Uterine Fibroids

Patient Information Series – What you should know, what you should ask.

What are uterine fibroids?

Uterine fibroids, also called myomas or leiomyomas, are benign fibromuscular tumors of the muscular portion of the uterus (myometrium). They appear as round-shaped nodular masses, with a consistency varying from hard and stony (as with a calcified leiomyoma) to soft (as with cystic degeneration), which provoke a distortion of the normal pear-shaped appearance of the uterus.

Uterine leiomyomas are by far the most common gynecological and pelvic lesion, occurring in about one-half of all women older than age 35 years and in up to 80 percent of women by age 50.

What are the potential causes of uterine fibroids?

The cause of uterine fibroids is unknown. Hormonal status, with the potential to grow during pregnancy as well as to decrease in size and degenerate after menopause, obesity, dark skin (with a low level of Vitamin D), and increased familial incidence are related to its prevalence.

What symptoms are associated with uterine fibroids?

Most of women with fibroids have no symptoms. Uterine fibroids are frequently diagnosed on the basis of clinical exam or noted on ultrasonography as an incidental finding of an enlarged, irregular uterus on pelvic examination. Depending on size, number, and location, fibroids can become symptomatic. The most common initial symptom associated with fibroids, and the one that most frequently leads to surgical intervention, is menorrhagia. Pelvic pain and infertility may also be present, as well as urinary or intestinal bulk symptoms due to bladder or rectosigmoid compression, respectively.

Fibroids can also be associated with pregnancy related complications such as difficulties in conceiving, recurrent miscarriages, abnormal implantation of the placenta, premature birth, and/or intra-uterine growth restriction (IUGR).

How are uterine fibroids diagnosed?

Fibroids can be diagnosed using ultrasound, usually a combination of transvaginal (TVS) and transabdominal (TAS) ultrasound, US usually consists of a combined approach. It is an accurate method for diagnosing fibroids in the outpatient department, with minimal discomfort. TVS is generally considered the first-line imaging tool, more sensitive and specific, with greater contrast and spatial resolution, in particular in obese patients.

TAS is helpful in providing an anatomic overview to better estimate overall uterine size, particularly in women with a large uterus extending over the pelvis. A three-dimensional reconstruction (3D-TVS) of the uterus can be performed at the same time to map the location of the fibroids. In addition, saline (a salt-water solution) can be infused through a small plastic tube in the cervix to separate the uterine walls, whilst performing the TVS to see the uterine cavity. This technique, known as saline infusion sonography (SIS), shows fibroids as lesions protruding into the uterine cavity. Some women may experience cramping during the procedure.

Hysteroscopy is a procedure where a thin, lighted telescope is inserted through the cervix to allow direct visualisation inside the uterus. It can be performed under local or general anaesthetic and allows diagnosis and treatment of submumous myoma (type 0, 1, and 2) at the same time. For incomplete visualization or indeterminate pelvic US findings, MRI is recommended. It is useful in cases of multiple leiomyomas (> 4) or a large volume uterus.

How are uterine fibroids treated?

The treatment of choice is conservative with a six-month scan after the diagnostic TVS, then yearly to rule out rapid growth. The management of uterine fibroids depends on symptoms, the patient's age and preference, and the experience and skills of the clinician. It may include judicious observation with ultrasound follow-up or medical, surgical, and radiologic-based treatments.

Medical treatment, based on oral contraceptives, selective estrogen or progesterone receptor modulators, and GnRH antagonists, should be considered in selected symptomatic patients, such as women approaching menopause to avoid surgery, women with medical contraindications to surgery, pre-operative treatment before myomectomy or hysterectomy to reduce myoma volume and/or to allow recovery of normal haemoglobin levels.

Surgical intervention is reserved for specific indications and associated symptoms, such as abnormal uterine bleeding, infertility, or recurrent pregnancy loss for distortion of the endometrial cavity; urinary symptoms with compression or discomfort symptoms for markedly enlarged uterine size; rapid myometrial lesion growth to exclude uterine sarcoma. Hysterectomy has long been considered as the definitive management of symptomatic uterine leiomyomas.

However, nowadays myomectomy is a robust alternative to hysterectomy for young patients who desire childbearing or prefer to retain the uterus. Laparoscopic myomectomy minimizes the size of the abdominal incision, although skilled surgical techniques are required for the risks to convert to a laparotomy and the risk of uterine rupture in a subsequent pregnancy. Hysteroscopic resection is the standard technique to manage submucous myomas (type 0, 1, and 2).

What could be the long-term issues with fibroids?

The risk of recurrence for fibroids has been reported to be as high as 50% after myomectomy, with up to one-third requiring repeat surgery. Pregnancies that occur with no or after treatment can be complicated by miscarriage, premature labor, and/or abnormal attachment of the placenta to the uterine wall depending on myoma on size, number, and location.

What other questions should I ask?

- Can you prevent fibroids from occurring?
- Do I have to have treatment for fibroids if I do not have many symptoms?
- What are my options if I want to become pregnant?

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