Features of the First Pregnancy

Akhmedova A.T.1

1Samarkand State Medical University

*Corresponding author’s: Akhmedova A.T.

Abstract

In obstetrics, as in any professional environment, there are generally accepted concepts that are passed down from generation to generation, taken on unconditional faith as axioms that do not require confirmation or evidence. World consensus on the numerical expression for the age of "late primiparous" was first reached in 1958. Then he was identified at 35 years and older. This parameter, sometimes without division into first and second, continues to be used by many international organizations that analyze statistical indicators, but a number of researchers cite other values as a "risk factor": James Goodwin singled out 39 years, Robert Creasy and Alan Knox - 40 years.

Keywords: first pregnancy, risk, infantilism, complications, perinatal outcomes, reproductive system

1. Introduction

The reproductive function of a woman is one of the most important issues of modern society, since it is the ability of a woman to bear, give birth and raise healthy offspring that determines the demographic situation of any country on the world map. But the question "at what age to give birth for the first time?" every woman asks, because many fears are associated with age, both for women themselves and for doctors. As a risk factor for a high incidence of complications for mother and child, researchers consider various age gradations, the age of the woman in labor up to 18, over 30, over 35, over 40 years [1-3]. According to the literature, patients of different age groups are characterized by significant differences in the course and pregnancy, childbirth and perinatal outcomes [4].

In obstetrics, as in any professional environment, there are generally accepted concepts that are passed down from generation to generation, taken on unconditional faith as axioms that do not require confirmation or evidence. World consensus on the numerical expression for the age of "late primiparous" was first reached in 1958. Then he was identified at 35 years and older. This parameter, and sometimes without division into first and repeated ones, continues to be used by many international organizations that analyze statistical indicators, but a number of researchers cite other values as a “risk factor”: James Goodwin singled out 39 years, Robert Creasy and Alan Knox - 40 years and etc.

The Ministry of Health of Uzbekistan adheres to the international definition, using the definition “primiparous 35 years and older” in the regulatory documents.

For primiparas of young and adolescence, international statistics distinguish the Adolescent group birth rate per 1000 women aged 15-19 years - the frequency of childbirth in adolescents per 1000 women aged 15-19 years. Domestic statistical publications use the same age limits, but in some regulatory documents.

The category of age-related primiparas has been the object of increased attention of obstetricians for more than 50 years. I.F. Jordania referred to women aged 28 and older as “old primiparas”. At the World Congress of the International Federation of Obstetricians and Gynecologists in 1958 in Montreal, it was decided to classify women over the age of 35 as "old" primiparas. However, most modern authors include nulliparous older than 30 years in this group [3], while the terms “old” and “elderly” nulliparous in modern obstetrics are considered incorrect.

A number of major causes of first births after age 30 have been recognized:
- late onset of sexual activity;
- unwillingness to have children at a younger age, associated with the increasing role of women in the economic and socio-political life of modern society, which explains the later marriage, as well as unwillingness to have children during the period of study;
- an increase in the incidence of primary and secondary infertility due to genital infantilism, hormonal disorders and past inflammatory diseases, as well as a male factor, in connection with which pregnancy occurs when using assisted reproductive technologies (ART) or in a second marriage;
- miscarriage of previous pregnancies due to chronic inflammation of the genital organs, uterine fibroids, endocrine diseases and antiphospholipid syndrome [1, 6, 11, 13, 20].

Thus, in pregnant women over the age of 30, a significant number of obstetric and perinatal risk factors arise [13].

The number of complications during pregnancy and childbirth in "age" primiparas significantly exceeds their number in young ones. So, gestosis and placental insufficiency are 2 times more common. Significantly more often than in "young" primiparas, there are anomalies in labor activity. In "age" primiparas, multiple pregnancy is more common as a result of the use of ART [3, 7, 15, 16, 21].

Due to the complicated course of pregnancy and childbirth in women older than 30 years, the frequency of surgical delivery exceeds the average statistical indicators by 5-6 times [4, 12, 14, 17].

An increase in the number of caesarean sections in "aged" primiparas in some cases leads to complications in the postpartum period associated with somatic pathology of women and a complicated course of pregnancy [17]. With abdominal delivery, there is also a more frequent violation of the adaptation of the newborn [2].

At the same time, underestimation of risk factors leads to an unfavorable outcome of pregnancy [10, 12, 18, 20].

The tactics of delivery in pregnant women over 30 years old is still relevant and is achieved with a thorough analysis of all obstetric and perinatal risk factors [1, 5, 8, 9, 12].

Primiparas of older age groups (table average age of women at the birth of their first child, years)

Over the past 20 years in the European Region, the proportion of births at 35 years of age and later, both first and repeated, has almost doubled from 9.6% in 1997 to 20.7 in 2017, but the gap between countries in this indicator may be significant: in Azerbaijan it is only 5.6%, while in Spain it is close to 40%. In our country, the trend of aging of pregnant women is: the average age of those who gave birth in 2000 was ..., years, and in 2020 it is already

Risks associated with advanced age

An unambiguous list of complications of gestation, the frequency of which has been proven to correlate with a certain age, does not exist. A 2012 retrospective South Korean study examining pregnancies in four age groups (20-39, 30-34, 35-39, 40+ years) showed a wide range of complications in different samples and no direct relationship with a specific age. Expectant mothers aged 40+ had the highest risk of chromosomal abnormalities and a statistically significant increase in PE; in the group of 36-39 years, the highest frequency of preterm births was noted.

A further increase in the frequency of childbirth in women aged 40 years and older should be expected due to advances in the treatment of infertility, miscarriage and advances in prenatal diagnosis, as well as planning for childbirth at a later age, because the desire to have a child in some women appears only after achieving a certain material well-being [ Poznanskaya A.V., 1999; Dufour Ph. et al., 1997; Ziadeh SM, 2002].

Features of the course of the gestational process depend on many factors, among which age is of great importance.

There is still no consensus on whether a woman’s age over 40 is a risk factor. Most authors indicate that pregnancy in women over 40 years of age proceeds pathologically, and childbirth is accompanied by a number of severe complications for both the mother and the child [Zakhidova DV, 1990; Radutny V.N. et al., 1991; Kulavsky V.A. et al., 1999; Abserkhanova Z.U., 2000; Seoud M.A. et al., 2002].
Late reproductive age, according to many authors, is one of the risk factors for the development of placental insufficiency and preeclampsia [Archakova T.M. et al., 1999; Asymbekova G.U., 1996; Savelyeva G.M., Shalina R.I., 2000; Strizhakov A.N. et al., 2003; Pevtsova A.A., 2000; Nikiforovich I.I., 2002]. Early and late preeclampsia, threat of miscarriage, premature birth, recurrent pregnancy, premature rupture of amniotic fluid, anomalies of labor activity lead to an increase in the number of surgical interventions, an increase in perinatal morbidity and mortality [Kayupova L.S., 1999; Watanabe S. et al., 2000; Mounzil C. et al. 1998; Abu-Heija AT and al., 2000; Marai W. et al., 2002; Romero - Maldonado S._ et al., 2002; Miletic T._ et al., 2002; sheiner E._ et al., 2003; Kirchengast S._ et al., 2003].

In addition, in this age group, the frequency of anomalies and malformations of the fetus is the highest [Voskresenskaya CB et al., 2002; Savelyeva G.M., 2003; Vergani P. et al., 2002], the occurrence of which, according to some authors, is due not only to the age of the mother, but also to the age of the father over 40 years old [Auroux M., 1996; Rochebrochard E. et al., 2002].

However, there is evidence that the late age of the mother in the absence of complications in the antenatal period does not affect the health of the mother and the outcome of pregnancy [Khanaeva ZO, 1999; Blickstein J. et al., 1987; M. Brazil et al., 1987; Heimann F. et al., 1993] and can be minimized with skilled obstetric care [Bini R. et al., 2001; Dufour Ph. et al., 1997; Haen-jens K. et al., 1997].

In the domestic literature, there was no comprehensive study of groups of women over 40 depending on the parity of childbirth, there were no data on the frequency of childbirth in women over 40 years of age. The works of domestic and foreign authors are mainly devoted to primiparous or multiparous women of late reproductive age, information about the features of the course of pregnancy and childbirth in multiparous women over 40 years of age is scarce. Despite the enormous interest in the problem of pregnancy and childbirth in women over 40 years old, the problem is far from being understood and resolved.

The search for the most effective methods of managing pregnancy and childbirth in women over 40 years of age is of great practical importance in reducing the incidence of complications, perinatal and maternal morbidity and mortality, and therefore this study is devoted to studying the characteristics of the course of pregnancy and childbirth in women of this age group with the justification of tactics management of pregnancy and delivery.

A large number of works both in our country and abroad are devoted to the study of the characteristics of the course of pregnancy and childbirth at a young age [2–8]. Various studies [9, 10] indicate that adolescents are much more likely to experience pregnancy complications such as preeclampsia, anemia, miscarriage, gestational pyelonephritis, and in childbirth, premature rupture of amniotic fluid, anomalies of labor forces and intrauterine fetal hypoxia. However, a number of other authors [4, 11] indicate a more favorable course of pregnancy and childbirth in minors than in women of middle reproductive age.

countries over the past 20 years and show a clear trend towards further increases. Every year, 15 million adolescents give birth in the world, which is 2.0-4.5% of the total number of births [1].

The proportion of underage pregnant women and women in childbirth in relation to the older age groups is about 5%. As a rule, early pregnancy is unplanned in 50-60% of cases and unwanted in 30-40%, and therefore more often ends with artificial interruption. Every tenth abortion is performed in persons under 19 years of age. For 100 pregnancies in adolescents, the number of artificial abortions is 69.1%, childbirth - 16.4%, spontaneous miscarriages - 14.5%. At the same time, 40.0% of adolescents have repeated pregnancies, and 17.9% have repeated births [3].

An increased risk of pregnancy in adolescence is directly related to an increase in the sexual activity of adolescents, with low self-esteem, self-esteem. Despite the outward indifference of society to the fate of mother girls, they are under very strong moral pressure, the result of which is the desire to hide the pregnancy, to terminate it, by all means. The desire to hide their pregnancy is observed in 18-33% of adolescents [2, 3]. Moreover, the older the girl's age, the less often attempts to hide their position from others. 14.9% of adolescents attempt to terminate a pregnancy on their own or with the help of private individuals. Most of them use drugs recommended by girlfriends (74%) or sexual partners for interruption and take them randomly, in maximum doses [2, 3].

Pregnancies that occur at an early age often occur in a complicated psycho-emotional environment. Having not met support from their parents, breaking off contact with a sexual partner, condemned at school or in a college, girls experience a severe psychological crisis. The relationship that develops
between a minor pregnant woman and her parents, as well as between her and the father of the child, is extremely important, since the prognosis of the psychological well-being of women during pregnancy depends on them. So, according to B. Barnet, AK Duggan, MD Wilson et al (1995), conflict relations with the father of the child cause an increase in the depressive state in young pregnant women. Demographic studies strongly suggest that early marriages are the least stable. Thus, for girls who married before the age of 20, the risk of divorce during the first 10 years of family life is 1/3 higher than for those who married at 20-24 years old. One of the leading causes of the instability of young families is forced marriage, “stimulated” by premarital conception.

The successful course of pregnancy, the normal maturation of the fetus, the viability and health of the unborn child depend on the physical condition of the mother and her neuropsychic status. Emotional stress associated with extramarital pregnancy has a significant impact on the frequency and severity of pregnancy complications. So, a number of researchers in their works show that in juvenile pregnancy preeclampsia occurs in 12.0-76.55% of cases [4, 5, 6]. The unfavorable condition of a woman causes a higher level of pregnancy complications such as anemia - in 4.0-78.0% [1], premature detachment of the placenta - in 1.0-1.9% [6], the threat of miscarriage - in 4.7-49.9% [1, 7, 8], chronic fetoplacental insufficiency - in 11.0-76.0% [8]. Stress and emotional stress lead to immunological changes in the body of pregnant women, reducing its resistance to environmental influences. A relationship has been established between the frequency of pregnancy complications and "gynecological" age: the lower the "gynecological" age, the more often preterm birth, preeclampsia, pathology of the fetus.

The leading factors of preterm birth are the immaturity of the neuroendocrine system of the female body, manifested in reduced production of hormones (CH, estrogen, prolactin), incomplete formation of the uterine neuroreceptor apparatus, hypoxemia, and others.

Due to untimely and irregular seeking medical care, this category of women is 1.5 times more likely to have extragenital diseases during pregnancy. Most often - diseases of the urinary system, endocrine and metabolic disorders, diseases of the cardiovascular system. It should be noted that in 42.5% of cases, chronic foci of infection are detected during pregnancy, often in combination with acute diseases of the upper respiratory tract. The structure of gynecological diseases is dominated by inflammatory processes in the vagina and cervix, both before and during pregnancy [7].

Carrying a pregnancy at a young age is a serious test, since pregnancy and childbirth proceed in conditions of functional immaturity of the body, inadequacy of adaptive mechanisms, which creates a high risk of complications for both the mother and the fetus; some age-related features of the body of a teenage girl leave an imprint on the course of pregnancy and childbirth. The birth act is accompanied not only by the mobilization of the physical forces of the woman in labor, but also by great nervous tension, a sense of fear and pain, with the occurrence of which all the protective and compensatory mechanisms of the body are activated. Stressful situations and intense emotions negatively affect blood circulation and contractile activity of the uterus, causing weakness of labor forces and fetal hypoxia [9].

According to a number of domestic and foreign authors, childbirth in adolescence is characterized by a more frequent development of various complications: anomalies of labor activity (6.5-37.2%) [7, 9] untimely discharge of amniotic fluid (14.7-45.3%) [10], bleeding during childbirth and the early postpartum period, traumatism of the soft birth canal (4.0-25.5%), surgery (2.1-17%), purulent-infectious postpartum diseases (20.0-71.7%).

The reason for the frequent development of weakness of labor activity in adolescents is, apparently, a low hormonal background, the immaturity of the cervix due to the slow formation of the biological readiness of the body of minors for childbirth. For the same reason, discoordination of labor activity may develop [9, 10].

In young primiparas, the most severe labor stresses are protracted labor and a long anhydrous period. A large percentage of untimely discharge of amniotic fluid is associated with a high location of the presenting part and functional failure of the lower segment of the uterus. The frequent occurrence of this type of pathology is associated with a violation of the regime, especially in the last months of pregnancy (sexual intercourse, physical activity, etc.). The high percentage of infection of the cervical canal is also important. Every second minor during pregnancy has an infection of the urogenital tract (mycoplasmosis, chlamydia, candidiasis). Histological examination of the placenta revealed various inflammatory lesions (placentitis, deciduitis, chorioamnionitis, etc.) [7].
For all puerperas, the greatest stress is blood loss due to bleeding in the postpartum period. The cause of increased blood loss is hypotension of the uterus in the early postpartum period, retention of placental tissue caused by a violation of the mechanism of separation of the placenta and the process of excretion of the placenta. Bleeding in the afterbirth and early postpartum periods is proportional to the severity of anemia. In turn, anemia, which complicates the course of pregnancy in most minors, is a factor in reducing tolerance to blood loss during childbirth.

Pregnancy during adolescence increases the risk of stillbirth, prematurity, low birth weight, and complications during pregnancy. In young mothers, more often than in older women, there are children with chronic pathology of congenital origin, including as a result of severe asphyxia and birth trauma. Intrauterine development of the fetus in adolescents often occurs in conditions of fetoplacental insufficiency and is accompanied by intrauterine hypoxia [9].

The consequence of maternal disease, complicated course of pregnancy, development of fetoplacental insufficiency and fetal hypoxia often results in intrauterine growth retardation (IUGR), which is significantly more common in primiparous minors than in older women [8, 9]. Children with IUGR represent a high-risk group for neonatal morbidity and mortality, as well as disorders in subsequent development. Even an uncomplicated course of childbirth can become traumatic for newborns with IUGR, lead to the development of asphyxia, craniocerebral and spinal birth trauma, and be accompanied in the future by a high frequency of neurological disorders.

The physiological state of the first days of a child's life (transient jaundice, loss of initial body weight, etc.) of newborns in young mothers is more difficult and longer than in children from adult women. The acute phase of adaptation is very short in children exposed to intrauterine hypoxia. A high percentage of hypoxia experienced by newborns in young mothers is a high-risk factor for development posthypoxic encephalopathy. In addition, some newborns had symptoms of nicotine and drug intoxication.

Premature newborns of underage mothers often have signs of intrauterine malnutrition, intrauterine infection, manifestations of hypertensive and hemorrhagic syndrome [4]. Children of underage mothers have an increased risk of developing abnormalities in neuropsychic development. There is an age delay in the development of psychomotor skills, a delay in physical and mental development and behavioral disorders, the alignment of physical development is observed by the end of the third year of life. The overall morbidity rate in children of the first year of life born to mothers under the age of 18 is significantly higher than in children of adult mothers aged 20-25 years. In the structure of the incidence of children in the first year of life, the largest share is occupied by the class of diseases of the respiratory system, especially colds; in second place is the class of diseases “eating disorders and metabolic disorders”: (rickets, allergic dermatitis, malnutrition). At the same time, malnutrition in the first half of the year prevails over other diseases and metabolic disorders, which is associated with the inexperience and unpreparedness of a young mother in feeding a child; in third place are infectious and parasitic diseases, mainly intestinal infections with diarrhea and intoxication syndromes.

Thus, the development and morbidity of children of underage women are negatively affected by: the functional immaturity of young mothers, their low level of somatic and reproductive health, complicated pregnancy and childbirth, socio-economic instability and psychological instability. These factors contribute to violations of intrauterine and postnatal development of children, their increased morbidity and mortality.

References:
2. Bainey R. _ With et al., 2001; Dufour Ph. et al., 1997; Haen-jens K. et al., 1997
4. Resurrection CB with et al., 2002; Savelyeva G. M., 2003; Vergani P. et al., 2002

Available online at: https://jazindia.com
11. Kayupova G.F., Kulavsky V.A. The course and outcome of juvenile pregnancy with preeclampsia. Materials of the 4th All-Russian. Conf., in Pediatric and Adolescent Gynecology; 2000; M.
13. Poznan A. V., 1999; Dufour Ph. et al., 1997; Ziadeh SM, 2002
17. Khanaeva Z. O., 1999; Blickstein J. et al., 1987; M. Brasil et al., 1987; Heimann F. et al., 1993
18. Auroux M., 1996; Rochebrochard E. et al., 2002