Fibroids - Management

Scenario: Diagnosis of fibroids

How do I know my patient has fibroids?

- **Fibroids are commonly asymptomatic** and may be identified incidentally by examination or investigation for gynaecological problems (such as failure to conceive or during a routine pregnancy assessment).
- **Women with symptoms from fibroids** present:
  - Most commonly with menorrhagia in their 30s and 40s.
  - Less commonly with abdominal swelling, pelvic pain or discomfort, dyspareunia, or constipation or urinary symptoms due to compression of adjacent structures.
  - Rarely with acute severe abdominal or pelvic pain following torsion of a pedunculated fibroid or 'red degeneration' of a fibroid during pregnancy requiring hospital admission for analgesia.
- **On pelvic examination:**
  - A typical fibroid mass arises out of the pelvis, has an irregular knobbly shape, a firm or hard consistency, and can be moved slightly from side to side.
  - Any movement of the abdominal mass moves the cervix.
- **Confirm the diagnosis and exclude more serious causes of the woman's symptoms and signs.**
  - **Arrange a routine ultrasound scan** for women with typical features of uterine fibroids and no features of cancer.
  - **Arrange an urgent ultrasound scan** for women with a mass that is not obviously caused by fibroids but has *no* other features of cancer.
  - **Urgently refer to a gynaecologist** all those women with a pelvic mass associated with any other features of cancer (such as unexplained bleeding or weight loss).

[Browse, 2005; NICE, 2005; Parker, 2007]

What else might it be?

- Malignant causes of a pelvic mass include:
  - Ovarian cancer.
  - Endometrial cancer.
  - Leiomyosarcoma.

- Benign causes of a pelvic mass include:
  - Benign ovarian mass caused by hemorrhagic cyst, dermoid cyst, or endometrioma.
  - Adenomyosis that may be difficult to distinguish from multiple small fibroids and may coexist with them.
- Other causes of a pelvic mass include:
  - Pregnancy.
  - Full bladder.

[Gibbs et al, 2008]

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Scenario: Fibroids

How should I manage fibroids?

- **For women with menorrhagia** associated with fibroids:
  - **Treat symptomatically** — for further information, see the CKS topic on Menorrhagia.
  - **Refer** women with fibroids associated with menorrhagia that is poorly tolerated despite symptomatic treatment.
- **Refer those women with compressive symptoms from large fibroids.** This includes women with:
  - Dyspareunia, pelvic pain or discomfort, *or*
  - Constipation, or urinary symptoms.
- **Refer those women with fertility or obstetric problems associated with fibroids.**
  - For further information about managing women with fertility problems, see the CKS topic on Infertility.
- **For women with fibroids that are asymptomatic —** referral for secondary care treatment is not required unless:
  - Fibroids are palpable abdominally, *or*
  - Intra-cavity fibroids are present, *and/or*
  - Uterine length as measured at ultrasound or hysteroscopy is greater than 12 cm.

Basis for recommendation

Referral of women with fibroids causing symptoms

- These recommendations are based on expert opinion [NICE, 2007].

Referral of women with fibroids causing fertility or obstetric problems

- These recommendations are based on expert opinion [Haney, 2008].

Referral of asymptomatic women with fibroids for specialist assessment

- These recommendations are based on expert opinion [NICE, 2007].
- Referral allows for specialist assessment of women who are currently asymptomatic but who may have problems in the future (for example problems conceiving, or obstetric problems in the event of pregnancy).

What methods of contraception are recommended for women with fibroids?

- **For women with fibroids:**
  - **Who do not have distortion of the uterine cavity,** all methods of contraception can be used without restriction.
  - **Who have distortion of the uterine cavity,** copper intrauterine devices and the levonorgestrel-releasing intrauterine system should not be used if they cannot be easily fitted. All other methods of contraception can be used without restriction.
- For further information, see the CKS topic on Contraception.

Basis for recommendation

These recommendations are based on expert opinion taken from the *UK medical eligibility criteria for contraceptive use* published by the Faculty of Sexual and Reproductive Healthcare (FSRH), formerly the Faculty of Family Planning and Reproductive Healthcare (FFPRHC) [FFPRHC, 2006].

- It is not clear from the available evidence what effect hormonal methods of contraception have on the size of pre-existing fibroids [Parker, 2007].
- Experts are of the opinion that copper intrauterine devices and levonorgestrel-releasing intrauterine systems may be used in women with fibroids, provided they can be easily fitted [Mansour, Personal Communication, 2007].

Can I prescribe HRT for women with fibroids?

- **For women with no symptoms from their fibroids:**

- The decision to treat menopausal symptoms with hormone replacement therapy (HRT) should be taken by the woman after she has been informed of the risks and benefits of treatment (as for all women considering HRT). This should include an explanation that:
- In some women, HRT may modestly increase fibroid size. If this occurs, there is a small risk that it will cause symptoms.
- If symptoms develop, the fibroid usually shrinks quickly after stopping HRT and alternative treatments for menopausal symptoms can then be tried.
- After starting HRT in women with fibroids:
- Enquire about symptoms from fibroids at each medication review. Advise the woman to return for an early review if symptoms develop at any time.
- Most experts consider it unnecessary to routinely monitor the size of asymptomatic fibroids (either by clinical examination or by ultrasound examination).
- For further information about HRT, see the CKS topic on Menopause.

- **For women with symptoms attributable to fibroids,** seek specialist advice before prescribing HRT.

Basis for recommendation

Treatment of asymptomatic women with fibroids with hormone replacement therapy (HRT)

- It is accepted good practice to explain the risks and benefits of HRT to allow the woman to make an informed choice about treatment.
- The risk of fibroid enlargement with HRT is based on limited evidence that women treated with HRT for 12 months may experience an increase in the size of pre-existing fibroids.
- The risk of symptoms due to fibroid enlargement caused by HRT is considered by experts to be low [Parker, 2007].

Routine monitoring of the size of asymptomatic fibroids after starting HRT

- CKS found no published expert opinion on the routine monitoring of fibroid size after starting HRT.
- There was consensus among CKS expert reviewers that routine monitoring of the size of asymptomatic fibroids after starting HRT is unnecessary (unless there is another indication for it).

What treatment may be offered following referral?

Treatment options for fibroids

- **Women with fibroids causing menorrhagia or compressive symptoms:**

  - **Who do not necessarily wish to preserve their fertility or uterus,** may be offered medical treatment, hysterectomy, myomectomy, myolysis, or uterine artery embolization.

  - **Who wish to preserve their uterus, but not necessarily their fertility,** may be offered medical treatment, myomectomy, myolysis, or uterine artery embolization.

  - **Who wish to preserve their fertility,** may be offered medical treatment, myomectomy, or uterine artery embolization (if myomectomy is unsuitable or has failed).

- **Women with fibroids causing infertility or anticipated obstetric problems,** are usually offered myomectomy.

- For more information, see Medical treatment of fibroids and Surgical treatment of fibroids.

Medical treatment of fibroids

- **Medical treatments** include suppression of ovarian steroid production with gonadotrophin agonists, to induce a reversible artificial menopause and shrinkage of fibroids.

  - When used alone, adverse effects generally limit treatment duration to 6 months. Adverse effects include typical menopausal symptoms, accelerated bone loss, and loss of cardiovascular protection. Medical treatment may be used before hysterectomy or myomectomy to reduce the size of fibroids before surgery.

  - Medical treatment of fibroids may be combined with low-dose hormone replacement therapy (HRT), to reduce menopausal symptoms and bone loss, allowing for longer-term management of fibroids. Such medical treatment combined with low-dose HRT is known as 'add-back therapy'.

Surgical treatment of fibroids

- **Surgical treatments commonly used include:**

  - **Hysterectomy.** Removal of the uterus relieves symptoms, prevents recurrence, provides permanent contraception, and allows treatment with oestrogen-only HRT. Options for hysterectomy include approach through the vagina or abdomen (either by open or laparoscopic surgery). It may include removal or preservation of the ovaries, and/or removal or preservation of the cervix.

  - **Myomectomy.** Resection of submucosal fibroids and pedunculated fibroids protruding into the uterine cavity may be carried out by hysteroscopic myomectomy. This is minimally-invasive and may be carried out as day surgery. For intramural and sub-serosal fibroids,

an abdominal approach (either laparoscopically or by an open procedure) is required. Following open myomectomy, adhesions are common and new fibroids may develop.

- **Surgical treatments less commonly used include:**

○ **Uterine artery embolization.** This is a relatively new treatment for fibroids that is provided by interventional radiologists. It involves cannulating the femoral artery and identifying the uterine arteries before injecting an embolic agent into them to impair the blood supply to the uterus and fibroids. This has a differential effect on fibroids (that have a higher blood supply than the surrounding myometrium). The long-term safety and effectiveness of this technique have not yet been fully evaluated by clinical trials, but short- and medium-term studies comparing uterine artery embolization with hysterectomy have found that:

○ Symptom control is less effective than hysterectomy, with up to 10% of women requiring further treatment within 1 year and 25% within 4 years.

○ The complication rate is similar to hysterectomy.

○ The length of hospital stay and recovery time is reduced compared with hysterectomy.

○ **Myolysis.** A number of techniques have been used to induce necrosis in fibroids, including:

○ **Diathermy, laser ablation, and radiofrequency ablation** — approached either laparoscopically or transcutaneously using radiological guidance. Good quality evidence is lacking on the effectiveness and safety of these techniques, which are not widely available.

○ **Magnetic resonance imaging (MRI)-guided focussed ultrasound** is a non-invasive technique that is currently being evaluated in research centres in the UK. It is not yet generally available. High levels of ultrasound energy, directed by MRI, are accurately focussed on individual fibroids. The ultrasound energy is dissipated as heat within the fibroid, inducing aseptic necrosis of the fibroid but leaving the surrounding tissues unharmed.

Basis for recommendation

This information on the secondary care treatment of fibroids is taken from an expert summary of treatment options [Haney, 2008].