South East Scotland Lung Cancer Group

Superior Vena Cava (SVC) Stents
An Information Leaflet for Patients

Q. What is SVC stenting?
A. SVC stenting is a medical procedure that corrects blood flow problems in the upper chest. The procedure is done without surgery. It is performed in the radiology (X−Ray) department by a specially trained doctor known as an interventional radiologist. The procedure may be performed at either Royal Infirmary of Edinburgh (RIE) or Queen Margaret Hospital in Dunfermline (QMH).

Q. Why would a person need an SVC stent?
A. When diseases or a growth in the upper lung or chest blocks the blood flow returning to the heart. The main vein in the upper chest is called the SVC. Blockage is called SVC obstruction. It causes prominent veins on the upper chest and swelling of the arms, neck or face. It may cause headaches especially when lying down.

Q. How is SVC obstruction diagnosed?
A. SVC obstruction is usually diagnosed on a CT scan (CAT scan). Sometimes a venogram is also performed. A venogram is X−ray pictures during injection of X−ray dye via the arm or both arms.

Q. What happens during an SVC stent procedure?
A. The interventional radiologist will open a channel through the blocked vein and put in place a small metal tube called a stent which will keep the channel open and allow the blood to flow again. The interventional radiologist will use X−ray pictures and X−ray dye (also called contrast) to guide the procedure.

Q. How do I prepare for the procedure?
A. Do not eat or drink after midnight. If you are allergic to X−ray dye (contrast) or iodine let your radiologist know so that special precautions can be taken.

Before the procedure the interventional radiologist will talk with you about the procedure in detail and answer any questions that you may have.

Q. What is the SVC stent procedure like? Will it hurt?
A. The interventional radiologist performs the entire procedure through a tube inserted into a vein (IV) in the groin or neck. The doctor will numb the area before putting in the IV tube. Sometimes the doctor will give medication to make you sleepy. At the end, when the IV tube is removed, stitches are not required. The procedure may take about an hour to complete.
Q. What happens after my SVC stent procedure?

A. You will return from the radiology department to your ward bed. If your ward was at a different hospital you will remain at the RIE or QMH for a period of observation (usually an hour or two). Sometimes it may be more practical to stay overnight. The doctors or nurses will tell you when you can eat and how long you have to stay in bed.

There may be swelling or bruising in the groin or neck where the IV tube was placed. This will go away in a few days to a week and generally requires no treatment.

Q. How quickly does the SVC stent work?

A. If you have swelling of the face and neck this should get better in a few days. Arm swelling may take longer to get better. Some symptoms like headache may go away immediately.

Q. What are the risks of the SVC stent procedure?

A. Any procedure involving blood vessels has a risk of bleeding. The risk of serious bleeding occurs is about 1%. Occasionally the stent can block later causing the symptoms to return. Usually this is treated by inserting another SVC stent.

Q. Are there alternatives to SVC stenting?

A. The blockage of the blood vessels in the upper chest is sometimes best treated with an SVC stent and sometimes best treated with radiotherapy or chemotherapy. (Radiotherapy is treatment with x-rays and chemotherapy is treatment with drugs.)

Q. What are the benefits of SVC stenting?

A. Your symptoms may improve more quickly than with other treatments and SVC stenting has fewer side effects than radiotherapy and chemotherapy. However your doctor may recommend further treatment with radiotherapy or chemotherapy in order to treat the growth once the blockage has been relieved by the stent.