.1093/ije/dyaa013.
- 3. Ganchimeg T., Ota E., Morisaki N. et al. Pregnancy and childbirth outcomes among adolescent mothers: a WHO multicountry study. BJOG. 2021;128(5):891-899. DOI: 10.1111/1471-0528.16568.
- 4. Aminova M.Sh., Khodjieva D.A. Risk factors for premature rupture of membranes in young primiparous women. Obstetrics and Gynecology of Uzbekistan. 2022;(2):34-38.
- 5. Komilov A.S. et al. Modern approaches to the prevention of preterm birth in women with a burdened obstetric history. Medical Science of Uzbekistan. 2023;(1): 112-118.