Single-incision laparoscopic cholecystectomy

Information for the public
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What has NICE said?

Single-incision laparoscopic cholecystectomy is safe enough and works well enough for use in the NHS.

Cholecystectomy means removal of the gallbladder for several conditions, including gallstones. This procedure should only be done by surgeons with special expertise and training in single-incision cholecystectomy.

What does this mean for me?

Your health professional should fully explain what is involved in having this procedure and discuss the possible benefits and risks with you. You should also be told how to find more information about the procedure. All of this should happen before you decide whether you want to have this procedure or not.

The condition

Gallstones are common and form inside a small pouch-like organ called the gallbladder, which stores digestive fluid (bile) from the liver. They do not cause any symptoms in most people, but can sometimes cause problems such as pain, feeling and being sick, jaundice and gallbladder inflammation.
The standard treatment for problematic gallstones is surgical removal of the gallbladder, usually by keyhole surgery through several small cuts made in the abdomen. Sometimes open surgery, through a larger cut, is necessary.

NICE has looked at using single-incision laparoscopic cholecystectomy as another treatment option.

NHS Choices and NICE’s information for the public about gallstone disease may be a good place to find out more.

The procedure

The medical name for this procedure is 'single-incision laparoscopic cholecystectomy'. Cholecystectomy means the surgical removal of the gallbladder. In this procedure, only 1 cut is usually needed, most often below the belly button. The aim is to minimise scarring, reduce pain and wound problems, and speed up recovery. You will usually be given a general anaesthetic. A laparoscope (a thin flexible tube for looking inside the body) and other special instruments are inserted through the cut and the gallbladder is then removed through the cut. If the main bile-carrying tube (the 'common bile duct') needs to be examined in more detail, other cuts may have to be made.

Benefits and risks

When NICE looked at the evidence, it decided that the procedure is safe enough and works well enough for use in the NHS. The 7 studies that NICE looked at involved a total of 7800 patients.

Generally, compared with the multiple-incision approach, they showed the following benefits:

- less pain for up to 8 hours after the operation
- less scarring.

They also showed:

- no increase in the number of operations that had to be changed to open surgery compared with the multiple-incision approach, although there was an increase in the need to use extra surgical instruments
- no increase in the amount of blood lost during the operation.
The studies showed that the risks of single-incision laparoscopic cholecystectomy included:

- injury to the bile duct
- hernia at the site of the surgery
- a hole in the gallbladder in 12% of patients
- unremoved gallstones in less than 1% of patients
- infection of the wound
- short-term bruising around the wound
- redness at the site of the surgery in 4% of patients
- bleeding under the skin in less than 1% of patients
- swelling in 1% of patients
- kidney failure in 1 patient
- bowel blockage in 2 patients.

If you want to know more about the studies, see the guidance. Ask your health professional to explain anything you don't understand.

Questions to ask your health professional

- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the procedure?
• What happens if something goes wrong?

• What may happen if I don't have the procedure?

About this information

NICE interventional procedures guidance advises the NHS on the safety of a procedure and how well it works.

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