Cardiac Electrophysiology (EP) Services: E.P. study and ablation

Cardiac Electrophysiology is a branch of cardiology that deals with abnormal heart rhythms - when the heart beat is too fast, too slow or irregular. These abnormal rhythms are called arrhythmias. Arrhythmias may cause a variety of symptoms like palpitations, dizziness or even fainting spells.

What is an E.P. study?

In patients with an abnormal heart rhythm, an E.C.G. recording during symptoms often helps towards the diagnosis. However, in many cases, a routine E.C.G. does not give a complete diagnosis. In this case an E.P. study may be needed. In this procedure, narrow catheters are advanced through the veins of the leg or the shoulder into the heart and E.C.G. signals from inside the heart are recorded. The heart is then stimulated to try and initiate the abnormal rhythm and the signals during the arrhythmia are also recorded. These recordings are the most accurate method of making an accurate diagnosis of the problem and guide further therapy, which may involve medicines, implantable devices or ablation.

What is ablation?

During an E.P. study, a small area on the inner surface of the heart that is responsible for the patient's symptoms is identified. A special catheter is advanced under X-ray guidance to the culprit area. The tip of the wire is placed on the affected tissue and heat energy is delivered to ablate (burn) this tissue to permanently cure arrhythmia.

Who needs an E.P. study and ablation?

Patients with symptoms of palpitations, dizziness or fainting may need an E.P. study. However, not all patients with these symptoms require this procedure and whether or not an E.P. study is needed is best decided by a Cardiac Electrophysiologist (a cardiologist specially trained in dealing with abnormal heart rhythms). Patients with the following diseases are often referred for the E.P. study:
- SVT (also referred to as PSVT, PAT or Supraventricular Tachycardia);
- Atrial tachycardia;
- Atrial flutter;
- Ventricular tachycardia;
- WPW (Wolff-Parkinson-White Syndrome);
- Atrial fibrillation;
- Syncope (Fainting spells);
- Atrial fibrillation;
- Cardiac arrest.

Depending on the findings of the E.P. study, an ablation is performed usually at the same time.

**Before the procedure:**

Prior to the procedure, a detailed discussion should take place between the patient, his/her family and the electrophysiologist. The patient should stop taking medicines for arrhythmia two to three days before the procedure. Some medicines may need to be stopped for a longer period of time. The patient is usually admitted to the Hospital on the day of or a day before the procedure. The patient must not eat or drink for six to eight hours prior to the procedure, and may be asked to shave the groin area and the left shoulder area. Patients are advised to bring their complete previous medical records with them to the Hospital.

**What happens during the procedure?**

The patient is brought to the cardiac catheterisation laboratory, which is a large room with an X-ray machine. The patient is asked to lie down on the bed and is hooked up to E.C.G. wires, which are connected to a specialised E.C.G. machine. An intravenous (IV) line, if not already running, is inserted in one of the arms. The upper thigh and left shoulder area are cleaned with antiseptic and draped with sterile sheets. Medication is given via the IV line to make the patient feels drowsy and comfortable. Local anaesthetic is given in the upper
thigh and shoulder area and the diagnostic catheters (thin wires) are inserted inside the heart under X-ray guidance.

Once the catheters are in place the patient may feel the heart intermittently speeding up and slowing down while attempts are made to initiate the abnormal rhythms. Once the arrhythmia is initiated, details of ECG signals are recorded and the culprit area in the heart responsible for the patient's symptoms is identified.

If ablation needs to be done, a special catheter is then placed at this affected area and its tip is heated to destroy the tissue responsible for abnormal rhythm.

Once the doctors feel that the problem has been cured, they try to initiate the tachycardia again to confirm their success. If they are satisfied, the catheters are removed and the patient is moved back to his/her room.

After the procedure:

The patient will have to lie straight for about four hours following the procedure, after which he/she can walk around. Under routine circumstances the patient can be discharged the following morning and return to work the same day as discharge, if things go according to routine.

Since ablation is a curative procedure, most patients who have a successful ablation will be able to stop any medications they were previously taking for their abnormal heart rhythm.

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علاقہ کے بعد:

مرینج کو 4 کیٹھک کہتے ہیں۔ یہ کیا ہے؟ کس کے لئے ان کے ملکیات کی تربیت ہے؟ یہ کیا ہے؟

کیا مرینج کی سلوک کم کی تماشا جاری کیا ہے؟ یہ کیا ہے؟ انتظامیہ کے مança کی بیانات ہے

اذعان کے نئے ہوئے کی زیادہ جائز ہے:

مزید معلومات کے لئے روہنہ کے:

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Supraventricular Tachycardia (SVT/PSVT/PAT)

![Image of a patient being monitored by a healthcare provider]

**Surgical Ablation**

**Procedure:**

Surgical ablation is a procedure used to treat supraventricular tachycardia (SVT) that is refractory to medical therapy. It involves the creation of lesions in the cardiac tissue to interrupt the electrical circuit that maintains the tachycardia. The procedure can be performed using techniques such as radiofrequency ablation, cryoablation, or laser ablation.

**Indications:**

Surgical ablation is indicated for patients with symptomatic SVT that cannot be controlled with medications. It is also considered for patients who have had multiple hospitalizations for SVT or who have had significant complications from their SVT.

**Complications:**

The complications associated with surgical ablation include arrhythmias, heart block, and rarely, atrioventricular block.

**Outcome:**

The success rate of surgical ablation for SVT is typically high, with a success rate of over 90% in most cases. The procedure can be performed on an outpatient basis and patients are typically discharged within 24 hours.
کاوزنیک ایمپلنت فریمیاچی (ای پی) خدمات: ای پی میکروریور قلبی

کارڈیولوژی ایمپلنت فریمیاچی (ای پی) کا کارڈیولوژی (کا کارڈیولوژی) کی کوئی تنظیم ہے جسے مریضوں کو خاص مولکول کہا جاتا ہے المبتی سے اس کی اہمیت کردار ہے Arrhythmias (مریض کہا جاتا ہے آرتھمیزیا) یہ محضی قدر سے کہتے ہیں۔

ای پی مہا کا کا قلب؟

یہ مریضوں کے لئے خاص کی سہولت ہے جسے اس کی مدد سے آرتھمیزیا کے ویژن کا خاص بات ہے۔ کے بسے مریضوں کا مداخلت کے لئے کیا کھلا ہوا ہے، اس لئے مریضوں کی مدد سے یہ لمبی مدت کی ڈیجیٹال قلب کا ہے۔

آرتھمیزیا کا پہلا شاہرت؟

آرتھمیزیا کا پہلا شاہرت ہے یہ ایمپلنت فریمیاچی (ای پی) دیکھنے والوں کی مدد سے یہ شاہرت ہے اور ایمپلنت کی مدد سے یہ شاہرت ہے۔

ای پی مہا کا کا قلب؟

ای پی مہا کا کا قلب ہے ایمپلنت فریمیاچی (ای پی) کا پہلا شاہرت۔ ایمپلنت فریمیاچی (ای پی) کا پہلا شاہرت ہے اور ایمپلنت فریمیاچی (ای پی) کا پہلا شاہرت ہے۔

ای پی مہا کا کا قلب؟

ای پی مہا کا کا قلب ہے ایمپلنت فریمیاچی (ای پی) کا پہلا شاہرت۔