

A short note on cardiac electrophysiology.

Teruhiko Imamura*

Department of Pediatric Surgery, Mediclinic Parkview Hospital, Dubai, United Arab Emirates

Accepted on November 15, 2021

Description

An Electrophysiology (EP) test is a test performed to evaluate the electrical system or activity of the heart and is used to diagnose abnormal heartbeats or arrhythmias. The test was performed by inserting a catheter that measures electrical activity through a blood vessel that enters the heart, and then a wire electrode. Most often, this area of study is used to diagnose and treat specific heart conditions that affect the electrical activity of the heart muscle. Although such tests are most commonly performed in the elderly and young people with congenital heart diseases and also benefit from the diagnostic and therapeutic potential of this area of treatment. EP studies can help identify the cause of abnormal cardiac rhythms (arrhythmias). It may also be done to predict the risk of sudden cardiac death. EP studies are conducted in hospitals by a cardiologist with special training in cardiac arrhythmias (electro physiologists).

The EP study will be conducted at the hospital's electrophysiology laboratory and will lie on an X-ray examination table. Cameras, TV screens, heart monitors and various musical instruments are nearby. Electrodes are placed on the chest and back and connect to the monitoring device. A blood pressure cuff is placed on the upper arm to monitor blood pressure. To prevent infection, nurses shave and clean the groin and in some cases, the neck where the catheter is inserted. The area is cleaned with a disinfectant. A sterile sheet is placed on your body. Find a comfortable position so that you can stay calm during surgery. Do not touch sterile areas of the neck or groin. Depending on the type of study you are undergoing, the drug may be given to you intravenously, to calm you or to your arm to make you sleepy. These medicines help reduce your anxiety and relieve your discomfort. A local anesthetic is given with a small needle to paralyze the area where the catheter is inserted. For a few seconds you will feel a pin stab and perhaps a stab. Insert one or more catheters, which are thin, long, and flexible wires, into large veins in the groin or neck. The

catheter is carried to your heart. The position of the catheter in the heart is monitored on the screen. You may feel pressure when inserting the catheter. The incision site will be less than a quarter inch. EP studies give doctors a very detailed look at how electrical signals pass through the heart. A doctor may recommend an EP test if:

Arrhythmia

If you are diagnosed with an arrhythmia or a fast heartbeat, such as Supraventricular Tachycardia (SVT) or another type of tachycardia, the doctor may perform an EP study to determine the best treatment.

Fainting

If you suddenly lose consciousness (syncope or fainting), an EP test will help you understand the cause.

Risk of sudden cardiac death

If you have certain heart diseases, doctors may recommend EP studies to better understand the risk of sudden cardiac death.

Cardiac ablation

Cardiac ablation uses heat or cold to correct an arrhythmia. EP tests are always done before cardiac ablation to identify areas of arrhythmia. If you have heart surgery, you can have a heart ablation and an EP test on the same day.

*Correspondence to:

Teruhiko Imamura,
Department of Pediatric Surgery,
Mediclinic Parkview Hospital,
Dubai, United Arab Emirates
Email: Imamura@yahoo.com

Citation: Imamura T. A short note on cardiac electrophysiology. *Curr Trend Cardiol.* 2021;5(6):86.