仁安醫院
UNION HOSPITAL

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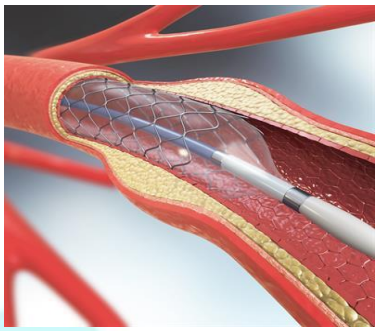
Operation Information

Percutaneous Coronary Intervention (PCI)

Introduction

Percutaneous coronary intervention (PCI) is used to dilate and maintain patency for any narrowing of the coronary arteries (arteries that supply blood to the heart muscle). The operation is performed through percutaneous method (commonly through femoral or radial arteries), with the use of X-ray and dye (Contrast).



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PCI is an invasive operation subsequent to coronary angiogram. Coronary angiogram provides a clear picture of the severity of narrowing of coronary arteries. PCI may follow a coronary angiogram at the same setting if severe narrowing of coronary arteries is identified. Alternative modalities include bypass surgery and medical treatment. Please consult the doctor for further details.

Outcomes

PCI serves to open up the artery and improve the blood supply to the heart muscles. In an emergency situation caused by an acute myocardial infarction, the operation is the treatment of first choice.

Procedures

1. This invasive operation will be performed under local anaesthesia in a cardiac catheterization centre. You will be alert during the operation, but doctor may give the sedation to relieve your anxiety.
2. Electrodes will be adhered to the chest to monitor the heart rate and rhythm. Blood oxygen monitor through the finger tip will be set up. Blood pressure from the arm will be measured during the operation.
3. A small wound will be made either from the wrist or groin for access to the arteries. Catheters will be advanced to the heart under X-ray guidance.
4. Contrast will be injected and films will be taken. Blockage in the coronary arteries will then be identified.
5. A guide wire will be passed through the narrowing. The guide wire will be used as a track to allow a balloon to go to the blockage. The balloon will be inflated to open up the artery.
6. A stent will then be usually deployed permanently inside the artery to keep it patent.
7. Other techniques may be adopted to improve the success and outcome of the operation according to the situation.
8. During the operation, you may be asked to take shallow breaths and avoid coughing. You may experience a hot flush when contrast is injected, this is a normal reaction.
9. Transient chest pain may be experienced during balloon dilatation. Inform the doctor if you experience severe chest pain, dizzy spell or any discomfort.

Possible Risks & Complications

1. **Mild**
   - Allergy to contrast (dye) or medication (e.g. nausea, rash and itchiness etc.)
   - Wound complication (e.g. bleeding and haematoma etc.)
2. **Severe**
   - Arrhythmias
   - Vascular damage
   - Renal failure
   - Heart attack (0.4-4.9%)
   - Stroke (0.1%)
   - Emergency bypass surgery (0.4%)
   - Aortic dissection
   - Anaphylactic reaction to contrast
   - Death (0.4-1.9%)

** The risks listed above are in general terms and the possibility of complications is not exhaustive. Please understand that even though all operations are carried out with utmost professionalism and care, this does not rule out the possibility of complications arising. In the event of peripheral organ damage or post-operative haemorrhage or vessel perforation, further operations may be required.

Pre-operative Preparations

1. Good hygiene can prevent surgical wound infection. Therefore, we advise you to clean up yourself on the day of the operation.
2. You may have some preliminary tests including electrocardiogram, echocardiogram, chest X-ray and blood tests before the operation if needed.
3. The procedure and possible complications will be explained by the doctor and a consent form must be signed prior to the operation.
4. Please inform the doctor and nurse all your past medical history, previous surgical operations, current medication and any complication with drug or anaesthesia.
5. Blood thinner medications or Metformin (for diabetes) may have to be stopped several days before the operation as doctor's instruction. Steroid will be given if there is history of allergy. Special anti-platelet drug (e.g., Plavix) should be taken before the operation.
6. No food or drink four to six hours before the operation. An intravenous drip may be set up. Shaving may be required over the puncture site.
7. If you are a female, please provide the last menstrual period (LMP) and avoid pregnancy before the operation as this operation involves radiation exposure.
8. Please change into a surgical gown after removing all belongings including undergarments, dentures, jewellery and contact lenses.
9. Please empty your bladder before the operation.

Post-operative Instructions

1. After the operation, the catheters will be removed. The wound site will be compressed or sutured to stop bleeding.
2. The blood pressure, pulse and wound will be monitored regularly by nursing staff.
3. Bed rest may be necessary up to 24 hours. In particular, please do not move or bend the affected limb. Whenever you cough or sneeze, please apply pressure to the wound with the hand.
4. Please inform the nursing staff if any discomfort in particularly chest discomfort or find blood oozing from the wound site.
5. Once the diet is resumed, please take more fluid to help eliminate contrast by passing urine if not contraindicated.
6. Usually, you can be discharged 1 – 2 day(s) after the operation.

Advice on Discharge

1. Immediately consult your doctor or return to the hospital for professional attention in the event of severe wound pain, increase redness, tenderness, pus or blood oozing from wound, any signs of infection, shivering, high fever over 38°C or 100.4°F, or any other unusual symptoms etc.
2. The wound will be inspected and covered with light dressing before discharge. In general, showers are allowed after 2 days. The wound should be kept clean and dry after showers and the dressing should be changed immediately if wet.
3. Vigorous activities (household or exercise) should be avoided in the first few days after the operation.
4. Bruising around the wound site is common and usually subsides 2 – 3 weeks later.
5. It is very important to follow the exact prescription of antiplatelet drugs by the doctor. Self-termination of these drugs can lead to fatal blood clots inside the stents.
6. Any follow-up consultations should be attended as scheduled.

Should there be any enquiries or concerns, please consult the attending doctor.

Under the professional care of the doctor, you will gradually recover. We wish you all the best during your treatment and recovery.

If you have any questions after reading the entire leaflet, please write them down in the spaces provided in order for the doctor to further follow-up.

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Compiled by Union Hospital Operating Theatre (OT) Governance Committee

The above information is for reference only, please enquire your physician for details
Our Hospital reserves the RIGHT to amend any information in this leaflet without prior notification