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Cardiac Electrophysiologic Study (EPS) and Radiofrequency Catheter Ablation (RFCA)



To deliver intelligent and holistic medicine and to provide the best healthcare Compassion Quality Innovation Accountability

All information above has been reviewed by Cardiology specialists Edited and published by the Department of Nursing, Taichung Veterans General Hospital

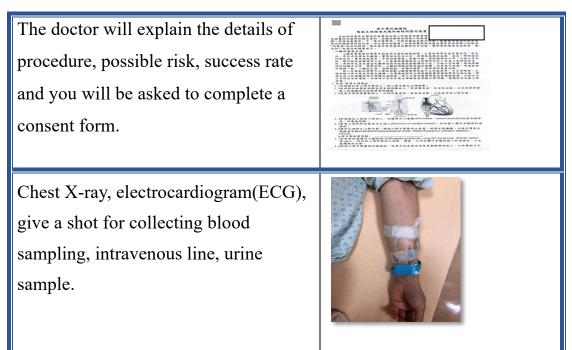
1. Purpose

Cardiac electrophysiologic study (EPS) is the best way for the cardiologist to evaluate the mechanism of your arrhythmia. It records the electrical conduction of heart and induces an episode of arrhythmia, if needed, clarifying the mechanism of the arrhythmia and guide the treatment of arrhythmia.

Radiofrequency catheter ablation (RFCA) is an effective treatment for cardiac arrhythmia. After confirming the mechanism via EPS, the arrhythmia focus can be detected and ablated by the catheter. It obviates the open-heart surgery and the need for long-term medical control.

- 2. Indication
 - (1) It is the treatment of choice for paroxysmal supraventricular beats
 - (2) Patients with atrial fibrillation or ventricular tachycardia who are ineffective or unable receiving side effects of drugs

3. Preparations



The staff will make a mark over dorsalis pedis artery for assessment of adequate perfusion.	
Discontinue anti-arrhythmic drugs according doctor's instruction.	
If the procedure is in the morning, you should be fasting since midnight; if the procedure is in the afternoon, you should be fasting after breakfast.	早上做心導管 午夜12點以後禁食、禁水
Before the procedure, you should take off your underwear; remove your glasses, removable dentures, accessories, and watches.	

During the procedure, family members or relatives must accompany to wait outside the cardiac catheterization room.



4. EPS/RFCA procedures

In cardiac catheterization room, doctors will place three catheters through your vessels after sterilizing and applying local anesthesia medication. In normal situation, we'll choose right femoral artery, right femoral vein, left femoral vein, and right internal jugular vein for placing catheters. Finally, the tips of catheters will be sent into heart chambers for recording the electrical signals of the heart. Focus of arrhythmia will be mapped and detected during EPS. Then, the lesion which causes the arrhythmia will be ablated. After that, doctors might give some attempts to induce the arrhythmia for confirming that the culprit arrhythmia could not be induced anymore after RFCA. The procedures are done under local anesthesia and you are conscious during the process.



5. After EPS/RFCA

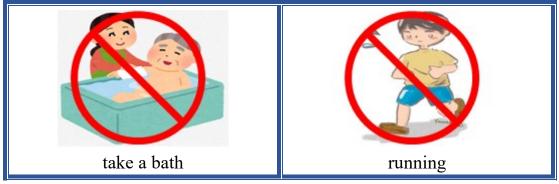
- (1) The nurse will monitor your heart rhythm, and closely observe the changes in pulse, respiration and blood pressure, measuring four times every 15 minutes, four times every 30 minutes, and twice every 1 hour.
- (2) If you do not choose self-paid hemostatic cotton or vascular stapler, you must lie on your back for 6 hours, and use a 2 kg sand bag to pressurize the compress site. When lying flat, it is forbidden to flex the knee and hip joints, but the puncture side can be moved.

Do not do knee and hip flexion when lying down.



- (3) If you are a high risk of bleeding tendency, continuous bleeding or local bleeding after removal of the catheter (heat at the puncture site, wet and sticky feeling) etc., the doctor will extend the manual pressure for 15-30 minutes, and extend the pressure time until the puncture No bleeding at the site.
- (4) If there is a wound suture, the doctor will consider the individual situation and inform the sand bag compression time, you can get off the bed earlier, and then gradually get off the bed.

(5)For 24 hours, do not get out of bed to take a shower (but you can take a bath in bed) and vigorous exercise, such as running or squatting up.



- (6) If you experience coldness, numbress, or tingling in the limbs, please immediately notify the staff.
- (7) If you have no water restrictions, drinking more water to eliminate the contrast from the body.
- 6. After discharged
 - Please come back to cardiac EPS outpatient clinic for follow-up visits on scheduled date.
 - (2) Be aware of symptoms like palpitations, dyspnea or chest pain, which might be caused by recurrent arrhythmia or delayed complication. If it developed, please don't hesitate to come back to our emergency department and evaluation.
 - (3) You may resume usual daily activity one week after discharged from hospital.
 - (4) Please remove the dressing over puncture site one day after discharged, if the puncture site is still bleeding; please come back to the emergency room immediately.
 - (5) If you still have any question, please don't hesitate to call(04)23592525-6055 for consultation.

7. Conclusion

The clinical manifestations of arrhythmia vary greatly, ranging from mild chest discomfort palpitations, dizziness, shock, and sudden death. In the treatment, abnormal heartbeat rhythm can be detected through electrophysiological study, and radiofrequency catheter ablation can be performed to block and destroy the abnormal heart conduction path.

8. Reference

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Let's take a test to confirm that you have a thorough understanding

 If the procedure is in the morning, you should be fasting since midnight.

○YES ○NO ○Not sure

- 2. Before the procedure, you should take off your underwear; remove your glasses, removable dentures, accessories, and watches.
 OYES ONO ONot sure
- During the procedure, family members or relatives do not need accompany to wait outside the cardiac catheterization room.
 OYES ONO ONot sure
- 4. For 24 hours, do not get out of bed to take a shower (but you can take a bath in bed) and vigorous exercise, such as running or squatting up.
 OYES ONO ONot sure
- 5. After the procedure, when lying flat, it is forbidden to flex the knee and hip joints, but the puncture side can be moved.
 OYES ONO ONot sure