香港浸信會醫院
Hong Kong Baptist Hospital

Procedure Information Sheet

Introduction

Collection of fluid in the pericardial space (membranous sac wrapping around the heart) is called pericardial effusion. Causes of pericardial effusion include infection, inflammation, malignancy, metabolic disease, trauma, congestive heart failure, etc. Pericardial effusion can restrict the normal blood filling of the heart and decrease heart function, leading to heart failure. Rapid accumulation of fluid can cause acute pulmonary edema, shock or sudden death, emergency procedure is needed in the case of rapid fluid accumulation. Pericardiocentesis (PC) is an invasive procedure used to treat pericardial effusion. It is done by introducing a drainage tube into the pericardial space, usually under echocardiographic guidance to remove abnormal collection of fluid to restore the normal function of the heart; laboratory tests of the collected fluid can give a diagnosis of the pericardial effusion.

Indication

Pericardial effusion caused by infection, inflammation, malignancy, metabolic disease, trauma, congestive heart failure, etc.

The Operation / Procedure

1. Echocardiogram is performed to determine the needle entry site. It can be either below the tip of the xiphoid process or at the apex of the heart.
2. The procedural area will be disinfected.
3. Local anesthesia will be given to the needle entry site.
4. A needle is inserted into the pericardial space and a flexible wire introduced through the needle. A hollow tube is exchanged over the wire and secured in the pericardial space. The tube is then connected to a sterile collection bottle outside the body. Fluid will be drained into the bottle.
5. Fluid is sent for laboratory analyses.

Before the Operation / Procedure

1. An echocardiogram (ultrasound imaging of heart) will be performed to assess and confirm the location, amount and clinical significance of the pericardial effusion.
2. Doctor will explain to the benefit and risk of this procedure. Patient needs to sign an informed consent.
3. Blood pressure, heart rate and electrocardiogram will be monitored closely. An intravenous drip site will be set up.
4. In the case of an elective procedure, blood thinning drug should be stopped 3-5 days before. For emergency procedure, special drug or infusion may be given to neutralize the effect of blood thinning drug.

After the Operation / Procedure

1. The hollow tube is left connected to the drainage bottle until there is no more fluid drained and no accumulation of fluid in the pericardium. This may take a few days.
2. Sometimes, the position of the hollow tube requires adjustment to facilitate fluid drainage.
3. Echocardiogram will be performed to monitor the clearance of fluid.
4. A small wound will be seen after removing the tube and will be covered with light dressing. Please keep the wound site clean and avoid making the dressing wet during a bath. Always change dressing if wet.
5. Doctor will discuss the result of the procedure and further plan of management.

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

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Pericardiocentesis

Risk and Complications

1. The procedure carries certain risks.
2. Major complications (2-4%) include death, heart attack, perforation of the heart chamber, injury to the liver, pneumothorax and severe bleeding.

Alternative Treatment / Investigation

Surgical opening of the pericardium.

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: Pericardiocentesis (4/2019)

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Patient Name: _____
Hospital No:_____
Episode No:_____

Patient's Signature:_____ Date:_____