



INFLUENCE OF ENDOMETRIOSIS IN COURSE OF PREGNANCY AND CHILDBIRTH

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✓ *Resume*

Endometriosis and adenomyosis not only cause symptoms such as dysmenorrhea, chronic pelvic pain, and infertility, but they have also recently become a cause of a number of obstetric complications. In this regard, we conducted a study of the course of pregnancy and childbirth in 65 pregnant women in 2021-2022 y., of which the main group consisted of 43 pregnant women with grade 1-2 adenomyosis and the comparison group - 22 pregnant women without adenomyosis. We have found that the chances and risks of developing obstetric and perinatal complications are much higher in pregnant women with adenomyosis.

Keywords: complications of pregnancy and delivery, adenomyosis

ВЛИЯНИЕ ЭНДОМЕТРИОЗА В ТЕЧЕНИЯ БЕРЕМЕННОСТИ И РОДОВ

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Резюме

Эндометриоз и аденомиоз вызывают не только такие симптомы, как дисменорея, хроническая тазовая боль и бесплодие, но в последнее время они также стали причиной ряда акушерских осложнений. В связи с этим, мы провели изучение течения беременности и родов у 65 беременных в 2021-2022 гг., из них основную группу составили 43 беременных на фоне аденомиоза 1-2 степени и группу сравнения - 22 беременных без аденомиоза. Нами выявлено, что шансы и риски развития акушерских и перинатальных осложнений намного возрастают у беременных с аденомиозом.

Ключевые слова: осложнения беременности и родов, аденомиоз

HOMILADORLIK VA TUG'RUQ KECHISHIGA ENDOMETRIOZNING TA'SIRI

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Endometriozi va adenomioz nafaqat dismenoreya, kichik chanoqdagi surunkali og'riqlar, bepushlikka ta'sir qiladi, balki so'nggi vaqtlarda akusherlik asoratlari ham sabab bo'layotgani kuzatilmoqda. Shuni hisobga olgan holda, biz 2021-2022-yillar davomida 65 nafar homilador ayollarda homiladorlik va tug'ruq kechishini o'rgandik, ulardan asosiy guruhni 1-2 darajali adenomioz bilan kasallangan 43 nafar homilador ayollar va taqqoslash guruhini 22 nafar adenomiozsiz homilador ayollar tashkil etdi. Adenomiozli homilador ayollarda akusherlik va perinatal asoratlarni rivojlanish ehtimoli va xavfi ancha yuqori ekanligini aniqladik.

Kalit so'zlar: homiladorlik va tug'ruq asoratlari, adenomioz

Relevance

Over the past few years, a new direction in the field of reproductive medicine has been the study of the relationship between endometriosis (adenomyosis) and non-positive pregnancy outcomes. According to expert reports, the incidence of endometriosis in active reproductive age in our country,

Kazakhstan and Ukraine is 15-17%, in Belarus it is slightly less - 10%. A similar incidence is observed in other developed countries.

An analysis of modern literature has shown that in countries with an increased incidence of endometriosis with a frequency of 7–12%, one of which occurs at 34 weeks of pregnancy. In the last 7-8 years in Uzbekistan, there has been an increase in the incidence of miscarriage of unclear etiology with characteristic manifestations of manifestations and special perinatal morbidity and mortality. So, the incidence of childbirth for the period 2018-2020. in the Republic of Uzbekistan revealed 18% (according to the statistics department of the Ministry of Health of the Republic of Uzbekistan).

Recent studies have shown that endometriosis and adenomyosis not only affect infertility, but are also associated with a several obstetric complications after successful conception. In recent years, noted a clear trend towards an increase in the number of women becoming pregnant after anti-adenomyosis therapy [1, 2, 5]. It is obvious that, along with the success, the problems associated with the high incidence of obstetric and perinatal pathology in women against the background of adenomyosis have also increased [3, 4]. Until now, there is practically no generalized clinical material on the features of the course of pregnancy and childbirth in adenomyosis. Recent literature data indicate that a high percentage of perinatal losses and morbidity of a newborn in women against the background of adenomyosis is due to such complications as miscarriage, placental insufficiency (PI), preeclampsia [2, 3, 5].

According to recent data, one of the serious complications of the early stages of pregnancy in adenomyosis is bleeding due to chorion detachment and the formation of retrochorial hematoma, which is about 45% [7, 10], up to 75% - the threat of abortion [6, 8, 9]. Despite the improvement of modern methods of diagnosis, prevention and treatment, many complications in pregnant who suffer with adenomyosis remain unresolved, poorly understood and require further research in this area.

There is very conflicting evidence that maternal endometriosis may increase the risk of gestational complications, such as miscarriage at different times, non-developing pregnancy, preterm birth. There are cases of an increased risk of developing preeclampsia and FGR [7,10].

A case-control study conducted in Russia to study the development of gestational complications indicates a relationship between maternal endometriosis and the birth of children with low body weight and with hypoxia [6, 7]. At the same time, it was found that the use of low molecular weight heparins reduced the risk of preterm birth against the background of adenomyosis and complications associated with them. This may indicate that the latter were associated with hemostasiological disorders in the mother-placenta-fetus system (placental dysfunction).

There is lack of information in the literature about the course of gestation and complications from the fetus, depending on the location, volume of endometriotic lesions, gestational age and severity of the course of the disease. Of great interest is the state of the placental system, pathological and morphological examination of the placenta in women with adenomyosis.

However, the analysis of the literature showed that there is not enough information about the state of the mother-placenta-fetus system in case of endometriosis in the mother, depending on the gestational age, type and location, relapses. When managing pregnancy in women with endometriosis, preventive prophylaxis is used, but the management algorithm needs to be improved to reduce obstetric and perinatal complications of gestation.

In connection with the foregoing, determining the main features of the course of pregnancy and childbirth in women with endometriosis, as well as developing an algorithm for their management, is a step without it cannot be available significant progress in solving modern obstetric problems. Markers that warn of the subsequent development of certain complications should be clinically available in order to identify women who require dynamic monitoring throughout pregnancy and preventive therapy before the onset of clinical manifestation of gestational complications.

The purpose of the study: to assess the outcomes of pregnancy and childbirth in patients with adenomyosis.

Materials of the study

The study was conducted on the Republican Perinatal Center and obstetric complex No. 9 in Tashkent. The study of the course of pregnancy and childbirth was carried out in 65 pregnant women in 2021-2022, of which the main group consisted of 43 pregnant women with grade 1-2 adenomyosis and the comparison group - 22 pregnant women without adenomyosis. The age of the examined women in the main group ranged

from 27 to 38 years (32.5 ± 5.5), in the comparison group - from 21 to 32 years (26.5 ± 4.5). The exclusion criteria were multiple pregnancies, women whose pregnancy occurred after IVF.

Result and discussion

General clinical, functional, statistical research methods. The obstetric-gynecological and somatic anamnesis and the data of the clinical-laboratory examination were carefully studied.

When studying the obstetric and gynecological history, we took into account the features of menstrual function, the course and outcomes of previous pregnancies (history of medical abortions, spontaneous miscarriages, premature and complicated births, surgical interventions), as well as complications during this pregnancy (SORP, placental insufficiency, etc.).

All patients underwent standard studies: determination of the blood group and Rh factor, clinical and biochemical blood tests, hemostasiogram, general urinalysis, smear analysis and bacteriological examination vaginal discharge.

The data obtained during the study were subjected to statistical processing using the Microsoft Office Excel-2003 software package.

Methods of variational parametric and nonparametric statistics were used with the calculation of the arithmetic mean of the studied indicator (M), standard deviation (σ), standard error of the mean (m), relative values (frequency, %), the statistical significance of the measurements obtained when comparing the average quantitative values was determined by Student's test (t) with the calculation of the error probability (P) when checking the normality of the distribution (according to the kurtosis criterion) and the equality of general variances (F - Fisher's test). The significance of differences between the compared indicators was determined by Student's t -test. Differences were considered significant at $p < 0.05$.

The study of the anamnesis of pregnant women showed the presence of a burdened obstetric and gynecological history in all patients (100%) with adenomyosis, while in the comparison group only 4 (18,2%) patients revealed a burdened obstetric and gynecological history.

In the group with adenomyosis, the course of this pregnancy was more often complicated by the threat of miscarriage (100%), placental dysfunction (53.5%), preeclampsia (20.9%), fetal growth retardation syndrome (FGR) (16.3%). Whereas in the comparison group, the threat of miscarriage and placental dysfunction (mainly violations of MPPC IA and B degrees) occurred in 27,3% and 22,7% of patients, which is 3,7 and 2.4 times less than in women with adenomyosis.

The same trend was observed in relation to FGR, which was 1,8 times less common (9%) than in the group of women with adenomyosis. Apparently, in adenomyosis, the processes of implantation and placentation, which are the key to the success of the physiological course of pregnancy, are primarily affected.

An interesting fact was the rates of preeclampsia (9%) in the group of women without adenomyosis, which were in an insignificantly significant range from the values of the group of women with adenomyosis.

In the group of women with adenomyosis, pregnancy ended in premature birth in 14 (32.5%) women. In the comparison group, preterm births occurred almost 2,4 times less and amounted to 13.6%.

23.3% of women with adenomyosis were operatively delivered. The indications for caesarean section were: 2 scars on the uterus (2), inconclusive condition of the fetus (2), severe preeclampsia (2), transverse position of the fetus (1), desire of a woman after prolonged infertility (3). In the comparison group, only 2 (9%) patients underwent operative delivery, the indications for which were pelvic-head disproportion (1) and the unconvincing state of the fetus during childbirth (1).

An analysis of the histories of newborn mothers with urgent delivery showed that pregnant women with adenomyosis had children weighing 2894 ± 513 g and an Apgar score of 6.87 ± 0.9 points, while in women without adenomyosis (comparison group), the weight of children was 3287 ± 425 g and an Apgar score of 7.76 ± 0.7 points.

Comparative characteristics of the health status of newborns to be very difficult, since delivery was carried out at different gestational times. The course of pregnancy, with adenomyosis, largely led to preterm birth with the birth of children with low and very low body weight.

Table 1.

Features of the course of pregnancy in women against the background of adenomyosis

Complications	Main group (n=43)		Comparison group (n=22)	
	Abs	%	abs	%
Threat of abortion	43	100*	6	27,3
Placental dysfunction	23	53,5*	5	22,7
Preeclampsia	9	20,9	2	9
fetal growth restriction syndrome	7	16,3*	2	9
Premature delivery	14	32,5*	3	13,6
C-section	10	23,3*	2	9

Note: * $p < 0.05$ - significance of differences in the values of the group with adenomyosis in relation to the values of the comparison group.

To identify a causal relationship between the presence of adenomyosis and the development of obstetric and perinatal complications, we calculated the chance (OR) and risk (RR) of their occurrence in these patients.

The analysis showed that in pregnant women against the background of adenomyosis, a complicated course of gestation was noted, which, to a certain extent, was the cause of obstetric and perinatal complications. The chance and risk of developing PD in pregnant women with adenomyosis is 2.9 and 2.5 times greater than in the comparison group.

It should be noted that apparently as a result of PD, a certain number of pregnant women with adenomyosis had polyhydramnios or oligohydramnios in the comparison group. And the risk of development (RR) of oligohydramnios and polyhydramnios in pregnant women with adenomyosis is 1.8 and 3 times higher than in the comparison group.

One of the complications, rarely amenable to correction, is FGR. The chance of developing FGR in pregnant women against the background of adenomyosis is 1.6 times greater. And the risk of developing FGR is 2.3 times higher than in the comparison group. Indicators (OR) and (RR) of preterm birth in women with adenomyosis are 8.3 and 4.6 times higher than in the group of pregnant women without this pathology.

Thus, we found that the chances and risks of developing obstetric and perinatal complications are much higher in pregnant women with adenomyosis.

Conclusions:

1. The course of pregnancy against the background of grade 1 and 2 adenomyosis is accompanied by the threat of abortion in 100% of cases, which dictates the need for a more differentiated approach to pregnancy management and high-quality preconception preparation.

2. The most common complications in pregnant women with adenomyosis were placental dysfunction (53.5%), premature birth (32.5%), fetal growth retardation syndrome (16.3%).

3. During pregnancy against the background of adenomyosis, the chances of developing and the relative risks of developing placental dysfunction were OR=2.9; RR=2.5, fetal growth retardation syndrome – OR=1.6; RR=2.3, preterm birth – OR= 8.3; RR=4.6.

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