Endometriosis and surgical menopause (removal of both ovaries)

Endometriosis

Endometriosis affects 10% of women and those assigned female at birth. Endometriosis is where cells similar to those lining the womb (the 'endometrium') grow elsewhere in the body, forming so-called endometriosis 'lesions'.

There are three types of endometriosis. Most commonly the lesions grow on the lining of the pelvic cavity (the space around the womb, bowels and bladder) and this is called 'peritoneal' endometriosis. It can also affect the ovaries causing cysts – endometriomas, sometimes called 'chocolate cysts'. The third type is called deep endometriosis which is when the lesions are more than 5mm deeper than the peritoneum. This type of endometriosis often affects the bowel.

Endometriosis can cause pelvic pain, pain with periods, pain with sex, pain opening the bowels and passing urine, and difficulty getting pregnant. There is no current cure for endometriosis, and we don't yet know what causes it, or why some women get it. Current treatments for endometriosis include lifestyle changes, surgery to remove the lesions, and hormone treatments that supress the ovaries.

Some of the treatments for endometriosis can induce a menopause. These include:

- Medications called **Gonadotrophin-releasing hormone agonists** (e.g. injections such as decapeptyl, zoladex, prostap) and **Gonadotrophin releasing hormone antagonists** (e.g. elagolix or relugolix). These supress your own hormones and you are likely to experience menopausal symptoms. These usually stop when the medication is discontinued (a reversible menopause).
- Surgery that includes removal of both the ovaries – a **bilateral salpingo-oophorectomy**. This is often done at the same time as removal of the womb (hysterectomy). Removing the ovaries permanently induces menopause.

Why does inducing menopause help endometriosis symptoms?

Endometriosis lesions respond to the hormone oestrogen. Oestrogen causes the lesions to grow and behave like cells lining the womb, causing inflammation and scarring. Oestrogen levels go up and down across the menstrual cycle. Inducing a menopausal state by removing the ovaries can prevent stimulation of the endometriosis lesions and thus reduces pain. It can also reduce the risk of endometriosis recurring (1, 2). However, the decision to remove ovaries needs to be balanced against the risks of an earlier menopause, including the possible need for HRT.

Won't a hysterectomy without removing ovaries help?

For some patients with endometriosis just removing the endometriosis and the womb will improve their pain, particularly if they have heavy periods or a condition that is often associated with endometriosis called adenomyosis. However there may be a higher chance of recurrent endometriosis and pain if the ovaries are conserved: for women undergoing surgery for endometriosis, many will have improvement in their symptoms but pain can return in up to half of patients within the next five years (3) and two thirds will

undergo more surgery (4). However, if the ovaries are removed at the same time as a hysterectomy for endometriosis, patients are around six times less likely to need further surgery (1).

Surgery to remove ovaries after a previous hysterectomy can be a more complicated operation due to scarring from the original operation, particularly if deep endometriosis was removed. The risk of damage to the ureter (the tube than connects the kidneys to bladder) is particularly increased at surgery to remove the ovaries after a previous hysterectomy.

In view of the higher risk of recurrent pain with conservation of the ovaries, and the complexity of future surgery to remove them, we recommend removal of the ovaries at the same time when performing a hysterectomy for endometriosis.

What are the risks of a surgical menopause?

Those with a surgical menopause due to endometriosis are usually younger women, below the age of natural menopause. The loss of oestrogen can put them at higher risk of osteoporosis and heart disease. The other issue is that patients develop menopause symptoms.

The menopause symptoms women experience are the same as with natural menopause but they usually develop suddenly in surgical menopause and can feel a bit overwhelming if they're not expected. There is evidence to suggest that providing women with information of what to expect can reduce the psychological and physical impact (5).

What are the symptoms of menopause?

Vasomotor symptoms (hot flushes and night sweats) are the most common symptom. Other common symptoms include: sleeplessness, fatigue, dry skin, dry hair joint pain, and headaches. Cognitive symptoms such as 'brain fog', reduced concentration, and poor memory are also common and some will experience low mood or depression, anxiety, and mood swings. 'Urogenital' symptoms include: vaginal dryness discomfort with sex, irritated skin, urinary frequency, and more frequent urinary infections.

Not every individual will experience the same symptoms or to the same severity, and equally the same symptoms will have different impact on different women.

Why is Hormone Replacement Therapy (HRT) important in managing women with a surgical menopause?

HRT has been shown to be protective for the risk of cardiovascular disease and osteoporosis and can improve distressing symptoms of the menopause, such as hot flushes (6).

What can my health professional do to help with these symptoms?

HRT is very effective at reducing menopause symptoms so starting HRT is usually the first thing your medical professional will offer to do. In certain situations we may not be able to offer you HRT – for example if you have had breast cancer. We will discuss the other options with you. Other medical treatments for menopausal symptoms include medications such as a group of drugs called SSRIs, gabapentin and oxybutynin. These can be helpful for some symptoms of menopause but don't provide any bone or cardiovascular protection.

What type of HRT should I have?

The best HRT for women with endometriosis having both ovaries removed under the age of natural menopause contains two hormones, oestrogen and progesterone, and is given continuously with no breaks. This can be given as tablets, patches, or gel, depending on what you would like and your situation. This combined HRT should be given for at least the first few years after removal of the ovaries but may be changed to oestrogen-only HRT later as this may have a better safety profile for women over the age of natural menopause. However there is a small risk of reactivating any remaining endometriosis with oestrogen-only HRT – your doctor will discuss the pros and cons of this with you.

Ideally HRT should be continued until at least the age of 51 for all women in induced menopause to help protect bones and heart health.

For women with vaginal symptoms, vaginal oestrogen tablets or cream are very effective and are safe to use alone or in combination with standard HRT in women with endometriosis.

You can read more about the different types of HRT, risks and benefits of HRT and other helpful information at www.womens-health-concern.org/help-and-advice/factsheets.

When to start HRT?

In those who are having a surgically induced menopause then the timing of starting HRT will often depend on the type of HRT that you are planning on using. HRT tablets increase the risk of clots in the legs slightly, and after an operation this risk is increased further for the first few weeks. As a result, if you want to use tablet HRT we would recommend delaying this until six weeks after your surgery. If you want to use patch, gel or spray HRT this can often be started immediately as the risk of clots is much less with these types of HRT. The best timing often varies between each individual – your doctor will discuss this with you.

Is there a risk of worsening endometriosis by taking HRT after having an oophorectomy?

There is a theory that HRT contains just enough hormone to keep your bones healthy and to help with menopause symptoms, but contains a low enough dose to not have an effect on endometriosis. This is called the estrogen threshold theory. This means that it is rare for endometriosis to recur or get worse when on HRT, but it is possible. It is more likely if there is any residual endometriosis, and your HRT only contains oestrogen (7). As such we usually recommend using HRT which contains both oestrogen and progesterone for patient who have a history of endometriosis.

You can read more about the risks and benefits of HRT and other helpful information at www.womens-health-concern.org/help-and-advice/factsheets.

Is there a risk of reactivated endometriosis transforming into cancer?

There have been a few reported cases of reactivated endometriosis turning into cancer, however this is very rare (8). This is more likely to happen if people use oestrogen-only HRT, as progesterone provide protection against cancer.

Overall for those who have had their ovaries removed before the age 45 or who have significant menopause symptoms, the evidence suggests that the benefit of taking HRT to manage the menopause symptoms outweighs the small risk of worsening of the endometriosis or risk of cancer (9).

What can I do to help menopause symptoms apart from HRT and other medications?

Increasing your exercise levels can help to reduce stress which can help manage menopause symptoms and can also help with weight loss. Managing your weight has lots of health benefits and can lessen symptoms of menopause as well. You could discuss with your GP about talking therapies, particularly cognitive behavioural therapy. We don't recommend the preparations that can bought over the counter which contain plant-based oestrogens – 'phytoestrogens' - as we don't know their effect on endometriosis. Stopping smoking is also very important as this increases the risk of osteoporosis, heart disease and breast cancer.

Where can I get more information?

Please see our EXPPECT website for more information about pelvic pain and endometriosis, treatments for endometriosis and the services offered by EXPPECT: www.exppectedinburgh.co.uk.

The Women's Health Concern website also has many helpful factsheets and other resources which have been developed with the British Menopause Society: www.womens-health-concern.org/help-and-advice/factsheets.

This information sheet was prepared by clinicians from EXPPECT and the Chalmers Menopause Service. Some information in this sheet has been adapted from material prepared by the Women's Health Concern and the British Menopause Society:

https://www.womens-health-concern.org/wp-content/uploads/2022/08/14-WHC-FACTSHEET-Induced-menopause-info-for-women-AUG2022-01C.pdf

https://thebms.org.uk/wp-content/uploads/2022/08/10-BMS-TfC-Induced-Menopause-in-women-with-endometriosis-AUG2022-01A.pdf

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