



Procedure Information Sheet

Introduction

Percutaneous coronary intervention (PCI) is an invasive procedure subsequent to coronary angiogram, used to dilate and maintain patency for any narrowing of the coronary arteries (arteries that supply blood to substantial heart muscle). This procedure is performed with the use of X-ray, through percutaneous method (commonly through femoral or radial arteries).

Indication

The procedure may follow coronary angiogram simultaneously. Coronary intervention serves to open up the artery and improve the heart function. In emergency situation caused by acute coronary syndrome (heart attack), this procedure is essential and can be life-saving.

The Operation / Procedure

1. This is an invasive procedure that is performed under local anesthesia in a cardiac catheterization centre.
2. Electrodes are adhered to the chest to monitor the heart rate and rhythm. Blood oxygen monitor through finger tip will be set up. Measurement of blood pressure from arm will be taken during the examination.
3. A small wound is made either from the groin or the arm for access to arteries or veins. Catheters are advanced to the heart under X-ray guidance.
4. Pressures within the heart are measured.
5. Contrast is injected and films are taken. Narrowing in the coronary arteries is identified.
6. In general, a special catheter is placed in a coronary artery with narrowing. A guide wire is passed through the narrowing. The guide wire is used as a track to allow a balloon to go to the narrowing. The balloon is inflated to open up the artery. A stent is then deployed permanently inside the artery to keep it patent.
7. Other techniques may be adopted to improve the success and outcome of the procedures. Please discuss with doctor the procedure involved as new advance in PCI cannot be fully discussed in this leaflet.
8. During the procedure, patient will be asked to hold breath or cough. Transient chest pain may be experienced during balloon dilatation. If experience severe or persistent chest pain, dizzy spell or any discomfort, patient is required to inform the staff.

Before the Operation / Procedure

1. Some preliminary tests including electrocardiogram, chest X-ray, and blood tests will be done in ward or clinic. Allergy history will also be checked. These can be performed days before the procedure or on the day of admission.
2. Doctor will explain the procedure and its risks, and present this information sheet. Patient has to sign an informed consent.
3. Blood thinning drugs or Metformin (for diabetes) may have to be stopped several days before the procedure. Special anti-platelet drug should be taken before the intervention. Steroid will be given if there is history of allergy.
4. Fasting of 4-6 hours is required prior to the procedure. An intravenous drip will be set up. Shaving may be required over the puncture site.
5. If patient is a female, please provide last menstrual period (LMP) and avoid pregnancy before the procedure as this procedure involves exposure to radiation.

Patient's Label

Patient Name: _____

Hospital No: _____

Episode No: _____



After the Operation / Procedure

1. After the procedure, catheters will be removed. The wound site will be compressed or sutured to stop bleeding.
2. Nursing staff will check blood pressure, pulse and wound regularly.
3. Bed rest may be necessary for 4 hours. In particular, please do not move or bend the affected limb. Whenever cough or sneeze, please apply pressure on the wound with hand.
4. Should inform nurse if any discomfort in particularly chest discomfort or find blood oozing from the wound site.
5. Once diet is resumed, please take more fluid to help eliminate contrast by passing urine.
6. Usually you can be discharged 1 day after the procedure. The wound will be inspected and covered with light dressing. Please keep the wound site clean and change dressing if wet. In general, showers are allowed after 2 days.
7. Please avoid vigorous activities (household or exercise) in the first 3 days after the procedure. Bruising around the wound site is common and usually subsides 2-3 weeks later. If notice any signs of infection, increase in swelling or pain over the wound, please come back to the hospital immediately.

Risk and Complications

1. The procedure carries certain risks which vary according to patient factors, lesion factors and clinical circumstances. For instance, PCI in high risk clinical situation like heart attack with shock (unstable blood pressure and rhythm) is associated with higher risk but successful PCI can be life saving. Please consult your doctor for individual assessment.
2. Major complications include death (0.4-1.9%), heart attack (0.4-4.9%), stroke (0.1%) and emergency bypass surgery (0.4%).
3. Other major complications include coronary artery perforation, heart failure, arrhythmias, vascular complications, contrast related anaphylaxis, acute renal failure.
4. Minor complications include contrast allergy, nausea, or groin complications. Bruising around the wound site is common.
5. Re-narrowing of the dilated or stented coronary lesion might occur in 5-40% of the cases a few months after the procedure. The rate varies according to many different factors. The use of different types of stents is an example.

Alternative Treatment / Investigation

Alternative modalities include bypass surgery and medical treatment.

Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference

Smart Patient Website by Hospital Authority: Percutaneous Coronary Intervention (4/2019)

Patient's Signature: _____ Date: _____

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