Having catheter ablation for cardiac arrythmias

This leaflet explains what having catheter ablation for cardiac arrythmias entails and what you can expect before, during and after the procedure.

What is a cardiac arrythmia?

Special cells in your heart create electrical signals that travel along pathways to the chambers of your heart. These signals make the hearts upper and lower chambers beat in the proper sequence. Abnormal cells may create disorganised electrical signals that cause irregular or rapid heartbeats called arrhythmias. When this happens, your heart may not pump blood effectively and you may feel faint, short of breath and weak. You may also feel your heart pounding.

Medications are used to treat rapid and irregular heartbeats in many people, but they don't work for everyone. They may also cause side effects in some people. In these cases, doctors may suggest catheter ablation. The procedure is used most often to treat a condition called supraventricular tachycardia, or SVT, a condition where your heart suddenly beats much faster than normal which occurs because of abnormal conduction fibres in the heart. Catheter ablation is also used to help control other heart rhythm problems such as atrial flutter and atrial fibrillation.

What is catheter ablation?

Catheter ablation is a term that describes the process of modifying the heart muscle so that it no longer transmits electrical signals. This is done by passing thin, flexible tubes, called catheters, through the blood vessels to the heart to pinpoint where the arrhythmia is coming from and destroying the area using heat. In the majority of SVTs, there is an abnormal electrical connection that causes a short circuit. By identifying and ablating (heating) the abnormal electrical connection, we are able to cure most patients who suffer with SVT. In some cases the cause of the SVT is more complex than first thought or can't be identified on the day of the study. In these cases we may not be able to deliver catheter ablation. Your doctor will talk to you about the various options.

What are the benefits of catheter ablation?

The benefit of having a catheter ablation is that your heart rhythm disturbance is potentially cured and your symptoms (palpitations, fainting, fatigue, breathlessness etc.) resolved.

The doctor will carry out the procedure with the help of a physiologist, who gives technical support. There will also normally be at least one nurse present, who will look after you and assist the doctor, as well as a radiographer who will control the X-ray equipment.

What are the risks of catheter ablation?

This procedure is generally safe. Complications are rare (around 1% or 1 in every 100 cases) but may include:

- Arrhythmias (irregular heartbeat)
- Bleeding at the site where the catheter is inserted
- Infection
- Blood clots
- Heart or blood vessel damage
- Damage to the artery where the catheter was inserted

The risk of death is believed to be just under 1 in every 2000 cases for most types of ablation.

What happens before the procedure?

On the day of the procedure you should come to the cardiac day ward, having bathed or showered at home before admission. The cardiac day ward is known as the 'Jim Shahi Unit' (JSU) and is located on level 1 in Battle Block. The JSU is an emergency unit and there may be unforeseen delays if the team need to treat urgent cases. Please bring something to occupy yourself while you wait.

You should nothing to eat from midnight. This includes sweets. You can drink clear fluids up to two hours before your admission time.

Most people can continue to take their regular medications. Please refer to the accompanying letter, which will contain any specific instructions regarding your medications. If you have any concerns regarding your medication, please ring the JSU, 0118 322 6502, for clarification.

If you are pregnant or think you may be pregnant, you should notify a member of the clinical admin team prior to the procedure (contact details at the end of this leaflet).

Please tell the nurses if you have any allergies.

What happens during the catheter ablation procedure?

A consultant cardiologist doctor with special training performs the procedure along with a team of nurses and technicians.

Catheter ablation is carried out in a cardiac catheter laboratory, a room which is similar to an operating theatre.

- The nurse will clean the area where the doctor will be working. This is usually in your groin, but could be your arm, neck or upper thigh.
- The physiologist will place ECG dots on your chest, a cold patch on your back, blood pressure cuff on your arm and oxygen probe on your finger, to monitor you during the procedure.
- You may also get a medicine (sedative) to help you relax and pain relief such as morphine, but you will be awake (but sleepy) during the procedure.
- The doctor will inject some local anaesthetic to numb the site.

- Once numb, the doctor will make a needle puncture through your skin and into the blood vessel (typically a vein, but sometimes an artery) in your groin (or other area being used). A small straw-sized tube (called a sheath) will be inserted into the blood vessel. The doctor will gently guide a catheter (a long, thin tube) into your vessel through the sheath. A video screen will show the position of the catheter. You may feel some pressure in the area, but you shouldn't feel any pain.
- The doctor inserts several long, thin tubes with wires, called electrode catheters, through the sheath and feeds these tubes into your heart.
- You may feel some sensation in your groin and chest while this is happening but the pain relief and sedation will help you tolerate this.
- To locate the abnormal tissue causing arrhythmia, the doctor sends a small electrical impulse through the electrode catheter. This activates the abnormal tissue that is causing your arrhythmia. Other catheters record the heart's electrical signals to locate the abnormal sites.
- It is very common to feel thumps, bumps or your typical symptoms during this time.
- The doctor places the catheter at the exact site inside your heart where the abnormal cells are. Then, a mild, painless, radiofrequency energy is sent to the tissue. This destroys heart muscle cells in a very small area that are responsible for the extra impulses that caused your rapid heartbeats.
- Catheter ablation can take 2-3 hours or longer. You are likely to be discharged the same day; however, occasionally you may be required to stay in overnight.

What happens after catheter ablation?

You will be moved to a recovery area and monitored by nursing staff. The sheath is usually removed in the procedure room or in the recovery area. You will be required to lie flat for one hour after the sheath is removed. A nurse can help you with pillows and repositioning if you have neck or back problems and find it difficult to lie flat for any length of time.

After the sheath is removed:

- A nurse will put pressure on the puncture site to stop the bleeding.
- You should keep your leg straight for one hour after the doctor or nurse removes the sheath. You will be informed when you can get out of bed.
- Your heartbeat and vital signs (pulse and blood pressure) will be monitored.
- Tell your doctor or nurse right away if you notice any swelling, pain or bleeding at the puncture site, or if you have chest pain. You will be discharged four hours after the procedure if everything is satisfactory.
- Before you leave the hospital, you'll be given instructions about what to do at home.
- Along with your regular medications, you may be prescribed other medication to assist in your recovery after the procedure.

What happens after I get home?

Follow the instructions you were provided with before leaving the hospital. Most people can return to their normal activities the day after they leave the hospital, with a few exceptions. For the first week after the procedure:

- **If you've had a catheter ablation you cannot drive for one week.**
- Avoid heavy physical activity for the first few days after you get home.
- Don't do any heavy lifting for the first week.
- Don't take a bath, swim or submerge the puncture site in water for at least 24 hours but you can take a warm shower.
- Keep the puncture site clean and dry. Speak to either a nurse on the JSU or your GP if you have any concerns regarding your wound.
- If the site starts to bleed, lie flat and press firmly on top of it. Seek advice from NHS 111, or if bleeding is heavy or not stopping, dial 999 for an ambulance.

Useful contact numbers

Jim Shahi Unit on 0118 322 6662.

CAT 11 Clinical Admin Team: 0118 322 6679 or email: rbb-tr.CAT11@nhs.net to amend your appointments or let us know if you may be pregnant prior to the procedure) Monday to Friday (9am-5pm)

Cardiac Care Unit: 0118 322 6528 (emergency advice only out of hours)

Cardiac Support: 0118 322 6638.

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

RBFT Jim Shahi Unit, July 2023.Next review due: July 2025