

EFFICIENCY OF MICRONIZED PROGESTERONE IN PREGNANT WOMEN AT RISK OF SPONTANEOUS ABORTION

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Annotation: Below we would like to clarify the issues that arise in practice in patients who are prescribed micronized progesterone in obstetrics and gynecology. Micronized progesterone has been widely used over the past 40 years in different countries of the world as the main factor of preserving the fetus in early and late pregnancy. The risk of miscarriage is one of urgent problems that are growing day by day. Planning the first pregnancy after 30-35 years, an increase in number of pregnancies after assisted reproductive technologies, the negative impact of environmental factors, stress - all these factors increase the complication of pregnancy and, first of all, the number of spontaneous abortions.

Key words: Spontaneous miscarriage, micronized progesterone, pregnancy, gestagen, dydrogesterone

Micronized progesterone and dydrogesterone have been widely used in various countries of the world for the past 40 years to preserve the fetus. In the history of all progestogens, micronized progesterone is the drug studied based on the largest clinical trials [1-3], and it is included in the list of drugs necessary for life [4]. The clinical effectiveness and positive aspects of micronized progesterone have been recorded as a result of many years of clinical practice. In recent years, not only histochemical, but also contraception, preparation for pregnancy, maintenance of pregnancy, prolongation of pregnancy, and stimulation of the immune system have gained a lot of information about progesterone. Cholesterol, an intermediate product of low-density lipoproteins, is formed by successive enzymatic transformations

through pregnanediol, which provides the biosynthesis of androstenedione, testosterone, aldosterone, and cortisol in the cortex of the adrenal glands. Thus, androstenedione, testosterone are mainly metabolites of progesterone. Progesterone metabolism occurs in the placenta [6, 7], chorion and myometrium [8,9]. The main metabolite of progesterone in the placenta was found to be 20α -dihydroprogesterone. The second most common metabolite is 5α -dihydroprogesterone [10]. Progesterone belongs to a group of hormones called neurosteroids, which affect brain structures (hypothalamus, pituitary gland), as well as biosynthesis, memory, emotions, sexual behavior and body temperature in various areas of the brain. Progesterone prevents osteoporosis, reduces the negative effects of corticosteroids on bone tissue [13]. Progesterone has a tocolytic effect on the myometrium, regulates the movement of calcium into the cytoplasm of smooth muscle cells, limits the formation of oxytocin receptors in the myometrium and its transfer to the uterus. blocks the effect, reduces the formation and activity of prostaglandins. Biosynthesis of 250-300 mg of progesterone occurs in Placenta during the day. The steroid hormone 17-hydroxyprogesterone, one of the analogues of progesterone, is produced in small quantities in the placenta, it is an intermediate product of the biosynthesis of glucocorticoids and other hormones. In addition, there are different opinions about the independent role of 17-hydroxy-progesterone, which is not yet clearly known. It is known that the synthesis of glycoproteins and glycosaminoglycans can be stimulated by hormones. Although the mechanism of such therapy is unknown, 17-hydroxyprogesterone is used in clinical practice to prevent pregnancy [11,12]. Progesterone receptors are present not only in endometrium, myometrium, pre-ovulatory and luteinized granulosa cells, corpus luteum, testes, mammary glands, but also in endothelium, thymus, osteoblasts, bronchi, lungs and pancreas.

The results of small group studies show that the use of micronized progesterone in the early stages of pregnancy at 6-9 weeks reduces the risk of spontaneous abortion, prolongs the duration of pregnancy and increases the number of births [3]. Chromosomal defects cause a decrease in the effectiveness of progestogens even when used at 6-7 weeks of pregnancy and abortion. In 40-50% of cases, the cause of spontaneous abortion is determined, and in 50-60% of cases, it is not determined [5].

In one of the largest hospitals of Russia, 1241 women aged 18-25 years, 8-22 weeks, at risk of spontaneous abortion (low blood flow from the genitals, pain in the lower abdomen) were conducted. studies were conducted. Women were divided into 3 groups: Women in group 1 (n=399) received micronized progesterone 200 mg 3 times a day until symptoms of spontaneous abortion disappeared (small vaginal discharge, lower abdominal pain). accepted. After the disappearance of symptoms, micronized progesterone was taken 2 times 200 mg. Women in group 2 (n=436) received micronized progesterone 200 mg 2 times (morning and afternoon) intravaginally and 200 mg 1 time (at night). Women in group 3 (n=406) received dydrogesterone 40 mg once, then 10 mg dydrogesterone every 8 hours (until acute symptoms resolved). The results of the study showed that women in groups 1 and 2 had a significantly reduced risk of abortion compared to women in group 3 ($p = 0.019$). No statistical difference was found in women in the groups treated to eliminate vaginal bleeding ($p=0.392$). On the third day of the psychoemotional condition, women in groups 1 and 2 had lower levels of anxiety and depression than women in group 3 ($p=0.001$) [14].

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