

INTERVENTIONAL RADIOLOGY

Non-Surgical Treatment of Myoma

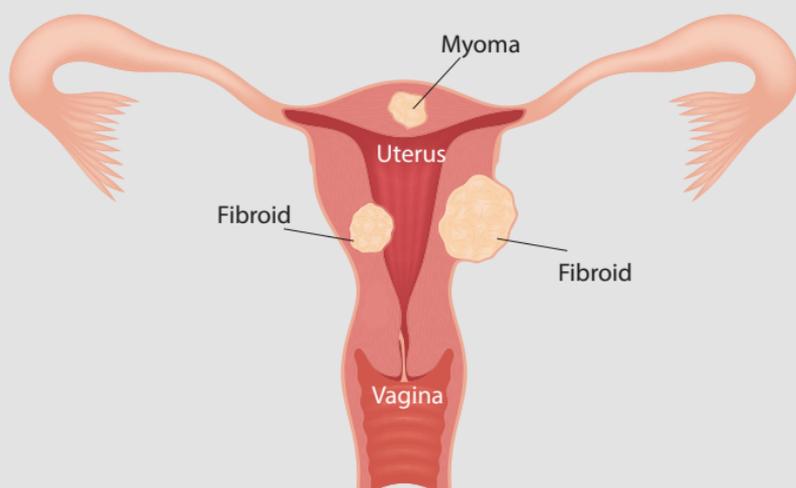


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Myoma is the most common benign tumor in women. It is usually seen in an average of 25% to 50% of women between the ages of 30 and 40.

The most important risk factors in myomas; are never giving birth, genetic predisposition, obesity and being a person of color. The time where myomas are observed the most is the premenopausal years before the age of 40, when the estrogen production is insufficient and the ovulation deteriorates. After the menopause, the myoma's growth stops and the current ones decrease in size.

Most of myomas do not cause any complaints; however, some of them may cause menorrhagia (bleeding too much), frequent urination and inguinal pain. They can also cause anemia due to prolonging periods and increasing their intensity. Due to this fatigue, quick exhaustion and falling asleep often is observed in patients.

HOW ARE MYOMAS DIAGNOSED?

USG

The main imaging method is ultrasonography. Ultrasonography is a medical imaging method that works with sound waves and does not cause any harm to the body. It can be used directly on the abdomen or inside the vagina.



Magnetic Resonance Imaging (MRI)

The most trustable method to reveal the location and number of the myomas is an MRI (magnetic resonance imaging). When discussing the treatment options, first an MRI examination with contrast matter targeting the lower abdomen should be done. The majority of patients have previously been examined by ultrasonography.

Since an MRI can take images on each of the 3 planes (front-back, side, and up-down), myomas with handles can be detected and the relationship between the endometrium and the submucosal myomas can be revealed clearly.

Treating Myomas Without Surgery, Myoma Embolization

When compared with traditional treatments such as hysterectomy and myomectomy, myoma embolization can bring advantages like a shorter hospital stay and getting better quicker.



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In this procedure, the main method is to stop the blood circulation to the myoma and shrinking benign tumors by “forcing them to starve”, and thus make the patient’s complaints go away or reduce them significantly. Related studies show that the complaints go away or reduce in 80-90% of the patients that have this procedure. Although the procedure was proven to be safe and efficient in previous studies, it still carries some risks, and its long term effects, if any, are unknown. Some of the patients with myomas that cause complaints can be eligible for uterine artery embolization.

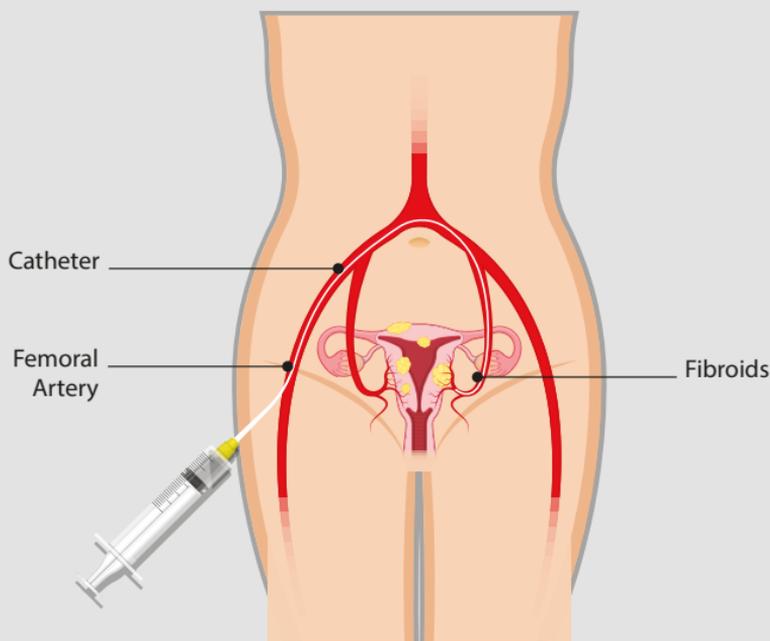
Under local anesthesia, the arteries that feed the uterus are entered with a thin catheter through the inguinal and some particles to obstruct these arteries are given. Myomas with obstructed arteries cannot feed and they shrink due to tissue death, thus complaints like pain and bleeding either disappears or reduce significantly. Normal uterine tissue keep feeding from the other arteries in the abdomen and does not get affected by the embolization process.

The most important advantages are that it is done via an angiography procedure under local anesthesia, it does not have any surgical incision and most of the patients can leave the hospital the next day. The superiority of this method to hysterectomy is that the uterus is protected; and the superiority of myomectomy is that it does not only affect the myomas which can be surgically removed, but that it affects all kinds of myomas in the uterus. However, like any method, embolization therapy is successful when applied to “correctly selected” patients, and this choice should be made by interventional radiologists and obstetricians.

Myoma Embolization Treatment Technique

Myoma embolization is a procedure done by interventional radiologists with an angiography device (DSA) under local anesthesia. Myoma embolization is done with the usual angiography technique. After giving the patient antianalgesics and sedatives, an injection is done on the side to be used to enter through the inguinal to numb the area via the angiography method. Then, the inguinal artery is entered and a very thin pipe (catheter) is sent to the arteries that feed the uterus.

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After the necessary angiographic examination, small particles are given from this pipe that clog the uterus and myoma arteries.

After the myoma embolization procedure, a majority of the patients stay at the hospital for one day and then go back to their daily lives and perform most of their daily activities. After the procedure pain, nausea and fever can occur for a few days but these can easily go away with medication. Pain goes away completely in 2-3 days on average and patients can go back to their usual lives. After embolization, complaints of bleeding, pain and other things disappear or reduce significantly at a percentage of 85-90.

Patients generally go back to their usual periods within 1-2 months. This rate is similar to the rates of myomectomy.

It has been observed that myomas do not recur easily after successful embolization.

In one study, patients were followed for 6 years and none of the embolized myomas had re-grown.

If embolization is inadequate, it can always be repeated, and if it fails despite repetition, surgical treatment options for the patient can always be applied. Due to these characteristics, embolization is the first treatment method that should be applied in many myoma patients.

Advantages of Myoma Embolization

Advantages of myoma embolization compared to myomectomy and hysterectomy surgeries used in the treatment of myoma;

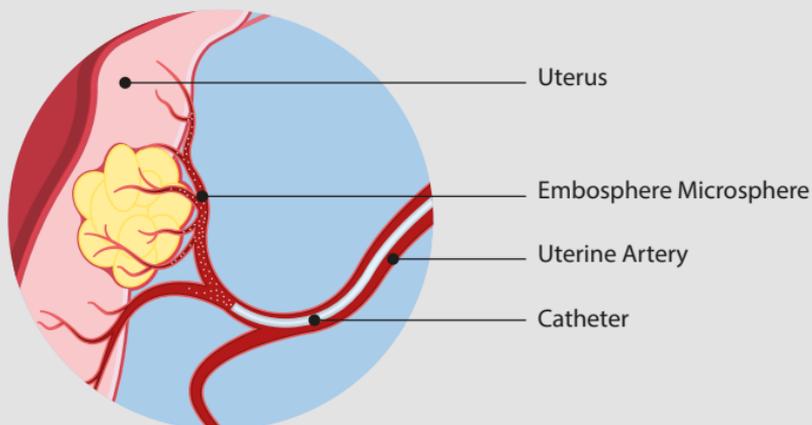
- The procedure is performed only by numbing the groin without general anesthesia or injections from the waist and by administering painkillers with the systems (PCA) under the control of the patients.
- Blood loss does not occur, blood transfusion is not required. There is no surgical incision, no scarring, all treatment is applied through a 2 mm hole in the groin.
- The length of stay in hospital and time needed to return to daily life are shorter.
- Complications may occur due to the procedure, but this complication rate is lower than myomectomy and hysterectomy.
- Unlike hysterectomy, the uterus and ovaries are not removed, so that there are no problems caused by hysterectomy while aiming to preserve fertility. Unlike myomectomy, not only the myoma removed by surgery, but all myomas in the uterus can be treated.

Risks of Myoma Embolization

Myoma embolization is a very reliable treatment method. Compared to myomectomy and hysterectomy, the rate of complications (problems related to the treatment) is relatively low. However, like every treatment, some side effects can occur after embolization as well.

- Damage can occur in the uterine tissue due to embolization in less than 1% of the patients that have the procedure.
- A small part of patients can stop having periods after the procedure. This is usually temporary, but it can be permanent in approximately 4% of the patients. Permanent amenorrhea (not having periods) is especially common in women whose age is over 45 and who is closer to menopause.
- Infection can develop in the uterus after embolization in less than 2% of the patients and additional treatments may be required.

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- Inflammation that is not microbial and vaginal discharge related to this can develop after the procedure in less than 2% of the patients.

- In 0-3% of the patients, the embolized myomas can be discharged in a way similar to giving birth. In rare cases, the cervical canal may be obstructed and they may need to be cleaned with and abortion.

- Myomas with thin handles (subserous myomas) may rarely fall into the abdominal cavity after embolization. These myomas that can cause pain or inflammation may need to be removed with laparoscopy.



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