

## Fetoplacental Insufficiency in Premature Birth

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**Abstract:** Uterine fibroids are a diagnosis that scares any woman. Such a decision of an ultrasound diagnostic doctor can make even the most resilient women panic. However, you should not suddenly worry about the risk of fibroids. First, during the next menstrual cycle, it is necessary to contact another specialist and repeat the ultrasound examination (UZI). What is uterine myoma, why does it appear, myoma treatment with conservative and surgical methods and what are its symptoms? We will dwell on this in detail.

**Key points:** Causes of uterine fibroids, Signs and symptoms of uterine fibroids, Treatment of uterine fibroids without surgery, Principles of conservative treatment of uterine fibroids, Recent discoveries in the treatment of uterine fibroids, Indications for surgical treatment of uterine fibroids, Uterine arteries embolization, Uterine myoma treatment using folk remedies, Myoma complications and consequences.

### WHAT IS UTERINE MYOBIA?

A uterine fibroid is a benign neoplasm (tumor) in the wall of the uterus or cervix. In addition, this disease is sometimes called fibromyoma, leiomyoma. In most cases, there are many foci of myoma in the uterus, the size of each of them varies from several millimeters to several centimeters. To express the size of myoma, gynecologists use a comparative measurement with the size of the uterus of women in different periods of pregnancy (weeks).

### CAUSES OF UTERINE FIBROMA

Often, the development of uterine fibroids is associated with hormonal disorders in women, especially with an increase in the concentration of estrogen. This hormonal disorder is more typical for young women in the reproductive period. Due to the natural decline of estrogen hormones during menopause, uterine fibroids may disappear on their own, regardless of treatment. In addition, the causes of uterine fibroids may include:

Hereditary predisposition;

Hormonal disorders;

Adenomyosis;

Inflammatory process in the genitals;

Metabolic diseases (including diabetes);

Chronic systemic diseases;

Sedentary lifestyle, overweight;

Chronic stress;

Effects of abortion, use of intrauterine (intrauterine) contraceptives;

Dissatisfaction with sexual life (sexual anorgasmia).

Some of the causes of uterine fibroids need to be explained in detail.

### **HORMONAL DISEASES**

Myoma is a hormone-dependent disease. When the level of female hormones in the body is low, that is, before puberty and after reaching the climax, the chances of developing uterine fibroids are very low. An excess of the normal concentration of estrogen hormones leads to the development of fibroids.

However, it is necessary to take into account that all hormones are interrelated in the human body, and uterine fibroids are often caused not only by high estrogen concentration, but also by a delicate imbalance of all hormones of the female reproductive system. Endogenous estrogen-like substances have been identified in the human body, and uterine fibroids are as sensitive to them as estrogens. These substances are called xenoestrogens, and their presence can also lead to tumor formation.

### **NUMBER OF PREGNANCY, BIRTH, ABORTIONS**

In the differential diagnosis of hormonal changes as the cause of fibroid formation, many factors are taken into account, for example, the beginning of a woman's menstrual period, the average length of the menstrual cycle, pregnancies, the number of births, the duration of breastfeeding and its presence in general. According to statistics, women who have given birth to at least one child are much less likely to develop fibroids than women who have no history of childbirth.

DIET Poor diets, such as high calorie intake, saturated fat and highly processed foods, as well as insufficient intake of plant fiber, lead to obesity, which increases the risk of uterine fibroids. An excess of fat percentage in the body leads to a violation of hormonal balance, in particular, a decrease in androgens and an increase in estrogens. Such hormonal diseases significantly increase the risk of developing both good-quality (endometriosis, uterine fibroids) and bad-quality tumors of the reproductive system and even breast cancer.

Women who do not consume food from animal sources are less likely to suffer from uterine fibroids. To reduce the risk of the formation of uterine fibroids, it is recommended to eat mainly complex carbohydrates, proteins with less saturated fat, as well as include more vegetables, fruits, and low-fat dairy products in the diet. A 10 kg increase in body weight increases the risk of uterine fibroids in women by 20 percent.

### **DIABETES AND HYPERTENSION**

At an early age (under 35 years), women with hypertension or metabolic diseases have a higher risk of developing fibroids.

The use of oral contraceptives, genital injuries (including childbirth and abortion), chronic inflammation of the female reproductive system contribute to hormonal disorders and can cause the development of fibroids.

### **SYMPTOMS AND SIGNS OF UTERINE MYOBIA**

Often, women do not suspect the presence of fibroids, no external symptoms may appear. Therefore, in many cases, a woman discovers that she has a fibroid only when she visits a gynecologist for completely different reasons or during a medical examination. When uterine fibroids are large, symptoms are almost always noted, in other cases, no signs and symptoms are observed.

## Symptoms of uterine fibroids

The symptoms of uterine fibroids are very similar to the symptoms of many other diseases of the reproductive organs. Therefore, if any of the following symptoms are detected, you should not delay a visit to the gynecologist for an accurate diagnosis.

Symptoms of uterine fibroids can be as follows:

Irregular menstruation, discharge of bloody discharge in the middle of the cycle;

In rare cases, bleeding from the uterus occurs, sometimes the amount of blood is very large;

Violation of the regularity of urination, frequent urination (due to increased pressure in the abdominal cavity due to a large tumor);

Long-term infertility, both primary and secondary;

Pain in the lower abdomen, a feeling of tightness;

Abdominal enlargement not associated with weight gain.

## TREATMENT OF UTERINE MYOMA WITHOUT SURGERY

In some cases, uterine fibroids can be treated without surgery. This type of fibroid treatment can be recommended in the following cases:

A woman approaches the climax period;

Myoma size is not more than 12 weeks;

Slow growth of myoma;

Absence of serious symptoms.

A number of drugs are used for the conservative treatment of uterine fibroids.

Gonadotropin-releasing-hormone antagonists can reduce the size of uterine myomatosis areas up to 50%, but there is a risk of recurrence of the disease. Long-term use is not recommended due to the lack of estrogen. The maximum duration of treatment is 6 months. It is often prescribed before surgery in order to reduce bleeding as a result of reducing the size of the tumor. Triptorelin (Decapeptil, Diferelin), buserelin, goserelin (Zoladex), leuprorelin (Lykrin depot).

Antiprogestagens shrink uterine fibroids, reduce pain. May be recommended as pre-surgical fibroid therapy. Mifepristone (RU-486)

Antigonadotropin is a group of drugs with many side effects and is rarely used in the treatment of uterine fibroids. Taking the drug can simply reduce the unconscious symptoms of fibroids. Danazol (Vero-Danazol, Danazol, Danoval, Danol, Danogen), gestrinone (Nemestran).

Progestogens There are many opinions about the effect of this drug group for the treatment of uterine fibroids. The effect of using these drugs has not been clinically proven. However, their use is justified when fibroids and endometrial hyperplasia are noted together, because in this case, the cause of uterine fibroids is a hormonal imbalance in a woman. Nor-ethisterone (Primolyut-Nor, Norcolut), medroxyprogesterone acetate (Provera), linesterol (Eskluton, Orgametril).

## FOOT ABLATION

FUT-ablation (fuz-ablation) or focused ultrasound ablation is an advanced method of non-surgical treatment of uterine fibroids. The principle of treatment is coagulation of myomatous nodes in the uterus using focused ultrasound (FUT) pulses. Direction and level control is performed in real time using MRI. This procedure is much safer and more convenient than the operation to remove fibroids. Unfortunately, FUT treatment is effective only for certain types of fibroids, so the decision to treat each patient is determined strictly individually. The advantages of this method are:

In the absence of injury, blood loss, the procedure is performed under the influence of mild sedative drugs;

Maintaining the integrity of the uterus and, as a result, reproductive ability;

Highly effective method;

Few side effects;

Preventing recurrence;

Fast recovery times (treatment can be performed without hospitalization).

### **PRINCIPLES OF CONSERVATIVE TREATMENT OF UTERINE MYOMA**

To get rid of myoma without surgical intervention, it is necessary to follow the principles of proper nutrition, hormonal and immune status recovery. In addition, it is recommended to take phytopreparations and homeopathic remedies. How to treat uterine fibroids without surgery? The main measures to eliminate myoma include:

Treatment and prevention of sexually transmitted diseases (STDs) and genital microflora disorders;

Restoration and stimulation of immunity;

Correction of the diet aimed at normalization of metabolism;

Work with the psychoemotional state of the patient;

Normalization of the menstrual cycle, elimination of uterine bleeding, measures against anemia.

### **RECENT DISCOVERIES IN THE TREATMENT OF UTERINE FIBROIDS**

Belgian scientists have worked to create a new drug that fights fibroids, which will help avoid hysterectomy in cases of significant progression of fibroids. As a result of research, a new generation of tablets - Esmya medicinal preparations - was developed. The active substance of this drug is ulipristal acetate. This compound is the basis of many emergency contraceptives and has a selective modulatory effect on progesterone receptors.

When it became known that the formation and development of fibroids depend not only on the estrogen background, but also on the progesterone content, scientists raised the issue of finding substances that eliminate the effects of progestogens on the body. Thus, a group of biologists at the Saint-Luc hospital of the University of Brussels decided to investigate the effect of ulipristal acetate on the development of fibroids that do not respond to conservative treatment.

To study the effect of the drug, 550 female volunteers who required surgery for the treatment of fibroids were recruited. The experiment lasted 3 months. After reviewing the obtained results, the scientists noted that the Esmya™ drug significantly contributed to reducing the size of myoma and reducing the severity of the clinical symptoms of the disease.

Such information is encouraging for doctors and many patients suffering from this disease. Perhaps, soon the treatment of uterine fibroids will be very easy and quick.

### **INSTRUCTIONS FOR SURGICAL TREATMENT OF UTERINE MYOMA**

Prompt surgical intervention for the treatment of fibroids is indicated in the following cases:

If there are many nodes, myoma is more than 12 weeks old and is crushing the small pelvis;

Heavy and frequent bleeding from the uterus;

The growth rate is more than 4 weeks per year;

Myomatous node necrosis;

Registration of uterine fibroids together with adenomyosis;

Submucosal nodule formation;

Twisting of the legs of the subserous node;

Submucosal fibroids.

Depending on the type of myoma, severity of the disease, location and other individual characteristics, the surgeon determines the method of myomectomy. Currently, there are 3 strategies for surgical treatment of fibroids:

### **EMBOLIZATION OF UTERINE ARTERIES**

Embolization, which is the blocking of the uterine arteries, is an excellent method for the treatment of fibroids, which has great potential. To carry out such a procedure, it is necessary to insert a special probe into the uterus and find a certain vessel that supplies blood to the myomatous node of the uterus. Then special substances are injected into this artery that cause vascular embolism. The nutrition of the tumor stops and gradually the tumor can be resorbed. Unfortunately, this operation is not suitable for any fibroid, and the consequences of such treatment and the risk of disease recurrence have not been fully studied. However, most doctors have a positive opinion and even state that a woman can get pregnant and carry a fetus after such a procedure. It should be remembered that the issue of preserving the reproductive function in each patient is individual.

### **TREATMENT OF UTERINE MYOMA USING TRADITIONAL REMEDIES**

When faced with such disappointment, many women try to look for alternative ways to solve this problem. After research, it turns out that all folk medicine methods of getting rid of fibroids at home are based on washing the vagina with medicinal plants and inserting tampons. Doctors urge not to conduct tests on the body and resort to independent treatment. Because medicinal preparations introduced at home can cause deterioration of health. In this case, folk medicine is ineffective, herbal medicines help reduce the symptoms of the disease, but do not stop the development of uterine fibroids. However, if there is a desire to try such a procedure, then it is recommended to discuss this matter with a doctor before starting.

### **COMPLICATIONS AND CONSEQUENCES OF MYOMA**

Although myoma often does not show any symptoms or is manifested but does not cause discomfort, women often ignore the diagnosis and treatment. It is very dangerous to ignore this part of the body. The disease can take the form of a low-quality tumor, which leads to uncontrolled growth and very unpleasant treatment, as well as many other unpleasant consequences.

### **MALIGNIZATION OF TUMORS**

One of the worst complications of uterine fibroids is the transformation of a benign tumor into a malignant one. Doctors believe that the probability of passing is not high, but there is. Therefore, if a fibroid is detected in the uterus, it is necessary to carefully monitor the condition of the reproductive system, regularly visit the gynecologist and undergo an ultrasound examination to control the size of the tumors. The last one is especially important, because it is the rapid growth of the tumor that is the first sign of its transition to oncological pathology.

### **DEVELOPMENT OF ANEMIA**

Not paying attention to one's own health, not strong but regular uterine bleeding caused by myoma leads to normal blood loss and the development of anemia syndrome. Another danger of this disease is that the gradual development of anemia allows the body to adapt to such a state, as a result of which the diagnosis and treatment to get out of this state are complicated.

### **LOSS OF REPRODUCTIVE FUNCTION**

Due to the growing problem of early diagnosis of pathologies of the female reproductive system, the number of women undergoing hysterectomy (removal of the uterus) due to fibroids detected at a late stage is increasing. This surgical intervention causes many unpleasant consequences and is a great stress for the woman's body. Unfortunately, in this case, the reproductive function cannot be implemented.

If surgical treatment is optimal from a medical point of view, a woman should think about her health first. In a woman's body, the uterus serves only to give birth to a child, and even without this organ, a woman can live a long and full life.

If the patient has children, the moral side of the problem is easily solved. Nevertheless, even if a woman does not have a child, it is not necessary to risk her life and health in order to preserve this possibility. If surgery is recommended, it means that the process cannot be stopped by other means and the loss of the organ is inevitable. One should not forget the possibility that the tumor will turn into a tumor of poor quality.

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