

# INFORMATION FOR PATIENTS UNDERGOING ELECTROPHYSIOLOGICAL STUDY



Azienda Sanitaria Universitaria Giuliano Isontina

## **An endocavitary electrophysiological study is recommended for the diagnosis and treatment of the following pathologies:**

- Syncopations or palpitations of a nature to be determined
- Ventricular arrhythmias
- Intraventricular conduction abnormalities
- Arrhythmic risk stratification

## **PURPOSE OF THE PROCEDURE**

The electrophysiological study allows to evaluate the presence, type and mechanism of your arrhythmias, both the so-called "slow" ones (bradyarrhythmias) and the "fast" ones (tachyarrhythmias), and establish which is the most suitable treatment.

## **DESCRIPTION OF THE PROCEDURE**

**Endocavitary electrophysiological study** is an operation performed under asepsis in the operating room, after local anesthesia and with the help of radiological equipment: the procedure consists in positioning some probes (electrocatheters) inside the heart, through one or more veins of the leg or neck, and in carrying out a series of electrical measurements and artificial stimulation of the heart. During the examination, if the arrhythmias under study are induced, it is possible to feel palpitations or dizziness.

The electrophysiological study (both endocavitary) is generally performed in day hospital without overnight stay in hospital. If it is necessary to perform further therapeutic interventions (ablation, implantation of a pacemaker or defibrillator) on the basis of the results of the study, a longer hospitalization may be necessary.

## **POSSIBLE COMPLICATIONS**

### **Endocavitary electrophysiological study**

Globally they are less than 1%; they are almost exclusively intraoperative **VASCULAR COMPLICATIONS**: damage to the vessels through which the catheters are introduced (hematoma, thrombophlebitis, deep vein thrombosis, arteriovenous fistula, arterial dissection). These complications are usually treatable with medical therapy and bed rest and only rarely require transfusions or surgery.

**CARDIAC COMPLICATIONS**: they occur quite exceptionally and are represented by:

- 1) malignant ventricular arrhythmias requiring electrical cardioversion;
- 2) pericardial effusion which generally resolves in a short time and with medical therapy; a large effusion can cause more serious consequences (cardiac tamponade) and may require drainage with a needle or occasionally surgery;

## **ALTERNATIVES**

If the clinical and non-invasive information for an adequate evaluation of the arrhythmic situation is not sufficient, there are no alternatives to the electrophysiological study.

## **AFTER THE PROCEDURE**

In general, the period necessary for a functional recovery is about 4-5 days. After discharge from hospital it is necessary to follow all the provisions and prescribed treatments. In the event of pain, swelling or bleeding at the puncture site, appearance/worsening of chest pain or palpitations or in any case of any worsening of symptoms in the days

following discharge from hospital, it is advisable to contact the Cardiologist or Arrhythmologist; in the event of particularly severe or rapidly worsening symptoms, go immediately to the Emergency Room.

## **SCARS**

There are no scars since the intervention is performed transvenously by puncture or transesophageally. Subsequent complete closure of the hole at the level of the interatrial septum has been demonstrated in the case of transseptal puncture.

## **PREGNANCY**

Due to the use of X-rays, it is necessary to inform the doctors of a possible pregnancy or pregnancy in progress.

### **DIAGNOSTIC AND INTERVENTIONAL ELECTROPHYSIOLOGY UNIT**

**Responsible: dr. M. Zecchin**

#### **CONTACTS**

**Secretariat 040 399 4865;**

**Pacemaker Clinic 040 399 4828**

**Hospitalization 040 399 4871-040 399 4899**

Drafted by ASUGI's Communication, External Relations, Press Office, URP on the basis of texts provided by dr. Zecchin of the Cardiology Department

## **CARDIOLOGY DEPARTMENT**

Director: prof. Gianfranco Sinagra

Revision 02 – November 2022