



Procedure Information Sheet

Introduction

Recently, catheter ablation, traditionally used for treatment of supraventricular tachycardia, has been applied for treatment of atrial fibrillation. Atrial fibrillation (AF) is the most common arrhythmia encountered in clinical practice. It has three disadvantages, namely (1) Irregular fast heart beat; (2) impairment of contraction of the atrium; and (3) formation of blood clot. These result in palpitation, breathing difficulty, chest discomfort, fatigue, and fainting. In the long run, it may cause heart failure and dislodgement of the blood clots to different organs, e.g. leading to stroke.

Specially designed needle and instrument will be used to make a small hole in the area separating the right and left atrium (Transseptal Left Heart Catheterization). This small hole enable physician to bring catheters from the right atrium to the left atrium. After identify the abnormal electrical firing foci or thoracic vein (e.g. pulmonary veins, superior vena cava), apply energy to destroy them or confining them inside the thoracic vein, making them not able to conduct into the atrium. This procedure not only cures atrial fibrillation, but also controls the symptom and improves quality of life.

Indication

Patients suffering symptomatic atrial fibrillation despite medical therapy or those intolerate to medical treatment.

The Operation / Procedure

1. This invasive procedure is performed under local anesthesia in a cardiac catheterization centre. Patient is alert during the procedure, but sedation may be given for calm down purpose.
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 the arm will be taken during the examination.
3. Small wounds are made over the groins, under the clavicle or around the neck for access to arteries or veins. Catheters are advanced to the heart under X-ray guidance.
4. At specific sites inside the heart, electrical information will be recorded; then deliver tiny electric current to alter heart rate and try to trigger arrhythmias.
5. Patient may experience discomfort when the heart is being excited to certain rate.
6. Since the abnormal electrical activities usually arise from the left atrium, doctor needs to perform transseptal left heart catheterization with special needle and instruments, make a small hole in the area separating the right and left atrium. This small hole enable doctor to bring catheters from the right atrium to the left atrium.
7. Using computerized tomography image, signals recorded from the catheters, and 3-dimensional navigating system, doctor can identify the abnormal electrical firing foci or thoracic vein (e.g. pulmonary veins, superior vena cava).
8. Energy will be delivered to the target site via special catheter. Patient may experience slight chest discomfort during delivery of energy.
9. After ablation, electrophysiology study will be carried out to confirm the success of the procedure.
10. When an induced arrhythmia is persistent, medical staff may use direct current cardioversion to convert it.
11. The duration of the procedure could last from 4 hours to over 9 hours depending on the nature and complexity of the arrhythmia.
12. Patient will be sent to the ward for observation for another 12-24 hours.

Patient's Label

Patient Name: _____

Hospital No: _____

Episode No: _____



Risk and Complications

1. The procedure carries certain risks.
2. Minor complications includes wound bleeding and wound infection.
3. Major complications account for about 4.5%. These include damage to blood vessels, lung and the heart that may need surgical intervention, cardiac tamponade, narrowing of the pulmonary vein, damage of the nerve supplying the diaphragm leading to permanent diaphragmatic paralysis, stroke, formation of abnormal communication between the esophagus and the heart, infection, and death (0.15%) due to uncontrollable complications.
4. The procedure may not be able to improve symptom in about 30% of cases.
5. Some people may require more than one procedure.

Alternative Treatment / Investigation

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: Catheter Ablation of Atrial Fibrillation (4/2019)

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

Patient's Signature: _____ Date: _____