Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

Undergoing Angioplasty

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Undergoing a Peripheral Angioplasty

Patient Information

X-Ray Department

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Introduction

This leaflet tells you about the procedure known as peripheral angioplasty. It explains what is involved and what the possible risks are. It is not meant to replace an informed discussion between you and your doctor; however, it can act as a starting point for such a discussion.

As you are having the angioplasty as a planned procedure, you should have had sufficient explanation before you sign the consent form**.**

The Radiology Department may also be called the X-ray or Imaging Department. It is the facility in the hospital where Radiological examinations of patients are carried out, using a range of imaging equipment, such as a computed tomography (CT) scanner, an ultrasound machine, or a magnetic resonance (MR) imaging scanner.

Radiologists are doctors specially trained to interpret the images and carry out more complex examinations. They are supported by Radiographers who are highly trained to carry out X-rays and other imaging procedures.

What is peripheral angioplasty?

Peripheral angioplasty is a way of relieving a blockage in an artery, usually in the lower limbs, without having an operation. A fine plastic tube called a catheter, is inserted through a blockage in the artery, and a special balloon on the catheter is then inflated, to open up the blockage and allow more blood to flow through it.

Why do I need a peripheral angioplasty?

There are a number of reasons why you may require a peripheral angioplasty, for example you may have pain in your legs, usually the calf or thigh, or you have had a CT or ultrasound scan which has shown a blockage in the arteries of your legs.

Who has made the decision?

The Vascular Surgeon and the Radiologist will have discussed the situation and feel that this is the best treatment option. However, you will also have the opportunity for your opinion to be considered, and if, after discussion with your doctors, you do not want the procedure carried out, you can decide against it.

Who will be doing the angioplasty?

A Radiologist, who specialises in vascular intervention. These Radiologists have special expertise in using X-ray equipment, and interpreting the images produced to perform the angioplasty. They will look at these images while carrying out the procedure. Radiology Nurses and Radiographers will assist the Radiologist during the procedure.

Where will the procedure take place?

The procedure will take place in the X-ray Department, in a room adapted for specialist procedures. This is usually a day case procedure.

How do I prepare for a peripheral angioplasty?

You will be asked to attend a preoperative assessment approximately 1-2 weeks before your procedure. This is where we can gain more information about you, discuss your medication and answer your questions.

You will be advised to continue taking your normal medication even on the morning of your admission, that is unless they belong to one of the groups of medication listed below:

1. Diuretics or "water tablets". - if your angioplasty is scheduled for the morning, it may be better if you leave them till after the angioplasty.

2. Anticoagulants (Warfarin / Apixaban / Rivaroxaban / Edoxaban).

3. Diabetic medications (Insulin injections or diabetic tablets)

You will be given instructions about the above medication at your preoperative assessment appointment.

On the day of the procedure,

- you will have been asked to fast, usually from midnight the previous night
- you will be asked to put on a hospital gown

- a small tube called a cannula will be inserted into your arm and a blood sample will be taken

If you have any allergies, you **MUST** let your doctor know. If you have previously reacted to intravenous contrast (the dye used for tests like CT scans), then you must also tell your doctor about this.

What actually happens during an angioplasty?

You will lie on the x-ray table, flat on your back. During your procedure, a Radiology Nurse will place stickers on your chest and connect you to an electrocardiogram (ECG) machine (heart monitor). Your blood pressure will be checked every ten minutes and your pulse and oxygen levels will be continuously monitored throughout the procedure.

The Radiologist will wear a sterile theatre gown and gloves. The procedure is generally carried out using the big artery in the groin. The skin in your groin will be cleaned with antiseptic, and then you will be covered with a large theatre towel.

The skin and deeper tissues over the artery will be anaesthetised with the local anaesthetic, a needle will then be inserted into the artery. Once the Radiologist is satisfied that this is correctly positioned, a guide wire is placed through the needle, and into the artery. The needle is then withdrawn, allowing a fine, plastic tube called a catheter to be placed over the wire and into the artery.

The Radiologist uses the X-ray equipment to make sure that the catheter and the wire are moved so that they pass into the narrowed area, a balloon is then inflated to stretch the artery. This may need to be done several times for the narrowed area to open up sufficiently to improve the blood flow.

The Radiologist will inject contrast dye down the catheter to show how much the narrowed artery has opened up. When they are satisfied that a good result has been obtained, the balloon is deflated, and the catheter is removed. A sealing device called an Angioseal is then normally placed in the artery at the puncture site to close the small arterial opening. With this in place, you can usually start moving approximately 30 minutes after completion of the procedure.

Will it hurt?

Some discomfort may be felt in the skin and deeper tissues during injection of the local anaesthetic and in the leg when the balloon is inflated. Other than this, the procedure should not be painful. There will be a Radiology Nurse, or another member of clinical staff, standing next to you and looking after you.

You will be awake during the procedure and be able to tell the staff if you feel any pain or become uncomfortable in any other way.

As the contrast, passes around your body, you may get a warm feeling, which some people can find a little unpleasant; however, this feeling soon passes.

How long will it take?

Every patient’s situation is different, and it is not always easy to predict how complex or how straightforward the procedure will be. As a guide, expect to be in the X-ray Department for at least 2 hours.

What happens afterwards?

You will be taken back to the day-case unit, usually the Surgical Assessment Lounge (SAL), on a trolley. Nurses on the ward will carry out routine observations, such as taking your pulse and blood pressure, to make sure that there are no problems. They will also look at the skin entry point to make sure there is no bleeding from it. You will stay flat for 30 minutes. After that, you can walk about. The usual recovery time is 4 hours, then you can go home. You MUST have someone at home with you overnight as a precaution.

Most patients will be given medication to improve blood flow in their arteries, and to try and limit the chance of a similar condition occurring again.

Are there any risks or complications?

Angioplasty is a safe procedure, but there are some risks and complications that can arise. There may be a small bruise around the site where the needle has been inserted; this is quite normal. There is a chance that the bruise may become very large and uncomfortable, but this does not happen very often. Very rarely, a large bruise is treated by having a small operation to drain it.

There is a risk of infection; if this occurs, then it would require treatment with antibiotics.

Very rarely, damage can be caused to the artery by the catheter or the balloon. This may need to be treated by surgery or another radiological procedure.

Sometimes it is not possible to manoeuvre the wire through the blockage, and on occasion, despite inflating the balloon several times, the narrowing may be so severe that it does not open up as much as anticipated.

As with any mechanical device, there is also the possibility that the balloon and / or Angioseal may fail to work properly. This may require you to stay overnight in the hospital or require transfer to the Vascular Unit at the Royal Preston Hospital.

Despite these possible complications, the procedure is normally very safe and is carried out with no significant side effects at all.

When will you get the results?

A written report on the findings of your angioplasty will be sent to your referring doctor.

Finally

Some of your questions should have been answered by this leaflet but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure before you sign the consent form.

All patients who have this vascular procedure are recorded on the National Vascular Registry. This audits the care and reports on the process and outcomes of care. If you do not wish for your details to be recorded on the registry, please speak to your Vascular Surgeon or the Radiologist performing the procedure.

Contact

The X-ray Department can be contacted directly on (01942) 778713, or via the hospital switchboard on (01942) 244000 and ask for the X-ray Department.

Acknowledgments

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This leaflet has been approved by the British Society of Interventional Radiology (BSIR) and the Clinical Radiology Patients' Liaison Group (CRPLG) of The Royal College of Radiologists. 25th February 2020.



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