Patient information

Fistulogram/Fistuloplasty

Imaging Department

Your Consultant / Doctor has advised you to have a fistuloplasty.

What is a Fistula?

People who suffer from chronic renal (kidney) failure may require haemodialysis to remove waste products from their blood. The best method of providing haemodialysis is via a fistula. This is formed by joining an artery to a vein. A well-functioning fistula has a bruit (a pulse that you can hear), a thrill (a pulse that can be felt) and good blood flow.

The fistula is used regularly and over time may develop problems such as scarring or clots which can decrease the function of the fistula and if untreated can block the fistula.

Should problems such as clots or scarring happen to your fistula an appointment will be made for you to attend for an ultrasound scan of your fistula and if a narrowing or blockage is found a fistulogram/ or fistuloplasty may be needed to further assess it.

What is a Fistulogram?

A fistulogram is an X-ray study of a fistula using contrast dye. During a fistulogram, you will lie awake on an exam table. The fistula is cleaned and then an injection of local anaesthetic is given to numb the area. A needle is then placed in your fistula and a wire is put inside the needle. The wire is left in your fistula and the needle is removed, allowing a small plastic tube (sheath) to be placed over the wire and into the fistula. Catheters (a thinner plastic tube) can then be passed over the wire.

Contrast dye is injected through the catheter while X-rays are taken in rapid sequence. This allows the doctors to see how the vein and artery in the fistula are shaped. If nothing is wrong, the catheter is removed, the puncture wound pressed on for a few minutes to stop the bleeding, after which you can go home.

What is a **Fistuloplasty?**

If there is a narrowed area, the catheter is exchanged for a special catheter which has a balloon on its tip. The catheter is advanced in to the area of narrowing and then the balloon is inflated.

This balloon inside the fistula expands and therefore expands the area of narrowing in your fistula. This expansion of the vessel with the balloon is called a fistuloplasty.

After the fistuloplasty, another fistulogram is done to see what has happened to the narrowing. In some cases, the narrowing may be expanded a few times. On rare occasions, a stent (a small metal-mesh tube) needs to be placed to hold the area of narrowing open.

What are the benefits of having fistuloplasty?

The benefits of the fistuloplasty are stretching the narrowing within the fistula before problems develop with the dialysis or the fistula blocks altogether.

What are the risks of having fistuloplasty?

- The X-ray dye used can cause an allergic reaction. You should tell your doctor/nurse if you have a history of **allergy** or **asthma** and if you are allergic to antiseptics such as **iodine**

- The X-ray dye used can occasionally cause kidney damage. This is not an issue if you have already started dialysing. However, if your kidneys are still functioning and you haven't started dialysis then you will be started on a drip and given fluid before and after the procedure which protects your kidneys.

- Like all medicines, local anaesthetics may sometimes cause side effects, as well as the effects that are needed. You may experience dizziness, blurred vision, drowsiness and occasionally loss of consciousness. Minor discomfort if the local anesthetic does not completely numb the area and/or an allergic reaction to the drug used in the local anesthetic.

- Serious side effects are rare, and include fits, low blood pressure, slowed breathing and changes in heartbeat, which may be life-threatening. If you have any concerns about any of these effects, you should discuss them with your doctor.

- There is also minor discomfort when the balloon is inflated which lasts between five to ten seconds.

- An injury to your fistula from placement of the catheter, causing bleeding or a blockage of the fistula.

- Surgery to correct damage caused by the procedure.

- An infection from the puncture site.

If you are worried about any of these risks, please speak to your Consultant or a member of their team.

Are there any alternative treatments available?

The alternatives are to do nothing in which case our experience tells us the fistula is likely to block off. Some of the narrowings may be amenable to surgical repair (but not all) which would involve a more complex procedure than a fistuloplasty with higher complication rate. The third option would be to have a new fistula made surgically.

What will happen if I decide not to have treatment?

It is your absolute right to refuse any treatment and this will not affect your medical management. If you decide not to have angioplasty then we will inform the clinical team who referred you and they will organise to see you in clinic and discuss alternative therapies.

Getting ready for your Fistuloplasty?

Tell your doctor in the Dialysis Unit if you are taking Warfarin (blood thinner) and why you are taking this medication. You will need to stop taking it a few days before the procedure.

You may need to have blood taken a few days before the fistulogram. The doctor will order these blood tests for you.

Please leave all cash and valuables at home. If you need to bring valuables into hospital, these can be sent to General Office for safekeeping. General Office is open between 8.30am and 4.30pm Monday to Friday. Therefore, if you are discharged outside these times we will not be able to return your property until General Office is open. The Trust does not accept responsibility for items not handed in for safekeeping.

The day of your Fistuloplasty

The exact technique may vary slightly but the general outline of the procedure is as follows.

You may need to have a needle put into a vein in your arm, so the radiologist can give you fluids or other drugs if required. Once in place, this will not cause any pain.

You will lie on the X-ray table, generally flat on your back. You may also have a monitoring device attached to your chest and finger, and may be given oxygen through small tubes in your nose.

The radiologist will keep everything as sterile as possible, and will wear a theatre gown and operating gloves. The fistula area will be cleaned with antiseptic, and then most of the rest of your body covered with a theatre towel.

The skin around the fistula will be anaesthetised with local anaesthetic, and then a needle will be inserted into the fistula. Once the radiologist is satisfied this is correctly positioned, a guide wire is placed through the needle, and into the fistula. Then the needle is withdrawn allowing a small plastic tube (sheath) to be placed over the wire and into the fistula. A catheter can then be guided in to place over the wire

The radiologist will use the X-ray equipment to make sure the catheter and the wire are moved into the right position, very close to the narrowed area in your fistula. Then the wire and the catheter will be moved so they pass into the narrowed area, and the balloon is then inflated. This may need to be done a few times in order for the narrowed area to open up sufficiently to improve the blood flow.

The radiologist will check progress by injecting contrast medium down the catheter to show how much the narrowing in the fistula has opened up. When he or she is satisfied that a good result has been obtained, the balloon is deflated and the catheter is removed. The radiologist will then press firmly on the skin entry point until bleeding stops.

You will be either kept in the theatre day case area or be taken back to your ward on a trolley. Nurses will carry out routine observations, such as taking your pulse and blood pressure, to make sure there are no problems. They will also look at the skin entry point to make sure there is no bleeding from it. You will be allowed to go home after approximately two hours (unless you require fluids via a drip after the procedure which will take six hours)

Discharge Information

You should not drive home yourself but make arrangements for someone to collect you from Interventional Theatres.

The rest of the day should be spent resting.

You should have someone with you overnight.

Easy access to a telephone is essential.

A small amount of bruising around puncture site is normal. If you notice any bleeding or swelling around the puncture site apply some direct pressure. If this has little or no effect you must return immediately to the A&E department.

Getting back to normal

You may drive after 24 hours. You may resume normal activities the next day**.**

Further Appointments

A follow up appointment for ultrasound approximately four weeks after the procedure will be sent to you.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further Information

If you have any queries or problems between 9.00am -5.00pm Monday– Friday please ring us on:
Tel: 0151 706 2744
Text phone number: 18001 0151 706 2744

http://www.bsir.org/

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All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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