Gleneagles Hospital
HONG KONG
港怡醫院

Procedure Information Sheet – Carotid Artery Stenting and Angioplasty

Hosp No.	:	HKID No.:	
Case No.	:		
Name	:		
DOB	:	M / F	
Adm Date	:		
Contact No.	:		

1. Introduction

1.1. Carotid artery stenting/angioplasty is a special X-ray procedure for opening-up the narrowed carotid artery, in order to prevent further stroke.

1.2. Carotid artery stenting/angioplasty is considered in patient with transient ischemic attacks and stroke, diagnosed to have at least 70% internal carotid artery stenosis.

1.3. Stent restenosis and occlusion rate is below 10% and may require subsequent treatment.

2. Before the Procedure

2.1. You will be invited to a ward or outpatient clinic for some preliminary tests including blood tests. We will also check your allergy history.

2.2. Our medical staff will explain to you and your relatives the procedure and its risks, and present to you this information leaflet. You have to sign an informed consent.

2.3. Blood thinning drug (warfarin) or diabetic drugs (metformin) may have to be stopped several days before the procedure. Special anti-platelet drugs (Clopidogrel, Ticagrelor or Prasugrel) should be taken before the intervention. Steroid will be given if there is history of allergy.

2.4. 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.

2.5. If you are a female, please provide your last menstrual period (LMP) and avoid pregnancy before the procedure as this procedure involves exposure to radiation.

3. The Procedure

3.1. The procedure will be performed under local anesthesia or general anesthesia and aseptic technique.

3.2. The interventionist will puncture a blood vessel at your groin region (mostly right side) with a needle. After the needle is correctly positioned, a slender guidewire is placed through the needle into the blood vessel. The needle is then withdrawn, allowing a fine plastic tube (the catheter) to be placed over the guide wire into the blood vessel.

3.3. The X-ray equipment will then be used to navigate the catheter into your neck region and special dye (contrast medium) will be injected through the catheter and X-rays taken.

3.4. A cerebral protection device will be placed into your artery to decrease the risk of stroke.

3.5. Stent of appropriate size will be placed within the artery over your neck region.

3.6. Your artery will be dilated by a balloon attached to catheter tip.

3.7. You may feel dizziness and your blood pressure may drop during the procedure.

3.8. The cerebral protection device will be removed after the procedure.

3.9. During the procedure, you should not move your head or talk.

3.10. Certain drugs may be given to you during the procedure to control your blood pressure and prevent clots formation.

3.11. The duration of carotid stenting/angioplasty is different for every patient, it depends on the complexity of the condition. Usually the procedure last for one to two hours.

3.12. At the end of the procedure, the catheter may be removed or left in your groin region for later removal in the ward.

3.13. Your vital signs (e.g. blood pressure, pulse) and neurological condition will be monitored during and after the procedure. Attention should be paid on the skin puncture site to make sure there is no bleeding from it.

4. After the Procedure

4.1. After the procedure, catheters will be removed. The wound site will be compressed or sutured to stop bleeding. Sometimes, special devices may be used to stop bleeding.

4.2. Nursing staff will check your blood pressure, pulse and wound regularly.
4.3. Bed rest is necessary for a few hours. In particular, please do not move or bend the affected limb. If the wound is over the groin, please apply pressure with your hand when you cough or sneeze so as to avoid re-bleeding.
4.4. You should inform your nurse if you have any discomfort; particularly chest discomfort or find blood oozing from the wound site.

5. Risks and Complications

5.1. There will be 5% chance that the procedure is unsuccessful.
5.2. Overall death related to carotid artery stenting/angioplasty is about 2%.
5.3. Overall incidence of major complications of carotid artery stenting/angioplasty is around 5%.
5.4. Major complications include:
  5.4.1. Major stoke results in permanent neurological deficit (permanent limb weakness, numbness, visual loss).
  5.4.2. Groin or retroperitoneal hematoma requiring transfusion or surgery.
  5.4.3. Arterial occlusion requiring surgical thrombectomy or thrombolysis.
  5.4.4. Arteriovenous fistula / pseudoaneurysm at puncture site.
  5.4.5. Contrast media associated nephrotoxicity.
  5.4.6. The overall adverse reactions related to iodine-base non-ionic contrast medium is below 0.7%. The mortality due to reaction to non-ionic contrast medium is below 1 in 250,000.
  5.4.7. Breakage and knot forming of catheter or guidewire is very rare, this may require surgical removal.
  5.4.8. Cardiac arrest at time of balloon dilatation.
5.5. Minor complications include:
  5.5.1. Groin bruise and pain
  5.5.2. Complications related to contrast medium injected – rash, urticaria
  5.5.3. Transient neurological deficit which is reversible within 24 hours (limb weakness, numbness)
  5.5.4. Transient visual loss
  5.5.5. Symptomatic bradycardia, temporary asystole

6. Remarks

6.1. It is hard to mention all the possible consequences if this procedure is refused.
6.2. The list of complications is not exhaustive and other unforeseen complications may occasionally occur. The risk quoted is in general terms. In special patient group (e.g. diabetics), the actual risk may be higher.
6.3. Should a complication occur, another life-saving procedure or treatment may be required immediately.
6.4. If there is further query concerning this procedure, please feel free to contact your nurse or your doctor.

7. Reference

7.1 Hospital Authority. Smart Patient Website.

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I acknowledged the above information concerning the operation or procedure. I have also been given the opportunity to ask questions and received adequate explanations concerning the condition and treatment plan.

Patient/ Relative Signature: _____

Patient/ Relative Name: _____

Date: _____