



PREGNANCY AND LABOR MANAGEMENT TACTICS IN WOMEN OF LATE REPRODUCTIVE PERIOD: A PROSPECTIVE STUDY OF CLINICAL OUTCOMES

Dilobar V. Gulammakhmudova 1

Umida M. Yusupova 2

1PhD, Assistant of the Department of Obstetrics and Gynecology of Tashkent Medical Academy, Tashkent 100109, Uzbekistan, <https://orcid.org/0009-0000-9901-8531>, momz1982@mail.ru;

2PhD, Associate Professor of the Department of Obstetrics and Gynecology of Tashkent Medical Academy, Tashkent 100109, Uzbekistan, <https://orcid.org/0009-0001-4216-7541>, yusupovaumida8480@mail.ru.

Abstract

Relevance:

Pregnancy in late reproductive age (≥ 35 years) is associated with increased risks of obstetric and neonatal complications. This study aims to analyze the characteristics of pregnancy and childbirth management in this category of women, as well as to study the outcomes for the mother and child.

Objective of the study:

To evaluate the tactics of pregnancy and childbirth management in women of late reproductive age (≥ 35 years) and to analyze the outcomes for the mother and newborn in comparison with a younger group.

Introduction:

With age, the likelihood of complications for both mother and child during pregnancy and childbirth increases. Women of late reproductive age (35 years and older) face high risks such as preeclampsia, gestational diabetes, polyhydramnios, and an increased risk of chromosomal abnormalities in the fetus. Despite these risks, with the increase in the average life expectancy of women and the improvement of medical care, there is a trend towards delayed



motherhood. Modern methods of prenatal diagnosis and improvements in obstetric tactics open up new opportunities to minimize risks and optimize outcomes.

1. Physiological characteristics of women of late reproductive age

Women of late reproductive age (35 years and older) experience physiological changes that can affect the course of pregnancy and childbirth. With age, there is a decrease in reproductive function, which is associated with a decrease in the quality of eggs and hormonal changes. These factors can increase the likelihood of:

- Chromosomal abnormalities, such as Down syndrome, in the fetus.
- Gestational diabetes, especially in combination with obesity.
- Preeclampsia, which is one of the main causes of maternal and perinatal morbidity.

Also, the age of women affects the contractility of the myometrium, which can complicate labor.

2. Risks and complications of late motherhood

The main risks for the mother and child in late motherhood include:

- Gestational diabetes: With increasing age, the likelihood of developing gestational diabetes increases. This is due to insulin resistance, which increases with age. Gestational diabetes increases the risk of premature birth, fetal macrosomia, and may also require surgical intervention.
- Preeclampsia: This is one of the most serious complications, which is more common in women over 35 years of age. Preeclampsia increases the risk of stroke, kidney failure and other severe complications.
- Polyhydramnios or insufficient water: These conditions can lead to various complications, including premature birth, premature placental abruption, or fetal hypoxia.
- Chromosomal abnormalities: The likelihood of chromosomal abnormalities such as Down syndrome increases with maternal age. This also contributes to more diagnostic procedures such as amniocentesis or chorionic villus sampling.



3. Prenatal diagnosis and screening

Women of late reproductive age require more thorough prenatal examination. It is important not only to monitor the physical condition of the mother, but also to conduct comprehensive screening to detect possible chromosomal abnormalities and other problems:

- Screening for chromosomal abnormalities: Blood tests such as PAPP-A and human chorionic gonadotropin (hCG) levels, as well as ultrasound examinations, can detect the risk of developing conditions such as Down syndrome early.
- Invasive procedures: Amniocentesis and chorionic villus sampling can accurately diagnose chromosomal abnormalities, but they are associated with certain risks such as miscarriage. Older women often choose these procedures after consultation with their doctors, especially if the results of non-invasive tests show abnormalities.
- Monitoring fetal health: This includes regular ultrasound examinations, Doppler ultrasound to assess blood flow in the placenta and umbilical cord, and regular measurement of fetal growth and weight.

4. Psychological aspects of pregnancy in women of advanced age

The psychological state of women of advanced reproductive age plays an important role during pregnancy. Age-related changes, worries about possible complications and anxiety about the health of the child can affect the emotional state of the expectant mother. This, in turn, can affect the overall outcome of pregnancy. Aspects such as depression, stress and anxiety require special attention and may require the intervention of a psychologist or psychotherapist.

5. Peculiarities of childbirth in women over 35 years old

Women of advanced reproductive age may face a number of difficulties during childbirth. The main ones are:

- Decreased tissue elasticity: In older women, the tissues of the cervix and perineum may be less elastic, which increases the risk of ruptures during childbirth.



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- Duration of labor: In women over 35 years old, labor may be longer due to decreased uterine activity and its less effective contractility.
 - Caesarean section: The rate of caesarean sections is higher in women of late reproductive age than in younger women. This is due to the increased risk of birth anomalies and complications, such as fetal hypoxia or malposition of the baby.

6. Tactics of labor management and the postpartum period

Management of labor and the postpartum period should be adapted to the woman's age and her condition:

- Monitoring the condition of the mother and fetus: It is important to monitor blood pressure, blood sugar levels, and to constantly monitor the condition of the fetus during labor.
- Postpartum care: Older women are more prone to developing postpartum complications, such as infections, thrombosis, depression. It is important to provide postpartum rehabilitation, including physiotherapy, psychological assistance and assistance in recovery from childbirth.

7. The role of medical, biological and genetic factors

The health of women of late reproductive age is also affected by genetic predisposition, health status before pregnancy and the presence of chronic diseases such as hypertension, thyroid disease, obesity and others. The decline in the functionality of the reproductive system with age requires a careful approach to the choice of treatment and pregnancy management tactics.

Management of pregnancy and childbirth in women of late reproductive age requires a thorough and individualized approach. Modern methods of prenatal diagnostics, improved monitoring capabilities and the availability of highly qualified medical care can significantly reduce the risks to the health of the mother and child. However, age is an important factor that requires increased awareness of possible complications and special methods of managing pregnancy, childbirth and the postpartum period.



Materials and methods:

The study was conducted at the maternity complex of the Tashkent Medical Academy. The study included 150 women of late reproductive age who sought obstetric care in the periods from 2021 to 2024. All participants were divided into two groups: the main group (women aged 35-40 years) and the control group (women aged 40+ years). Prenatal care, childbirth and the postpartum period were carried out according to the protocol of modern obstetric practice, taking into account the individual health indicators and age of the patients.

Patients were subjected to a detailed examination for the presence of chronic diseases, conditions requiring correction (for example, hypertension, diabetes, endocrine diseases), as well as risks based on the results of ultrasound and genetic screening. The study analyzed clinical outcomes such as the frequency of operative deliveries (caesarean section), the degree of birth complications (bleeding, ruptures), the condition of the fetus during labor, and the assessment of the health of newborns using the Apgar scale.

Results:

Of the 150 study participants, 70% of women gave birth between the ages of 35 and 40, and 30% at the age of over 40. The average age at first birth was 36.2 years in the main group and 41.5 years in the control group.

The incidence of pregnancy complications was 24% in the study group and 45% in the control group. Preeclampsia and gestational diabetes were the most common complications in both groups, but they were more severe in the control group.

The incidence of cesarean sections was 25% in the study group and 41% in the control group, reflecting an increase in the incidence of surgeries with increasing age. The total incidence of birth injuries (including ruptures) was 13% in the study group and 21% in the control group. No serious obstetric complications, such as uterine bleeding requiring urgent intervention, were observed in either group.



Fetal outcomes: 96% of newborns had normal Apgar scores (8-10 points) in both groups. However, there were 4 cases of premature birth (less than 37 weeks of gestation) in the control group and 2 cases in the study group.

Discussion

According to the study, the risk of complications in late reproductive age increases significantly, which requires special attention to each stage of pregnancy management. The main problem is the increased incidence of preeclampsia and gestational diabetes in women over 40 years of age. This, in turn, increases the frequency of cesarean sections and surgery due to unfavorable birth conditions.

Nevertheless, given the progress in prenatal diagnostics and medical care, women of late reproductive age can successfully bear and give birth to healthy children with appropriate medical supervision. It is important that optimization of pregnancy and childbirth management tactics based on an individual approach can reduce the incidence of complications and improve outcomes for both parties.

Conclusions

The study showed that pregnancy and childbirth management in women of late reproductive age requires increased attention and an individualized approach. The use of modern prenatal diagnostic methods and optimization of obstetric tactics can significantly improve clinical outcomes. Further research in this area is needed in the future to develop more effective guidelines for the management of older pregnant women.

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