



Procedure Information Sheet

Introduction

Intra-aortic balloon counterpulsation (IABP) is an invasive procedure. It is a big balloon (of 30-50 cc) placed in aorta by percutaneous approach through X-ray guidance. It inflates and deflates according to heart rhythm. The aim is to raise blood pressure during diastolic phase. This can increase coronary blood flow and cardiac output.

IABP is usually done in emergency situation. It may be done in connection with other procedures such as percutaneous coronary intervention or when emergent transfer to another institute is necessary.

If this procedure is refused, the condition of patients can deteriorate rapidly, or other life-saving procedures cannot be performed.

Indication

IABP is indicated in patients having cardiogenic shock, refractory angina, severe aortic stenosis, or critical coronary artery disease requiring urgent treatment.

The Operation / Procedure

1. This is an invasive procedure that is performed under local anesthesia in a cardiac catheterization centre, X-ray room or ward.
2. A small wound is made from the groin for access to the aorta. A sheath is placed in the groin.
3. A balloon of size 30-50 cc is placed in the aorta under X-ray guidance.
4. The balloon is connected through a catheter to a portable machine with a console showing parameters.
5. The balloon can be inflated with helium gas. The inflation and deflation is synchronized with the heart beat.
6. The sheath and the catheter are secured with stitches on the thigh.
7. Concomitant procedures may be performed after IABP insertion, or immediate transfer to another institute may be necessary.

Before the Operation / Procedure

1. Doctor will explain the benefit and risk of this procedure. Patient need to sign an informed consent.
2. Blood pressure, heart rate, blood oxygen and electrocardiogram will be monitored closely. An intravenous drip site will be set up.
3. Shaving may be required over the puncture site.
4. If patient is a female, please provide your last menstrual period (LMP) as this procedure involves exposure to radiation.

After the Operation / Procedure

1. After return to ward, nursing staff will check blood pressure, pulse and wound regularly.
2. Blood thinning drug has to be given to avoid clot formation on the device.
3. Please do not move or bend the affected limb. It is also important to keep lying flat as far as possible in order to avoid catheter kinking.
4. Should inform nurse if patient feels discomfort or blood oozing is found from the wound site.
5. IABP will be gradually weaned off and the balloon catheter withdrawn once condition is stable and the underlying cause treated. It may take days but very occasionally more than 1 week.
6. After balloon removal, the groin wound will then be compressed or sutured to stop bleeding. Whenever cough or sneeze, apply pressure on the wound with hand.

Patient's Label
Patient Name: _____
Hospital No: _____
Episode No: _____



7. Before discharge, the wound will be covered with light dressing. Please keep the wound site clean and change dressing if wet. In general, showers are allowed after 2 days.
8. Please avoid vigorous activities (household or exercise) in the first 7 days after IABP is removed. Bruising around the wound site is common and usually subsides 2-3 weeks later. If any signs of infection, increase in swelling or pain over the wound, come back to the hospital immediately.
9. Usually doctor has explained the results of the procedure and subsequent management plan.

Risk and Complications

1. The procedure carries certain risks. The risk is higher if arteries are diseased or tortuous.
2. Major complications include death, arterial dissection, leg ischaemia, valvular injury, stroke and severe bleeding. Very occasionally, leg amputation is required if leg ischaemia cannot be treated.
3. Other complications include infection, bleeding and balloon rupture.
4. Minor complications include allergy to contrast reaction, nausea, and groin complications. Bruising around the wound site is common.

Alternative Treatment / Investigation

Alternative treatment methods include 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: Intra-Aortic Balloon Counterpulsation (4/2019)

Patient's Label
Patient Name: _____
Hospital No: _____
Episode No: _____

Patient's Signature: _____ Date: _____