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## ASSESSMENT OF QUALITY OF LIFE IN WOMEN WITH UNDIFFERENTIATED CONNECTIVE TISSUE DYSPLASIA

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To study the quality of women's life, based on developed clinical and laboratory criteria, for the period from 2019 to 2022, a prospective study of the course of pregnancy and its outcomes was conducted in 68 pregnant women aged 18 to 39 years (average age 27.98±5.3) with undifferentiated connective tissue dysplasia, which formed a high-risk group for the development of pathology of the fetoplacental system. The conducted studies found that the "physical component" and the "psychological component" of the quality of life in pregnant women are reduced equally, limiting household and social functioning. Possible ways to improve the quality of life of pregnant women were identified, affecting the reduced controllable characteristics of the state of health by means and methods of health improving physical culture.

**Key words:** quality of life, postpartum period, placental insufficiency, pregnancy

**Ш.Г. Кадімова**

## ОЦІНКА ЯКОСТІ ЖИТТЯ У ЖІНОК ІЗ НЕДИФЕРЕНЦІЙОВАНОЮ ДИСПЛАЗІЄЮ СПОЛУЧНОЇ ТКАНИНИ

Для вивчення якості життя жінок, на підставі розроблених клініко-лабораторних критеріїв, за період з 2019 по 2022 рр., нами було проведено проспективне дослідження перебігу вагітності та її наслідків у 68 вагітних віком від 18 до 39 років (середній вік 27,98±5,3) із недиференційованою дисплазією сполучної тканини, які склали групи високого ризику щодо розвитку патології фетоплацентарної системи. Внаслідок проведених дослідженб нами було встановлено, що «фізичний компонент» та «психологічний компонент» якості життя у вагітних жінок знижені рівною мірою, обмежуючи побутове та соціальне функціонування. Було визначено можливі способи підвищення рівня якості життя вагітних, що впливають на знижені керовані характеристики стану здоров'я засобами та методами оздоровчої фізичної культури.

**Ключові слова:** якість життя, післяпологовий період, плацентарна недостатність, вагітність

Pregnancy is a crisis period both in the life of a woman and the family as a whole [1]. During this period, it is necessary to provide the woman with a high quality of life. The success of a woman's adaptation to her pregnancy is influenced by her level of readiness for motherhood. According to some studies, modern young women are in a state of chronic stress [2, 3].

Studies examining the combination of UCTD and pregnancy are extremely limited and cover only some aspects of this problem. Within the problem of "UCTD and pregnancy" itself there are still many uncoordinated issues: there is no consensus on the assessment of the clinical manifestations of UCTD in pregnant women of this group, and modern capabilities of laboratory diagnostic research methods are not always used sufficiently. There are no uniform recommendations on the timing and method of delivery for pregnant women with various manifestations of UCTD [4, 7]. All of the above factors provided the rationale for conducting this study.

**The purpose** of the study was to assess the quality of life in women with incidence of undifferentiated connective tissue dysplasia in the postpartum period.

**Material and methods.** In our work, to achieve the purpose of the study, based on developed clinical and laboratory criteria, for the period from 2019 to 2022, a prospective study of the course of pregnancy and its outcomes was conducted in 68 pregnant women aged 18 to 39 years (average age 27.98±5.3) with UCTD, which constituted a high-risk group for the development of pathology of the fetoplacental system. Pregnant women were observed at the Department of Obstetrics and Gynecology II of the AMU. All women underwent prospective assessment of the course of pregnancy; all patients were consulted by a therapist, surgeon, and ophthalmologist to identify visceral pathology related to the clinical manifestations of UCTD. The control group consisted of 24 pregnant women without the presence of UCTD at the time of the study. The groups were formed according to the principle of continuous selection using random and typological sampling – using the method of balanced groups identical in age, nature of the course of pregnancies, parity of births, social, educational and marital status.

Inclusion criteria: age from 18 to 39 years (average age 27.98±5.3 years), mild undifferentiated connective tissue dysplasia (the presence of 2 main signs of dysplasia according to the criteria of T. Milkovska-Dimitrova and A. Karkashev (1985) or from 4 to 9 points on the T.Yu. Smolnova scale (2003) [1], absence of severe pregnancy complications (severe preeclampsia), decompensated somatic pathology, informed consent of patients to participate in the study.

Exclusion criteria: differentiated connective tissue dysplasia, endocrine diseases, chronic somatic pathology in the stage of decompensation, infectious diseases, infertility, multiple pregnancy, age under 18 and over 39 years, patient refusal from the study.

All women were assessed for quality of life (QoL) using an anonymous survey using the nonspecific questionnaire SF36 "Health Status Survey" [9]. All 36 items of the questionnaire are grouped into eight scales: physical functioning, role functioning, bodily pain, general health, vitality, social functioning, emotional state and mental health. Scores on each scale range between 0 and 100, with 100 representing complete health, and all scales form two indicators: mental and physical well-being. The results were presented in the form of scores on 8 scales, designed in such a way that a higher score indicates a higher level of quality of life. The presence of 5 or more stigmas of dysembryogenesis in a pregnant woman was considered clinically significant.

**Results of the study and their discussion.** The examined patients were aged from 18 to 39 years. The average age of pregnant women in the main group, 27.98±5.3 years, did not differ from that in the control group 27.91±6.8 years ($p>0.05$). The majority of the examined patients – 63 (92.4±3.1%) and 22 (91.7±3.1%) were of active reproductive age under 35 years. At the same time, almost every second pregnant woman was over 30 years of age (according to the groups: 47.2±6.0% and 37.5±9.9%), which, according to the results of a number of researchers, is a risk factor for the development of placental insufficiency.

Table 1

**Phenotypic and visceral manifestations of UCTD in the examined women**

| Stigmas of embryogenesis | Main group (n=68) | | Control group (n=24) | |
|---|---|---|---|---|
| | Abs. | % | Abs. | % |
| Low forehead | 6 | 8.8±3.5 | - | - |
| Incised earlobes | 22 | 32.4±5.7 | - | - |
| Scoliosis | 17 | 25.0±5.3 | 1 | 4.16±2.0 |
| Mitral valve prolapse | 27 | 39.7±5.9 | 1 | 4.16±2.0 |
| Muscle hypotrophy | 13 | 19.1±4.8 | - | - |
| Habitual dislocations | 9 | 12.4±4.1 | - | - |
| Joint hypermobility | 10 | 14.7±4.3 | - | - |
| Refractive error | 18 | 26.5±5.4 | 2 | 8.3±5.5 |

Analysis of the state of reproductive health showed that the average age at menarche in pregnant women in the groups did not differ from 13.8±1.2 and 13.6±1.1 years and did not differ from the population.

In 58 (85.3±4.3%) – the main and in 20 (83.3±7.7%) patients in the control group, the menstrual cycle from the beginning of menarche was regular (p>0.05), in 19 (27, 9±5.4%) and in 7 (29.2±9.3%), respectively, it was established within 1.8±0.6 years, the duration did not differ before the current pregnancy (28.5±2.4 days, 27.8±2.2 days), as well as the duration of menstrual bleeding (5.3±1.2 and 5.0±1.2 days) (p>0.05). Menstrual bleeding in 49 (72.1±5.4%) women of the main and 19 (79.2±8.2%) control groups was moderate. Phenotypic and visceral manifestations of UCTD in the examined women are presented in Table 1.

The course of pregnancy in the first trimester in women of the main group was more often complicated by threatening miscarriage, requiring hospital treatment (29 women (42.64±6.0%) in the main group and 2 women (8.3±5.5%) in the control group, p =0.024). In the second trimester of pregnancy, women in the main group were more likely to have a threatened miscarriage (28 women (41.2±5.9%) in the main group and 2 women (8.3±5.5%) in the control group, p=0.033); exacerbation of herpes infection (16.7±6.3% and 4.16±2.0%, respectively, p = 0.022). In the third trimester, women in the main group were more likely to have threatened labor (18 women (26.5±5.4% in the main group and 1 woman (4.16±2.0%) in the control group, p =0.05); oligohydramnios (11 women (16.2±4.4%) and 1 woman (4.16±2.0%), respectively, p = 0.032); intrauterine growth retardation syndrome (47 women (69.1±5.6 % and 2 women (8.3±5.5%), respectively, p =0.046). Of the 68 women suffering from UCTD, pregnancy ended in timely birth in 61 women (89.7±3.6%), in the control group, birth occurred in all 24 patients (p<0.01). The duration of labor for women in the main group averaged 664.8±123.3 minutes, for healthy women – 376.2±86.7 minutes (p<0.01). Postpartum complications in women are presented in Table 2.

Table 2

**Postpartum complications in women**

| State | Main group (n=68) | | Control group (n=24) | | χ2 | P |
|---|---|---|---|---|---|---|
| Endometritis | 25 | 36.6±5,6 | 1 | 4.16±2.0 | 10.4 | <0.001 |
| Postoperative hematomas | 10 | 14.7±4.3 | - | - | | |
| Hypotonic bleeding | 13 | 19.1±4.8 | 1 | 4.16±2.0 | 1.8 | <0.001 |
| Increased blood loss in the postpartum period | 17 | 25.0±5,3 | - | - | | |
| Mild anemia | 19 | 27.9±5.4 | 2 | 8.3±5.5 | 41.0 | <0.001 |
| Moderate anemia | 18 | 26.5±5.4 | 1 | 4.16±2.0 | 19.6 | <0.001 |
| Severe anemia | 6 | 8.8±3.5 | - | - | | |

Delivery by cesarean section was performed in 10 (14.7±4.3%) women suffering from UCTD and in 1 (4.16±2.0%) healthy women (p=0.004).

At the same time, the physical condition of 44 pregnant women of the main group (64.7±5.8%) significantly limited the implementation of daily role activities (RP) (performing daily duties, work), but the performance of physical activities (PF) (self-care, walking, climbing stairs, carrying heavy objects, etc.) did not significantly affect 58 (85.3±4.3%) women in the main group. It is worth noting that in the control group of women, the indicator of role functioning (RP) had greater variability. Thus, 12 women (50.0%) rated their functional state at a high level – 100 points, 10 women (41.7±10.1%) noted that their daily activities were slightly limited by their physical condition. A high level of pain intensity (BP) was noted in 27 pregnant women of the main group (39.7±5.9%), while 17 women (25.0±5.3%) indicated that pain significantly limited their activity. 22 women in the control group (91.7±13.8%) noted a favorable background (medium and high) for this indicator. For the majority of women in the main group, the overall assessment of quality of life corresponded to the average level, while in the control group it corresponded to a high level.

Studying the influence of a woman's estrogenital pathology on the course of pregnancy and childbirth is one of the most important areas of modern obstetrics. Somatic diseases in many cases not only predetermine the condition of a woman during the gestational period, but also, according to a number of authors, they are associated with 12 – 20 % of maternal mortality and up to 40 % of perinatal morbidity [1, 2, 3, 5]. Moreover, in recent years, much attention has been paid to estrogenital pathology caused by undifferentiated connective tissue dysplasia. The incidence of undifferentiated connective tissue dysplasia (UCTD) ranges from 20 to 30 % of women giving birth [8, 9]. The generalized nature of connective tissue damage involving the reproductive system in the pathological process cannot but affect the course of pregnancy and the outcome of childbirth [10]. For an obstetrician-gynecologist, a woman with undifferentiated forms of connective tissue dysplasia (UCDCT) is a frequent patient, since the disease is manifested by a high frequency of algomenorrhea, anomalies of the internal and external genitalia, varicose veins of the small pelvis, genital infantilism, genital prolapse, anatomically narrow pelvis, symphysiopathy [4, 6, 7]. It is known that women with UCDCT are more likely to experience complicated pregnancy and unfavorable birth outcomes. However, although these parameters allow us to assess the condition of the problem as a whole, they do not make it possible to judge the condition of a specific patient. To this end, the International Society for the

Study of Pain (IASP) recommends the use of an integrative criterion such as quality of life [6]. In the last two decades, researchers have increasingly turned to the concept of "quality of life" (QoL), which reflects the degree of comfort a person feels both within himself and within society. One of the important components of QoL is the individual's health status, the ability to adequately respond and adapt the body's systems to the effects of stress factors [9]. The most common cause of painful conditions is a disruption of the relationship between the mind and body, starting with autonomic dysfunction [9].

Despite the fact that the pregnant women of the main group had constitutional features inherent in UCTD, and the number of stigmas of dysembryogenesis in each woman exceeded five, a qualitative analysis of the stigmas revealed a predominance of valvular, thoracodiaphragmatic, articular, muscular, cosmetic syndromes and pathology of the organs of vision. In the structure of physical well-being in women with UCTD in the late postpartum period, a decrease in all its components predominated, which indicates that their physical activity was limited by their health status; significant restrictions on their daily activities and activities; low self-esteem of health. Thus, the results of the study emphasize the need for rehabilitation measures in women with UCTD in the late postpartum period, even in the absence of active complaints.

The quality of life depends on the number and severity of phenotypic disorders, that is, the more signs of connective tissue dysplasia (joint hypermobility, scoliosis, nephroptosis, increased bleeding, myopia, severe dilation of the veins of the lower extremities, etc.), the lower this indicator. As pregnancy progressed, there was a deterioration in well-being and a decrease in the quality of life in patients with UCTD. Optimizing the quality of life, creating positive emotions in order to provide an optimal psychophysical environment for the emotional and personal development of the individual are important tasks for increasing the effectiveness of existing prenatal care for pregnant women. Determining indicators of quality of life in women is an integral part of monitoring during pregnancy, which allows adequate assessment and timely adjustment of physical, social and psycho-emotional functions in the interests of the mother and fetus.

When making an initial visit to the antenatal clinic for registration, a joint examination by a therapist and a gynecologist is required to assess the risk of adverse outcomes and pathology of pregnancy, including determining the phenotypic stigmas of connective tissue dysplasia and collecting an obstetric history (past miscarriages, weight gain of 12.6 kg or less by the end of the third trimester in previous pregnancies, body mass index at the initial examination is 22.79 kg/m² or less, more than 5 phenotypic signs of connective tissue dysplasia). A targeted examination of patients is necessary to identify anxiety and depressive disorders with a view to their timely correction during pregnancy. The data obtained allow us to recommend its implementation in practical healthcare.

## Conclusions

1. Pregnant women with signs of undifferentiated forms of connective tissue dysplasia belong to high-risk groups for obstetric and perinatal pathology, and therefore they require close monitoring during pregnancy, childbirth and the postpartum period.

2. It is necessary to examine newborns who have a high probability of inheriting this disease.

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