Patient Information - Angioplasty and Stent

Patient information leaflet on Angioplasty & Stent from Vascular Society Website
http://www.vascularsociety.org.uk/patient/ang_stent.html

'The information contained in this patient information sheet is not a substitute for medical advice or treatment, and the Society recommends consultation with your doctor or health care professional'

***Angioplasty/stenting* is a procedure to treat narrowing or blockage of a blood vessel (artery). This uses either a balloon to stretch the artery (angioplasty) or metal scaffold to hold the artery open (stent).**

The information in this leaflet is intended to help you understand

- What the procedure involves
- The potential benefits and risks of the procedure

After reading this you may find that you wish to ask some questions about the procedure. It is often helpful to make a list of any further questions you would like to ask and bring this with you when you come to the hospital.

1. Why do I need a peripheral angioplasty/stent?

Patients who have been referred for this procedure generally have **symptoms due to narrowing or blockage of the arteries**.

The **purpose of the procedure** is to improve the blood flow to help relieve any symptoms you are experiencing.

You will have seen a vascular surgeon (specialist in the treatment of diseases of blood vessels) who has referred you for this procedure.

2. What does the procedure involve?

The procedure is performed in the Vascular X-ray department by a radiologist (x-ray doctor). **Local anaesthetic** is used to numb the skin and a small tube is placed in the artery in the groin, this is the only uncomfortable part of the procedure. Occasionally, it may not be possible to use the groin artery, in which case the artery in the elbow is used. A series of pictures are then taken of the arteries by injecting x-ray dye (**contrast**) into the tube. The contrast will give you a warm feeling each time it is injected and may give you the feeling of passing water. Do not be alarmed, this is normal. Under x-ray guidance a fine wire and tube are passed through the narrowing or blockage in the artery. A special tube with a balloon on the end of it is passed across the narrowing or blockage and the artery is then stretched by inflating the balloon. The balloon is then deflated and removed from the artery. Further pictures are taken to check if the angioplasty has been successful. The angioplasty may need to be repeated. If the angioplasty fails to improve the blood flow then, in certain instances, a metal scaffold (stent) can be placed in the artery. Once the stent is in place it cannot be removed and will eventually become covered by the lining of the artery.

3. Do I need to come into hospital for the procedure?

The procedure is usually performed as an inpatient. You will be asked to come directly to the ward the day before, or on the morning of the procedure and will **need to stay in overnight**.

4. How long does it take?

The procedure generally takes **about 30-45 minutes** to perform. At the end of the procedure the tube will be removed and the doctor or nurse will press over the puncture site in the groin or elbow for 10 minutes until the artery stops bleeding.

5. What happens after the procedure?

Once the bleeding has stopped you will need to remain flat in bed for an hour and then be allowed to sit up. A nurse will escort you back to the ward after the procedure. It is important for you to lie relatively still during this time to prevent the artery from bleeding again.

In some cases, the radiologist will place a special 'plug' over the hole in the artery at the end of the procedure to stop the bleeding. If this is the case, further puncture of that particular artery should not be performed for 3 months.

6. Are there any risks with the procedure?

There are potential complications associated with every procedure. The overall risk of the procedure is **extremely low**. The potential risks can be divided into the following categories:

i). At the puncture site

- Some **bruising** is common after an artery puncture.
- Very rarely significant **bleeding** from the artery or **blockage** of the artery can occur which may require a small operation. **The risk of requiring an operation is less than 1%**

ii). Related to the contrast

- Some patients experience an **allergic reaction** to the X-ray contrast. In most cases this is minor but very rarely (1 in 3000) a reaction may be severe and require urgent treatment with medicines.
- The x-ray contrast can, in some patients, affect the **kidney function**. If you are likely to be at risk of this, special precautions will be taken to reduce the chances of this problem occurring. If you are a diabetic on **Metformin** tablets, you should not take this on the day of the procedure and for 48 hours after the procedure.

iii). Related to the treatment

- **Vessel blockage** can occur after angioplasty of a narrowed artery. It can sometimes be treated with a stent.
- **Vessel rupture** following angioplasty occurs infrequently. This can sometimes be treated in the x-ray department by putting a stent with a covering around it (stent-graft) into the artery to seal the tear. If this is not possible, an urgent operation may be required to repair the artery.
- Small fragments from the lining of the artery can occasionally break off and lodge in an artery below the angioplasty site (**distal embolisation**). This may also require an operation to 'fish out' the fragment if it is causing a problem with the blood flow.

The overall risk of requiring an operation is low (1-2%)

iv). Other complications

- If the artery in the elbow is used, the tube will pass one or more of the arteries supplying the brain. There is a very small risk that a blood clot could form and cause a stroke (1-2%).

7. How successful is angioplasty and stenting?

Angioplasty/stenting is successful in treating the narrowing/blockage of the artery in the vast majority of patients (90-95%). In the small number of patients in whom the procedure is unsuccessful, a surgical bypass operation may be offered as an alternative.

8. What happens next?

You will be sent an appointment for the **pre-clerking clinic** where specialist nurses will assess you a few weeks before you have the procedure to check that you are fit enough to have it and to take some blood for routine tests. This will also give you the opportunity to ask any further questions you may have.

9. Is there anything I can do to help?

You cannot do anything to relieve the actual narrowing or blockage. However, you can improve your general health by taking regular exercise, stopping smoking and reducing the fat in your diet. These actions will help slow down the hardening of the arteries which caused the problem in the first place and may avoid the need for further treatment in the future