NHS
The Christie
NHS Foundation Trust

Radiology department

Superior vena cava stent

Introduction

This leaflet tells you about the procedure known as superior vena cava stent. It explains what is involved and the benefits and risks. It may make you think of the things you would like to discuss with your doctor.

What is an SVC stent?

An SVC sent is a wire mesh tube about 6 to 10cm (3 to 4 inches) long. The stent is placed in the vena cava. This is the large vein in the chest which brings blood back to the heart from the head and arms. The stent keeps the vein open and restores the blood flow.

Why do I need an SVC stent?

You have a narrowing or blockage of the SVC which is reducing the return of blood to your heart. This is either caused by a tumour pressing on the vein, a clot inside the vein or scarring after treatment. You may have other symptoms of SVC obstruction such as swelling of the face and arms, redness of the face, headaches, difficulties in breathing or swallowing and ringing in the ears.

Who has made the decision?

Your doctors and the radiologist inserting the SVC stent will have discussed the situation, and feel this is the best treatment option.

What to tell the doctor

- if you have any allergies
- if you have had a previous reaction to intravenous contrast medium (the dye used for some X-rays and CT scanning)
- it is important to tell the doctor or the radiology department **before attending for admission** if you are taking medication to prevent blood clots. Below is a list of some of the medications which are used to thin the blood and help to prevent blood clots.

If you are currently taking any of these medications, please contact your referring doctor or the radiology department on 0161 446 3325 as soon as possible, as these may need to be stopped prior to your procedure. Failure to do so may result in your procedure being postponed.

Apixaban	Dabigatran	Rivaroxaban
Aspirin	Dalteparin	Warfarin
Clexane	Enoxaparin	
Clopidogrel	Fragmin	

Is there any preparation for my stent?

- You may need to have your blood tested a few days before, or on the day of the procedure. This is just to check that it is safe to go ahead.

- The radiologist will explain the procedure and any possible risks to you and ask you to sign a consent form.

Agreeing to treatment

We will ask you to sign a consent form agreeing to accept the treatment that you are being offered. The basis of the agreement is that you have had The Christie's written description of the proposed treatment and that you have been given the opportunity to discuss any concerns. You are entitled to request a second opinion from another doctor who specialises in treating this cancer. You can ask your own consultant or your GP to refer you.

Your consent may be withdrawn at any time before or during this treatment. Should you decide to withdraw your consent, then a member of your treating team will discuss the possible consequences with you.

Who will insert the SVC stent?

The radiologist (specialist doctor) will insert the stent. Radiologists have special expertise in using X-ray equipment, and also in interpreting the images produced. They need to look at these images while carrying out the procedure.

Where will the procedure take place?

In the dedicated procedure room on the integrated procedure unit (IPU)

Will I need to be admitted into hospital?

You will be asked to attend the IPU. You will need to stay in the hospital overnight following the procedure. We will ask you to put on a hospital gown. The procedure is usually carried out using the large vein in your neck. Alternatively, we can use the vein in your groin.

What actually happens during the insertion of an SVC stent?

- On arrival at the IPU you will have the opportunity to discuss the procedure with the radiologist.

- The radiologist will explain all the benefits and possible risks associated with this procedure and we will ask you to sign the consent form.

- You will lie on the X-ray table, generally flat on your back. You will also have monitoring devices attached to you.

- The radiologist needs to keep everything as sterile as possible and will wear a theatre gown and gloves. The skin around the puncture site is swabbed with antiseptic and the area is covered with theatre towels. The tissues over the vein are anaesthetised with local anaesthetic and then a needle is inserted into the vein.

- The radiologist will use the X-ray equipment and small amounts of dye to make sure that the catheter is moved into the right position.

- The stent can be placed through a vein in your neck or through a vein in your groin. The radiologist will tell you about the approach they will use.

- Once the radiologist is satisfied that this is correctly positioned, a guide wire is placed through the needle into the vein. Then the needle is withdrawn and a fine plastic tube called a catheter, is placed

over the wire into the vein. The catheter is moved through the narrowed vein and X-ray dye injected to assess the narrowing further.

• A small dose of blood thinning medication will be injected and the stent placed into the vein through the special catheter. It is usually necessary to stretch the sten by blowing up a small balloon within it. This may cause some discomfort, but does not take very long.

Will it hurt?

Some discomfort may be felt in the skin and deeper tissues during the injection of the local anaesthetic. Some discomfort in the chest or shoulders may be experienced when the balloon is blown up. There will be a nurse, or another member of clinical staff looking after you, who can give you more painkillers if required. As the dye passes around your body, you may get a warm feeling. However this soon passes and should not worry you.

How long will it take?

Every patient's situation is different and it is not always easy to predict how long it will take. As a guide expect to be in the radiology department for about one and a half hours.

What will happen afterwards?

You will be taken back to the recovery bay on the IPU. You will stay there until an inpatient bed becomes available.
Groin approach: You need to stay flat on your back for 1 hour
Neck approach: You will need to sit upright for 1 hour.

Nurses in recovery and on the ward will carry out routine observations, such as your blood pressure and pulse, at regular intervals. They will also look at the puncture site to make sure there is no bleeding from it. Unless you require other treatment, you should be able to go home the following day.

Are there any risks or complications?

SVC obstruction is a serious condition. The overall mortality rate is low (3 in 100) with this procedure, and most people benefit from a good reduction in symptoms after this procedure.

Overall, benefits outweigh the risks and this will be discussed with you by your doctors. SVC stent insertion is a safe procedure, but there are some risks and complications that can arise.

• There may occasionally be a bruise or bleeding from the puncture site in the groin or neck.

• Very rarely, some damage can be caused to the vein or the nearby artery by the catheter, and this may need to be treated by surgery or another radiological procedure.

• In some cases the sudden increased return of blood to the heart may cause heart failure and fluid on the lungs.

• Sometimes the stent can become blocked by a clot. This may cause recurrent swelling of the arms and face and may require further procedures.

• The stent could be placed in the incorrect position or move into the heart or lungs, but this is not common.

What are the benefits of the procedure?

Restoring the blood return to the heart gives long-lasting relief to most people who have SVC stents.

What are the alternatives?
Other treatment options include radiotherapy or chemotherapy to reduce the tumour, blood thinning medication, venous bypass operations, or doing nothing.

What happens next?
Once the stent is implanted, it stays in place indefinitely. Your doctors will discuss other treatments you may need.

Further information is available from the radiology department on the phone numbers below or from the following websites:

Macmillan Cancer Support www.macmillan.org.uk
British Society of Interventional Radiology www.bsir.org

If you have any problems or worries, please contact:
From 9:00am to 5:00pm:
Radiology department on 0161 918 2346

Out of hours and weekends (for emergencies):
Ring The Christie on 0161 446 3000 and ask for the on-call radiologist

The Christie Hotline 0161 446 3658 (24 hours)

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

The Christie is committed to producing high quality, evidence based information for patients. Our patient information adheres to the principles and quality statements of the Information Standard. If you would like to have details about the sources used please contact **the-christie.patient.information@nhs.net**

For information and advice visit the cancer information centres at Withington, Oldham or Salford. Opening times can vary, please check before making a special journey.

Contact The Christie Hotline for urgent support and specialist advice
The Christie Hotline: 0161 446 3658
Open 24 hours a day, 7 days a week

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The Christie Patient Information Service
Tel: 0161 446 3000 www.christie.nhs.uk