Non-surgical reduction of the myocardial septum

Understanding NICE guidance – information for people considering the procedure, and for the public

February 2004
Contents

About this information 4
About non-surgical reduction of the myocardial septum 5
What has NICE decided? 8
What the decision means for you 9
Further information 10
About this information

This information describes the guidance that the National Institute for Clinical Excellence (NICE) has issued to the NHS on a procedure called non-surgical reduction of the myocardial septum. It is not a complete description of what is involved in the procedure – the patient’s healthcare team should describe it in detail.

NICE has looked at whether non-surgical reduction of the myocardial septum is safe enough and works well enough for it to be used routinely for the treatment of hypertrophic obstructive cardiomyopathy.

To produce this guidance, NICE has:

- looked at the results of studies on the safety of non-surgical reduction of the myocardial septum and how well it works
- asked experts for their opinion
- asked the views of the organisations that speak for the healthcare professionals and the patients and carers who will be affected by this guidance.

This guidance is part of NICE’s work on ‘interventional procedures’ (see ‘Further information’ on page 10).
About non-surgical reduction of the myocardial septum

In people with hypertrophic obstructive cardiomyopathy (HOCM for short), the heart muscle has become thicker than normal. This can affect the ability of the heart to pump blood properly. The thickening is usually most severe in the wall between the right and left lower chambers of the heart (the wall is known as the septum, and the lower chambers are called the ventricles). People with HOCM often have chest pain, shortness of breath, palpitations (which is where the person is abnormally aware of their heartbeat) and fainting. People with HOCM are more likely to have heart attacks or abnormal heart rhythms than people with healthy hearts.

Most people with HOCM are treated with medicines. Other treatments are used if people still have symptoms despite the medicines. The most common is an operation to remove some of the muscle between the ventricles (this is known as a ventricular septal myotomy-myectomy). The aim is to widen the exit from the ventricles, allowing blood to flow more easily. This type of operation is known as open surgery because it involves opening up the chest. An artificial heart-lung machine is used to keep the blood circulating through the body while the heart is being operated on.
Non-surgical reduction of the myocardial septum does not involve opening the chest or using an artificial heart-lung machine. A fine tube (called a catheter) is put into an artery. The tube is moved along the artery and into the heart. The doctor uses X-rays for guidance. A small amount of alcohol is injected through the catheter into the septum. The alcohol destroys part of the muscle in the septum, which then becomes thinner. As a result, the blood is able to flow more normally.

How well it works

What the studies said

The studies NICE looked at showed that non-surgical reduction of the myocardial septum works well in the short term. In three studies, patients had improved blood flow from the heart after they’d had the procedure. This improvement was about the same or better than the improvement in patients who’d had open surgery. In these studies the numbers of patients who suffered from severe breathlessness and fainting spells was also reduced after the procedure. However, there was not much known about what happens to patients in the long term.
What the experts said

The experts thought that the procedure was a good alternative to open surgery.

Risks and possible problems

What the studies said

In the studies the most common problem was the need to have an artificial pacemaker after the procedure. A pacemaker is a small battery-driven device that sends out electrical signals to keep the heartbeat regular. In one study, 9 patients out of 41 needed a pacemaker after having the procedure.

In the same study, 1 of the 41 patients died because of the procedure.

What the experts said

The experts thought that 1 out of every 10 patients would need to have a pacemaker after having the procedure. The experts considered that the procedure was safe when the doctors who did it were experienced and when it was done in a suitable specialist unit.
What has NICE decided?

NICE has considered the evidence on non-surgical reduction of the myocardial septum. It has recommended that when doctors use it for people with HOCM, they should be sure that:

- the patient understands what is involved and agrees (consents) to the treatment, and
- the results of the procedure are monitored.

NICE has also said that the procedure should only be done in specialist units by specially trained doctors. The British Cardiovascular Intervention Society has agreed to produce standards for training.
What the decision means for you

Your doctor may have offered you non-surgical reduction of the myocardial septum. NICE has considered this procedure because it is relatively new. NICE has decided that the procedure is safe enough and works well enough for use in the NHS. Nonetheless, you should understand the benefits and risks of non-surgical reduction of the myocardial septum before you agree to it. Your doctor should discuss the benefits and risks with you. Some of these benefits and risks may be described above.
Further information

You have the right to be fully informed and to share in decision-making about the treatment you receive. You may want to discuss this guidance with the doctors and nurses looking after you.

You can visit the NICE website (www.nice.org.uk) for further information about the National Institute for Clinical Excellence and the Interventional Procedures Programme. A copy of the full guidance on non-surgical reduction of the myocardial septum is on the NICE website (www.nice.org.uk/IPG040guidance), or you can order a copy from the website or by telephoning the NHS Response Line on 0870 1555 455 and quoting reference number N0435. The evidence that NICE considered in developing this guidance is also available from the NICE website.

Date: February 2004