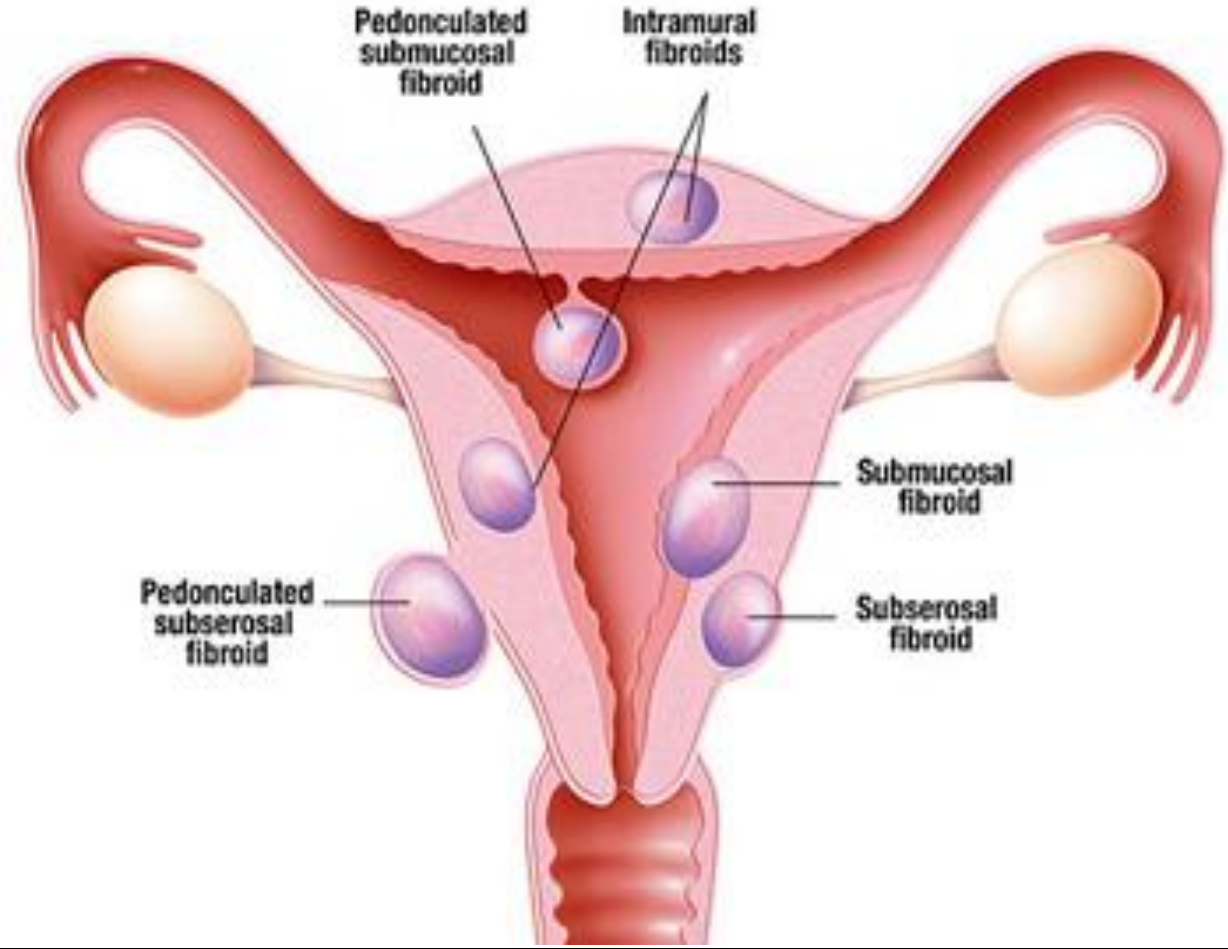
GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Caerdydd a'r Fro
Cardiff and Vale University Health Board

Uterine Artery Embolisation for the management of Fibroids



Catherine Wadmore 2021

What are fibroids?

Fibroids are non-cancerous growths in or around the womb which can cause heavy bleeding, pressure on the bladder or bowel, or pain in the abdomen. They can also make it difficult for some women to get pregnant or carry a pregnancy to term. The treatment options available to you depend on the exact position of your fibroids, your medical history, your views on surgical intervention and your desire for future pregnancies.

Options for Treating Fibroids

Short-term: One therapeutic approach to reducing the size of your fibroids involves the use of oral medication. Your doctor will discuss the various options with you. The role of medicated treatment with fibroids will depend upon your age and your wish to become pregnant in the future.

Long-term surgical options:

1. **Myomectomy** (abdominal, laparoscopic or hysteroscopic surgical approach). This method is most suitable for removing the fibroid when the fibroid is mostly inside the uterine cavity (womb) or mostly outside the uterus
2. **Hysterectomy** (surgical removal of the uterus). This usually involves leaving the ovaries in place, and sometimes the cervix will not be removed (sub-total hysterectomy)

These procedures are invasive and can give rise to post operative complications such as haemorrhage, infection, pelvic adhesions and pain and injury to other structures.

3 Uterine artery embolisation (UAE)

Uterine fibroid embolisation, sometimes known as uterine artery embolisation, involves the blockage of the arteries supplying blood to the fibroids, effectively reducing their size, improving symptoms. Unlike the other forms of treatment for symptomatic fibroids, only a local anaesthetic and morphine are used. Fibroid embolisation is a relatively new way of treating fibroids and is an effective alternative to an operation. With embolisation, risks of surgery, anaesthesia and long hospital stays are minimised. This method of managing your fibroids, particularly appeals to women who are seeking an alternative to surgery. It is performed by a radiologist, rather than a surgeon. With the use of a fluoroscope (live action x-ray machine)

a small catheter is inserted through the femoral artery, which is then followed to the uterine artery, and thus to the blood supply of the fibroids. Tiny particles are then injected into the arterial capillaries, effectively blocking the flow of blood, and nutrients, to the fibroids. Then the catheter is removed from the artery and the procedure is complete.

Are there any risks?

Fibroid embolisation is a safe procedure, but as with any medical procedure there are some risks and complications that can arise.

- Occasionally a small bruise may develop in your groin at the needle entry site, this can occur in up to half of patients. Major bruising around the groin is a rare complication (less than 1%) usually not requiring any treatment, however in the worst cases further intervention such as transfusion, surgical evacuation or ultrasound compression can be required.

- Very occasionally the procedure is not as effective at improving symptoms as we would like it to be. This is sometimes due to a different blood supply to the fibroids. If this occurs your doctor will explain the options for further treatment.

- Most patients feel some pain afterwards, which ranges from very mild to severe crampy, period-like pain. It is generally worst in the first 12 hours, and is controlled by painkillers. You will be given painkiller tablets to take.

- Most patients get a slight fever after the procedure. This is a good sign as it means that the fibroid is breaking down. Painkillers help control this fever.

- Vaginal discharge can occur afterwards and may be bloody, due to the fibroid breaking down. This can persist for up to two weeks or can be intermittent for several months. If the discharge becomes offensive, and if associated with a fever, there is the possibility of infection and you should ask to seek medical advice urgently.

- The most serious complication of fibroid embolisation is infection, which may occur in 2% of women. Severe pain, pelvic tenderness and a high temperature can occur. Lesser degrees of infection can be treated with antibiotics, or a dilatation and curettage (D&C) - a minor surgical procedure to remove uterine products. In severe cases an operation to remove the womb may be necessary but this is extremely rare. If you feel

that you would not want a hysterectomy under any circumstances, then it is probably best not to have fibroid embolisation performed.

- There is a 1-2% chance that the procedure will lead to premature menopause or irregular periods. This occurs usually in women who are 45 years or older. Most women find it takes about six to nine months to resume a regular menstrual cycle.

- Less frequent risks include non-target embolisation complications such as skin necrosis in the areas where micro-particles lodge or neurological symptoms including skin paraesthesia (numbness) and weakness of lower limb motor function. Rarely some embolisation particles go into the general circulation and may affect other structures such the bladder, colon, skin or limbs.

How will this affect my fertility?

Some women, who could not become pregnant before the procedure because of their fibroids, have become pregnant afterwards. The consequences of the procedure on your fertility is variable and you should discuss this with your clinician. However, it is important that women undergoing this treatment must not become pregnant during the first nine months after treatment. The most current evidence is referenced at the end of this leaflet.

Pre-procedural checks

Before your embolisation you will have a consultation in the Gynaecology clinic with a pelvic examination and a vaginal scan. The purpose of the scan is to measure the number, size and position of the fibroids and the thickness of the lining of the womb. A small sample of tissue from the lining of the womb (endometrial biopsy) may be obtained if indicated for examination in the laboratory to exclude abnormal cells in the womb. In most cases an MRI scan will be requested to confirm suitability for the procedure.

Although fibroids are non cancerous growths, very rarely women who have had a hysterectomy for fibroids have been found to have a cancerous type of fibroid called a leiomyosarcoma as a result of examination of the uterus. The risk of this happening is less than 1 in 5,000 cases. Unfortunately, there is no reliable test to check for this before hysterectomy or embolisation. Follow up after your procedure can help to detect this. If you decide that embolisation is the right treatment option for

you then you should consider this small risk. Also, in cases where the embolisation does not shrink your fibroid or the fibroid continues to grow then we recommend that you have a hysterectomy because this small risk of cancer cannot be excluded.

The consultant radiologist will explain the procedure at a separate consultation and confirm your suitability before you are listed. He may also take written consent at this appointment.

On Admission

You will need to make arrangements to attend the gynaecology ward C1 in the University Hospital of Wales, usually the day before your procedure. An admission letter will confirm these details. You may have a light breakfast on the day of the embolisation and drink fluids as normal. While on the ward your blood pressure, pulse, temperature etc will be checked and you may have blood taken for necessary tests. You will be fitted with anti-embolic stockings which come up to your knees; these prevent blood clots forming in your legs whilst you are on bed rest.

You will have a cannula inserted into the back of your hand (a small needle) which will remain in place so that you can be given medications into a vein. The pain team will visit you and set up a morphine patient controlled analgesia infusion (PCA) into the cannula, this will enable you to self administer pain relief just by pressing a button. Some antibiotics and painkillers need to be given rectally (into the back passage).

When your PCA infusion pump is set up you will be informed that a side effect of the pain killing medication is sickness. If you feel sick at all during the procedure, please let the radiology nurse know as they will be able to give you some anti-sickness medication.

The Procedure

When it is time for your procedure you will be escorted to the x ray department in a wheelchair by the nurse and porter. You will be greeted by a radiology nurse or radiographer. They will ensure that you have been appropriately prepared for your procedure by reviewing a checklist with you. If you have not already done so you will also meet the radiologist who will be performing the procedure. They will explain to you about the procedure and give you an opportunity to ask them any questions. Before entering the X ray room it is important to let us know if you need to use

the toilet as once the procedure has started we will not be able to move you from the X ray table.

In the Procedure Room

You will then be taken into the x ray room. You may find it quite cool due to the air conditioning within the rooms. Please let us know if you are too cold. You will then be asked to lie, on your back, on the x ray table. The nurses will attach you to a monitor that will record your heart rate, blood pressure and blood oxygen levels. The doctor or nurse will clean your skin around your groin area with some cold fluid. They will cover you with a sterile drape. The drape will be placed from under your chin down to your feet. If you need to move at any time during the procedure please ask the doctors or nurses in case you accidentally move or touch the drape.

Once the X-rays have started the radiology nurse looking after you will not stand right next to you because of radiation protection to themselves, but if you need them at all please call and they will come to assist you. Even if you cannot see them they will be there. The doctor will inject local anaesthetic (which will 'numb' the area) into the skin around your groin area. When the local anaesthetic is injected, it will sting to start with, but this soon passes off, and the skin and deeper tissues should then feel numb. The doctor will then use fine instruments with the help of x-ray guidance, to locate the fibroid. You may be able to feel pressure and pushing sensations but this should not be painful. If you feel uncomfortable at any time please let us know. The doctors will also use an x-ray dye during the procedure. They will inject the dye into your blood vessels which can give you a hot 'flushed' feeling which will pass quickly. Some women have a sensation that they need to pass urine. Once the doctors have located the fibroid they will use an embolisation material which looks like tiny 'particles' to block off the blood supply to the fibroid. Once the blood supply to the fibroid starts to decline you might feel some 'cramping' pain -remember to keep using your PCA infusion pump, but if the pain is uncontrolled please let the nurses know as they can contact the pain team to come and give extra pain killer. The procedure takes approximately 60 minutes, but it can take longer especially if the blood vessels which are supplying the fibroid are difficult to find. Both the right and left uterine arteries need to be blocked, but usually this can be done from the same groin puncture.

When the procedure has finished the doctors will remove all of the tubes from your groin. As these tubes have been inside quite a large blood vessel the doctor will have to press firmly for about 10 minutes to stop the

bleeding. Once the bleeding has stopped and the radiology nurses and doctors are happy you will be escorted back to the ward where your care will be handed back to the staff nurse.

If the pain is not managed by the morphine PCA the procedure does become too painful for you, the nurses will contact the pain team who can give you some extra painkillers.

What Happens Afterwards?

After your procedure you will need to lie flat (with one pillow). It is important not to lift your head as this causes pressure within your stomach (which may lead to bleeding from the groin puncture site).
The affected leg will need to be kept straight and the nurses will regularly check the puncture site and the pulse in your foot to check for any complications such as bleeding or swelling.

Regular checks will also be conducted on your temperature, breathing rate, blood pressure and pulse. The nurses will ask about your pain and sickness level so that you can be given relief medication accordingly.
As long as there are no complications, you may gradually start to sit up after a few hours and then gently mobilise around the ward. If you need the toilet the nurses will assist you with a bed pan. You can eat as normally will need to drink plenty in order to 'flush' the x-ray dye out of your body. An intravenous drip is usually continued while your PCA is being used to ensure that it is fully effective.

Most women will experience some pelvic pain and may occasionally have a temperature for several days. Painkillers will be prescribed for you. It is usual to remain in hospital for 1 night and the nurse looking after you will discharge you home when you are ready.

You will be asked to attend the hospital for a follow up appointment at 6 months where a vaginal or abdominal scan will be performed to look at the size of your fibroids and assess your symptoms. If you feel unwell before any of your appointments are scheduled or are concerned about your treatment you are advised to contact the gynaecology clinic on the numbers on this leaflet.

Getting Back to Normal

You are free to perform any duties as you may feel able to do and there are no specific restrictions, except for your immediate (24 hours) post

embolisation period. Some women return to normal activities within a few days but for most this takes two weeks. Most patients feel some pain afterwards; you will be given further painkiller tablets to take home with you. Most patients get a slight fever after the procedure. The painkillers you will be given will help control this fever. A few patients get a vaginal discharge afterwards, this may be bloody. This is usually due to the fibroid breaking down. Usually, the discharge persists for approximately two weeks from when it starts, although occasionally it can persist intermittently for several months. This in itself is not a medical problem, although you may need to wear sanitary protection. If the discharge becomes offensive or is associated with a high fever and feeling unwell, there is the possibility of infection and you should contact the ward for advice and possible admission.

Ionising radiation effect

All efforts are taken to minimise radiation dose by minimising the number of radiographic exposure, using the minimum radiation dose for fluoroscopy at all times.

Further information available at:

I. Manyonda, A.-M. Belli, M.-A. Lumsden, J. Moss, W. McKinnon, L.J. Middleton, V. Cheed, O. Wu, F. Sirkeci, J.P. Daniels, and K. McPherson, for the FEMME Collaborative Group* (2020) Uterine-Artery Embolization or Myomectomy for Uterine Fibroids The New England Journal of Medicine 38(5) 440-451

https://www.nejm.org/doi/pdf/10.1056/NEJMoa1914735

https://www.bsir.org/patients/fibroids/#col_right

https://www.rcog.org.uk/globalassets/documents/guidelines/23-12-2013_rcog_rcr_uae.pdf

https://www.nice.org.uk/guidance/ipg367/resources/uterine-artery-embolisation-for-fibroids-pdf-1899867699199429

Important Contact Numbers

Appointments: 02920 746615/746514
Gynaecology Clinic: 02921 841889
Nurse Practitioners Office 02921 841244
Ward C1 02920 743857

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