Universitätsspital Basel

Cardiology

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Information and patient consent form
Electrophysiological examination and catheter ablation of ventricular tachycardias and ventricular premature beats.

Dear patient,

You physician has referred you to us because you have arrhythmias that are difficult to treat with drugs and originate in the lower chambers of the heart, persistent as ventricular tachycardia or as ventricular extrasystoles in some beats. Since the catheter ablation of cardiac arrhythmias originating in the lower chambers of the heart is a procedure associated with specific risks, we would like to present the method below. This document supplements your personal consultation with your doctor.

Preliminary examinations

In the presence of persistent arrhythmia originating from the left lower chamber of the heart, your doctor will carry out a transthoracic echocardiography (cardiac ultrasound) where appropriate before catheter ablation. It is ensured that no blood clot is present in the left ventricle.

Examination and treatment method

The treatment is performed on fasting patients. After applying local anesthesia to the groin, various catheters are advanced through the veins into the heart under x-ray control. If the origin of your arrhythmia is suspected in the left ventricle, an access point is also created through the femoral artery. Alternatively or additionally, the septum can be pierced with a thin needle (transseptal puncture) to finally get into the lower left ventricle through the upper left heart ventricle.
The electrophysiological examination with simultaneous ablation can be time consuming. To ensure that the intervention is not too unpleasant, sleeping aids and sedatives may be administered. During the intervention, the blood is usually diluted. If you suffer from an increased risk of bleeding, please inform your doctor before the examination is started.
After catheter placement, the electrical activity is measured in the heart. Here, a (pacemaker) stimulation is used to trigger your own arrhythmia. During the examination, cardiac arrhythmias may occur which could necessitate rapid electroconversion to terminate the arrhythmia. Because of the painkillers and sedatives used, you will not sense this however.
Only after careful examination it can be decided with certainty whether a radiofrequency ablation is possible and useful. If it is possible, the structures responsible for the tachycardia are "sclerotized" with radiofrequency energy (a high frequency alternating current) through local tissue heating. The energy is delivered through a catheter with a small metal cap and is usually painless.

In special situations with a particularly severe heart failure or with an increased risk for the administration of strong pain and sleep medications where there have been problems with such medications or anesthetic procedures in the past for example and in case of preexisting respiratory problems or overweight, there is a possibility to perform the procedure in cooperation with the doctors of the anaesthesia department (anaesthesia) in general anesthesia and intubation, i.e. using a respiratory tube. Please inform your doctor if you have an increased risk.

Potential complications:

Although these treatments can usually be performed without a problem, complications may occur in a few cases. "Rare" complications are those, which are expected to occur in approximately 1 of a 100 interventions and "very rare" are those which occur approximately in one of 1000 interventions. Serious complications are described in a total of about 5-10% of these interventions. "Serious" complications are those, which lead to a prolongation of hospital stay or additional treatment. However, this category also includes the rare complications that can lead to some permanent damage or very rarely even to death.
Risks specifically associated with this therapeutic procedure include:

- As in all procedures, in which a blood vessel has to be punctured, complications such as bruises, vascular lesions, clogged blood vessels (thromboses), mobilisation of blood clots (embolism) or very rarely infections may occur in the puncture sites.
- A bleeding in the pericardium ("cardiac tamponade") is very rare. If this results in an impairment of the heart function, the blood has to be removed. An emergency open heart surgery is very rarely required for this.
- The influx of a blood clot or air into the circulatory system rarely occurs. If a blood vessel in the brain becomes occluded, temporary or permanent damage to the brain may result, a condition also referred to as transient ischemic attack or a stroke (cerebrovascular accident).
- Administration of strong pain relieving and sleeping drugs may rarely lead to inadequate breathing. Allergies or hypersensitivity against medications may rarely occur.
- The examination may involve a high exposure to radiation. Therefore, it should not be performed in pregnant women. Long-term damage cannot be excluded, but are usually very rare.
- Life-threatening complications due to an electrophysiological examination or a radiofrequency ablation in patients with ventricular tachycardia are very rare.

After the examination

After the examination, you must stay in bed to rest according to the doctor's orders. The legs must be kept straight, and the pressure bandage on the groin may not be removed. If swelling occurs on the puncture site, please contact us immediately, especially if this occurs after you are discharged from the hospital. For the avoidance of bleeding in the pericardium, we will conduct a cardiac ultrasound in a subset of patients after the examination.

Space for a sketch / personal notes:

Please contact us,

if you do not understand something or if something seems to be important that was not mentioned in this document or in the personal consultation with your doctor.

Declaration of consent

Dr. med. ……..……..……

held an informed consent discussion with me. I have understood the information provided to me and could make all the pertinent questions. After sufficient time to think and answering of all my questions I hereby declare myself ready for the proposed therapy. I express my consent for any follow-up procedures that may become necessary.

Signature of patient: _____

Signature of doctor: _____

Place and date: _____

Consent to data collection and evaluation

I agree with the collection and analysis of scientific data of my treatment in an encrypted, electronic form. If necessary, the traceability of data for quality assurance is ensured. We assure you with an unrestricted right of access to inspect the data archived about you.

Signature of patient: ……..…….

Place and date: ……..……..