Symptomatic relief from fibroids can often be achieved with minimally invasive treatments.

UTERINE fibroids (leiomyomas or myomas) are benign, smooth muscle tumours of the uterus occurring in about 70–80% of women by the age of 50.

Fibroids occur only in the reproductive years and diminish in the postmenopausal years.

They grow under oestrogen and progesterone stimulation, but other factors are involved such as insulin-like growth factors, particularly IGF-II.

Interplay between multiple factors is probably responsible for fibroid growth and development.

See Table 1.

There are three types of fibroids:

- Intramural fibroids are the most common and are contained within the myometrium.
- Subserosal fibroids distort the endometrial cavity and sometimes are completely contained within the cavity (intracavity) and may cause severe flooding and menstrual pain.
- Submucosal fibroids grow from the outer surface of the uterus and distort its shape and size.

Most fibroids are asymptomatic but symptoms may occur due to the site, size and number in 20–50% of cases. See Table 2.

PREGNANCY AND BIRTH

Fibroids are related to infertility in 5–10% of cases, but it is rare (<3%) for fibroids to be the only factor. They may reduce fertility by causing impaired implantation, changes in muscle contractility and abnormal vascularity.

Fibroids may also cause problems during the pregnancy and birth, such as increasing the risks of miscarriage in the second trimester; preterm labour and delivery; infection; and operative delivery due to obstruction of the birth canal.

Investigations include palpation of an enlarged and/or irregularly shaped uterus by abdominal and vaginal examination.

If there is abnormal uterine bleeding, tests include FBE, TTFs and iron studies. A good quality ultrasound with saline infusion sonohysterography will outline a submucosal fibroid.

Referral to a gynaecologist is required for a hysteroscopy with or without endometrial biopsy or curettage to exclude submucosal fibroids. An MRI may also be considered.

Most cases are asymptomatic and are incidentally diagnosed with no treatment necessary.

THERAPIES

Pharmacotherapy may be required to reduce blood flow, such as tranexamic acid, progestins or oral contraceptives. However, with hormonal therapies there may be some increase in fibroid size.

A levonorgestrel intrauterine system will reduce blood flow unless the uterine cavity is markedly distorted.

Selective oestrogen receptor modulators, selective progesterone receptor modulators, progestosterone receptor antagonists and aromatase inhibitors have all been trialled. Mifepristone has shown good evidence in reduction in fibroid and uterine volume.

Gonadotrophin-releasing hormone agonists are prescribed (rarely) prior to pregnancy to reduce fibroid size by inducing a temporary hypo-oestrogenic state causing menopausal symptoms and bone loss if used for more than six months. However fibroids will recommence growing after cessation of therapy.

Interventional therapies such as uterine artery embolisation may be used to preserve fertility. MRI-guided ultrasound treatment is also used. However, this is not currently recommended for women who wish to become pregnant.

Surgery is still the gold standard for treatment of symptomatic fibroids. The size, site and number of fibroids need to be carefully evaluated prior to surgery.

New techniques include use of heat, coagulation, radio frequency and laser either by hysterotomy or laparoscopy. Hysterectomy is recommended for women not wanting to retain fertility who have an enlarged uterus with multiple fibroids causing major symptoms.

Myomectomy is performed when a woman wishes to retain her uterus or retain her fertility. Laparoscopic myomectomy should be performed by a skilled, advanced-trained gynaecological laparoscopic surgeon.

Open myomectomy is by laparotomy with uterine wall incision and removal of the fibroids. This is an appropriate procedure where fibroids are large or multiple.

Endometrial resection of submucosal fibroid is appropriate for intracavity fibroids.

Jean Hailes for Women’s Health is a national, not-for-profit organisation focusing on clinical care, innovative research and practical educational opportunities for health professionals and women.

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TABLE 1. RISK AND PROTECTIVE FACTORS FOR FIBROID GROWTH

<table>
<thead>
<tr>
<th>Increased risk</th>
<th>Decreased risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early age of menarche</td>
<td>Smoking</td>
</tr>
<tr>
<td>Nulliparity</td>
<td>Multiparity</td>
</tr>
<tr>
<td>Obesity</td>
<td>Menopause</td>
</tr>
<tr>
<td>Family history</td>
<td>African-American (earlier onset and large tumours compared to Caucasian women)</td>
</tr>
<tr>
<td>African-American (earlier onset and large tumours compared to Caucasian women)</td>
<td>Increasing reproductive age</td>
</tr>
</tbody>
</table>

TABLE 2. FIBROID SYMPTOMS

Abnormal uterine bleeding may present as:

- increased heaviness
- +/- flooding
- prolonged and intermenstrual bleeding
- associated iron deficiency or anemia
- pain.

Pressure in the back, bowel or bladder may cause:

- urinary retention or frequency
- incomplete emptying of the bladder
- incomplete emptying of the bowel
- large palpable abdominal mass with increasing girth
- backache or pain
- acute pain (due to degeneration of the fibroid).