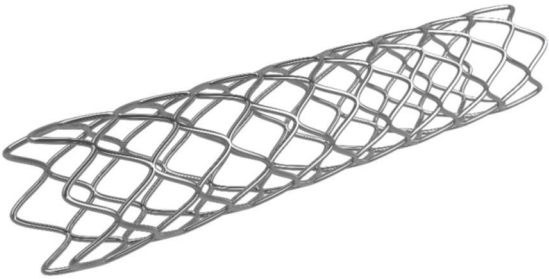
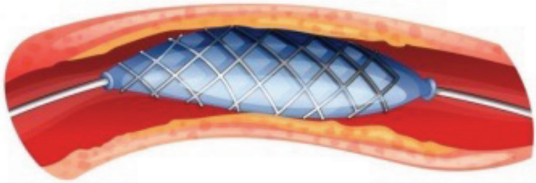
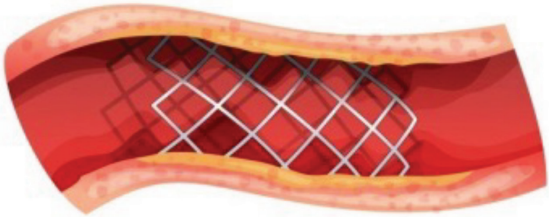
ANGIOPLASTY AND VASCULAR STENTING

ParkwayHealth™ Radiology

Angioplasty and Vascular Stenting







ANGIOPLASTY AND VASCULAR STENTING

This brochure will provide you with essential information about having an angioplasty and vascular stenting. It explains briefly what is involved, its benefits over other forms of treatment and some of the more salient risks. It is not meant to replace an informed discussion between you and your referring doctor or interventional radiologist who will be performing the procedure. If you have any questions regarding the procedure, do not hesitate to ask your referring doctor or the interventional radiology staff.

What is angioplasty?

Angioplasty is a way of relieving a narrowing or blockage in a blood vessel through a skin puncture, without having an operation. A thin tube called a catheter is inserted into the artery and under real-time X-ray (fluoroscopy) guidance, passed through the narrowed or blocked segment of the blood vessel. A special balloon on the end of the catheter is placed across the narrowing or blockage. This balloon is then inflated to open the vessel, deflated and removed.

What is a stent?

A stent is a special device made of a metal mesh which is placed permanently across a narrowing or blockage, to keep the artery open.

Reason for angioplasty and stenting

Your referring doctor has identified that there is narrowing or blockage in one or more blood vessels which is causing you a problem as a result of poor blood flow. For example, this may occur in the limb arteries, renal arteries, coronary arteries and the carotid arteries. Venous narrowing may also be treated in this manner.

Preparation for the procedure

A blood test may be required to test for any blood clotting problems.

If you are on any medication, kindly inform your referring doctor and the Radiology Department of this. If you are currently taking any blood thinners, this may have to be stopped for 3-5 days prior to the procedure. Your referring doctor will advise you on this. Similarly, diabetic medication may have to be halted until after the procedure as fasting may be required for the procedure.

In general, fasting 4-6 hours prior to the procedure is recommended. This is especially so if sedation or general anaesthesia is required.

Arrive early at the hospital as time is often required for registration, admission and other administrative details. Please arrive at least 4 hours before the procedure time. For early morning cases, admission the night before may be required.

What happens during angioplasty and stenting?

The procedure is performed in the Angiography suite, in the Radiology Department by a specialist, such as an Interventional Radiologist or a Vascular Surgeon. This procedure is performed under sterile conditions, with local anaesthesia which will be given to the entry point into the blood vessel. This is usually the femoral artery or vein in the groin. Other entry points are the in the wrist or just above the elbow, depending on where the blockage in the blood vessel is located. Occasionally, the procedure may be performed under conscious sedation or even general anaesthesia. This will be provided by an anesthetist who, in addition to sedating you, will also monitor your vital signs and breathing to ensure your stability and comfort throughout the procedure.

Through the skin puncture site, the catheter with a guidewire will be inserted. Under fluoroscopy, the catheter is maneuvered to the site of narrowing. X-ray contrast media will be injected and an angiogram will be performed to study the blood vessels and the narrowing. The narrowed portion will then be crossed with the guidewire, followed by the balloon-tipped catheter. This will then be inflated and deflated. An angiogram will be performed following this, to determine how much the blood flow has improved. A stent may be inserted to help keep the treated portion of the blood vessel open.

At the end of the procedure, the catheter and wire will be removed and pressure applied to the puncture site to stop any bleeding. Sometimes a special device may be used to close the hole in the blood vessel.

After the procedure

Once the bleeding at the puncture site has stopped, a pressure bandage will be applied. After a period of monitoring in the recovery area, you will be transferred back to your room for further monitoring. Strict bed rest for at least 6 hours is required. You will have to spend at least one day for observation.

After you return home, avoid lifting heavy objects and strenuous exercise for at least 24 hours. If bleeding begins at the puncture site, lie down and apply pressure to the site and call your referring doctor. Any change in colour in your leg, pain or a warm feeling in the area where the catheter was inserted should be reported to your doctor.

Benefits and Risk

BENEFITS

- Compared to surgery such as bypass surgery, angioplasty and stenting is minimally invasive procedure with lower risks.
- Usually performed under local anaesthesia. General anaesthesia is usually not required.
- Faster recovery time

RISKS

Overall, the risks are low. Below is a list of some of the more salient risks.

- Any procedure which involves placement of a catheter inside a blood vessel carries certain risks. These include damage to the blood vessel, bruising or bleeding at the puncture site and infection. In most cases, bleeding and bruising is mild but occasionally, transfusion and further intervention may be required to stop the bleeding or evacuate a large blood clot.
- When the narrowed portion of the blood vessel is crossed and ballooned, some of the plaque may break off and block smaller vessels downstream. Rarely, the ballooned portion may close down abruptly due to damage of the wall of the blood vessel. This may require stenting or even urgent surgery.
- Injury to the tissue supplied by the treated blood vessels as a result of sudden blockage may result in heart attack, stroke, gangrene of the foot and kidney failure.
- Vessel rupture and significant bleeding
- Renal failure as a result of use of contrast media
- Contrast allergy

In any procedure, there are risks, including death, which are rare and unpredictable. It is not possible to list every single risk. Any of these potential complications, both listed and not listed above, may require further surgical or interventional procedures for treatment.

Limitations of angioplasty and stenting

This is just one way to treat narrowed or blocked vessels. Alternatives such as surgery may be discussed with your referring doctor.

This procedure treats the narrowed portion of the blood vessel but it does not treat the underlying cause of the narrowing. The most common cause of this is atherosclerosis. Treatment of atherosclerosis includes lifestyle and dietary changes, exercise, not smoking and even long term medication, especially in patients with underlying diabetes mellitus, high blood pressure and high cholesterol. These should be discussed with your referring doctor.

There is a recurrence rate of the narrowing, despite successful angioplasty and stenting and the procedure may have to be repeated.

In the limbs, when multiple small blood vessels are involved, the success rates are lower.

I confirm that I understand the information herein about Angioplasty and Vascular Stenting as it has been read by me and / or explained to me.

Name: _____

*Passport/NRIC No: _____

Signature: _____

Date: _____

Confirmation given before (Staff's name): _____

Staff's Signature: _____

Date: _____

*Please delete as applicable

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