The Harding Clinic
Fibroids, Prostate & Vascular Care

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Patient information leaflet: Adenomyosis

What is Embolisation?
Embolisation is a minimally invasive method of blocking the blood supply in a particular organ or location. This can be achieved using a number of different materials such as small foam particles, metal coils, polyvinyl alcohol particles (PVA) or hydrogel particles specially designed for the purpose. The Interventional Radiologists performing the procedure have many years of experience of embolisation in different parts of the body for problems such as cancerous growths or emergency treatment to stop bleeding following trauma, stomach ulcers or childbirth. Uterine fibroid embolisation simply applies these skills and techniques in the context of uterine fibroids.

UAE applies the concepts of embolisation to the treatment of uterine fibroids. Fibroids naturally have a very rich arterial blood supply, so injecting particles into the uterine artery means most of the particles go to the fibroids blocking their blood supply. This then makes the fibroids much less prone to bleeding and can cause them to shrink though not disappear. The treatment does not physically remove the fibroids (which does happen with open surgery like myomectomy or hysterectomy) but the fibroids often shrink gradually over a number of months. The main advantage of the procedure is that it is minimally invasive, is performed under local anaesthetic, requires only one night in hospital and allows a more rapid return to normal activities than after surgery.

The Procedure

What is involved before the procedure?

Referral

You may have been referred to us by your GP or Gynaecologist who will have performed an examination and possibly arranged imaging tests such as an ultrasound or MRI scan. If you are not currently under the care of a Gynaecologist, we can recommend one of our Gynaecology colleagues to see you and discuss all your options. We usually meet you ourselves for a clinical consultation at the time of your MRI scan or shortly afterwards to discuss the scan, whether UAE would offer you good treatment and answer any questions you may have.

Although you may already have had an ultrasound scan, it is routine to perform an MRI scan before proceeding to embolisation. MRI very accurately defines the size and location of the fibroids and, more importantly, makes sure other conditions that can mimic fibroids are not present. This first scan also acts as a baseline test to see how well the treatment has worked when compared directly to a further MRI scan 6 months after your procedure. If the MRI scan shows suitability for Embolisation and you wish to go ahead, arrangements will be made for admission for the procedure itself including some routine blood tests to ensure the procedure will be safe.

The Day of the Procedure

On the day of the procedure you will be admitted to the ward by the nursing staff. Please bring all your usual medications with you. It is routine to insert a bladder catheter. This is for your own comfort as you will need to lie flat for several hours after the procedure but also the catheter keeps the bladder empty during the procedure as the dye injected to show the arteries is excreted by the kidneys and ends up in the bladder. Without a catheter in the bladder, the x-ray view of the uterus and uterine arteries can be obscured.

Embolisation is not always painful but pain (much like heavy period pain or early labour pain) is not uncommon since the uterine muscle can be induced to contract along with the fibroids themselves beginning to ‘die’. We always ensure our patients have a Consultant Anaesthetist for the procedure to ensure effective pain control and that patients are as comfortable as possible. They can administer sedative drugs as required to make you sleepy through the procedure. General anaesthesia is not required from a medical point of view and patients usually recover quicker without it. A PCA (patient controlled analgesia) morphine pump is often used which runs through a small drip in the back of your hand and allows you to give yourself small doses of morphine as required. We can also perform a hypogastric nerve block to reduce any pain felt in the pelvis during or after the treatment. This involves passing a thin needle under x-ray guidance during the procedure into a particular location at the back of the pelvis to inject a small volume of local anaesthetic. This then

helps to block nerve transmission of pain signals. This technique has been proven to be safe and effective, usually meaning patients require less painkilling drugs after the procedure. We are very happy to discuss this with you to decide if it is appropriate in your care.

A small drip is placed in a vein in your arm before the procedure starts. The amount of discomfort felt by patients after the procedure varies enormously and the advantage of a PCA pump is that you are in complete control of your painkillers and can use as much or as little as you need. Some patients do not actually need to use the morphine pump but find it reassuring to know it is there if needed. Before arrival in the X-Ray theatre you will be given antibiotic injections and suppositories which help reduce the chance of infection from the procedure.
The procedure itself

Like surgery, the procedure is carried out in a completely sterile manner. Most patients have some sedation to relax and become a little sleepy though this is not essential. Local anaesthetic is injected in the groin. This may sting a little at first but will then go numb. A tiny cut is made at the crease at the top of the leg to access the femoral artery and a very thin tube (catheter) is inserted into the artery. The catheter is then manipulated by your Radiologist through the arteries to the uterus using X-ray imaging. Some X-ray contrast (dye) is injected to show the arteries and act as a 'roadmap'; this can make you feel warm all over. The catheter is advanced well into the uterine artery. Only when a safe position is established are the particles injected to block the arteries supplying the fibroids. The embolisation is continued until there is nearly complete cessation of flow in the uterine artery. Most often the procedure can be completed from only one access point, usually the right groin, however, sometimes for technical reasons it is necessary to access the left groin as well. Usually a plug closure device is used to help prevent bleeding from the arterial access point in the groin. This also assists in enabling patients to mobilse more quickly after the procedure. Occasionally, the Radiologist may need to apply pressure to the groin access point for a short time to assist the device to heal the artery.

After Fibroid Embolisation

Following the embolisation procedure you will be taken back to your hospital room to recover. You will have the morphine pump to control any pain and other painkillers as needed. It is usual to stay for one night in hospital and you should be ready to go home by lunchtime the next day. You can return to your normal activities over the next few days but may experience some tiredness and crampy pain (like severe period pain) for a few weeks. You should not drive for 48 hours and it is advisable to book around a week off work.

The results of published studies suggest that around 80-90% of women who have the procedure experience significant or total relief of pain and other symptoms, with the large majority of patients considerably improved. The procedure is successful even when multiple fibroids are present. Unlike hysterectomy or myomectomy embolisation does not physically remove the fibroids but shrinks them. Well over 50% reduction in volume over 12 months is achievable but the degree of shrinkage is less predictable than the reduction in symptoms.

Follow up

As a matter of routine, we arrange an MRI scan at 6 months to ensure there has been a good imaging response to treatment and contact you directly to let you know the outcome. Dr Harding or your Gynaecologist can of course see you earlier if required and if you have any concerns post procedure you should get in touch to make an earlier appointment.

What are the Possible Complications?

Although UAE is a very safe treatment, any medical procedure carries some risks; it is important to be aware what complications can arise so that early signs of trouble are recognised and treated.

Infection

The most potentially serious complication is infection in the degenerating fibroids or indeed deep inside the uterus though this is rare. This can occur up to several months following the procedure. If you develop a high temperature or foul smelling discharge at any time after the procedure, you should see your GP, Gynaecologist or Radiologist immediately for further advice. A course of antibiotics may be necessary.

Groin issues

The most common complication at the access point is a bruise. Though this is relatively rare and usually minor, it can appear very dramatic. Very rarely, it is possible to damage the groin artery from the access point. If you develop any further groin bleeding or swelling, please contact us urgently or seek urgent medical advice.

Post Embolisation Syndrome

This is a mild condition where the body is dealing with the fibroid tissue embolised in the procedure. It can make you feel a bit washed out like a cold, sometimes with a minor temperature. It is helped by taking regular paracetamol and drinking plenty of water and usually lasts a matter of a few days.
Periods

Your periods can become somewhat unpredictable following the procedure but they usually settle down again after a few cycles. You should use pads rather than tampons for at least 6 months following embolisation to ensure any sloughed material from the uterine lining can pass out of the body.

Vaginal Discharge

It is possible to have a vaginal discharge and/or a small amount of bleeding for a few weeks after the procedure. If you feel otherwise well, this is not a cause for alarm. It can reflect dead fibroid tissue being expelled from the womb and usually settles down in time. Occasionally solid lumps of fibroid tissue may be passed; this is not a cause for concern. Any discharge more commonly appears as whitish stringy material that may be mixed with blood clot at the time of your period. This is also not a concern.

Missed Malignancy

Although fibroids are benign (non-cancerous) growths, very rare cases of fibroids naturally converting to uterine sarcoma have been reported. This is a form of uterine cancer. Such cases are exceedingly rare and hysterectomy would then be indicated. Whilst a very unlikely occurrence, this is another reason not to miss your follow up MRI scan and report any change or worsening in your symptoms.

Ovarian Failure

The artery to the ovary can be a branch of or communicate with the uterine artery. If particles enter the ovarian artery during the procedure it is possible to cause early menopause. This is a very small risk as all care is taken during the embolisation to prevent particles being injected in the wrong place or protect non-target vessels to ensure they are not affected.
Issues from radiological contrast and X-rays
Modern X-ray contrast used in the procedure is the most commonly used drug in Medicine and one of the safest. It needs to be used with caution in patients with poor kidney function or those on certain drugs. This will be identified in advance. Clearly the procedure requires patient exposure to ionising radiation but the radiation exposure will be kept to the absolute minimum required to complete the procedure safely and the one off dose required is most unlikely to lead to any issue.

Pregnancy after UAE

Some women with infertility due to large fibroids choose embolisation as an alternative to hysterectomy in order to preserve fertility and keep their options open. It is not, however, advisable to become pregnant within 12 months of the procedure as the fibroids are still breaking down. If this is a consideration for you, please discuss further with Dr Harding or your Gynaecologist to ensure the best advice and decisions. Generally, it is less advisable to carry a pregnancy after UAE but successful pregnancies have been and continue to be reported.

The official UK guidelines from the Royal College of Radiologists and Royal College of Obstetricians and Gynaecologists Joint Working Party (November 2000) recommended that women undergoing uterine fibroid embolisation should be advised not to try and conceive due to theoretical adverse effects on the embryo. These early recommendations were perhaps over-cautious. Most of the major centres around the world performing UAE now have patients who have had normal pregnancies following embolisation although there is probably a higher risk of requiring a caesarean delivery. There is still much ongoing research and data collection in this area and if fertility is a particular concern, please discuss these matters with Dr Harding and/or your Gynaecologist.