NICE guidance

Laparoscopic pyeloplasty

Interventional procedures guidance
Published: 24 March 2004

www.nice.org.uk/guidance/ipg46

1 Guidance

1.1 Current evidence on the safety and efficacy of laparoscopic pyeloplasty appears adequate to support the use of this procedure, provided that the normal arrangements are in place for consent, audit and clinical governance.

1.2 Clinicians undertaking this procedure should have adequate training before performing the technique. The British Association of Urological Surgeons has agreed to produce standards for training.

2 The procedure

2.1 Indications

2.1.1 Pelviureteric junction (PUJ) obstruction occurs when the connection between the renal pelvis and the ureter is narrow or tight. When this occurs, urine passing from the kidney to the ureter can not drain easily and accumulates, causing enlargement of the renal pelvis

(hydronephrosis).

2.1.2 The standard intervention for PUJ obstruction is open pyeloplasty. There are several different ways to approach the kidney to perform this operation. These include a flank incision, a subcostal incision, a transabdominal approach, or an incision in the back.

2.2 Outline of the procedure

2.2.1 The purpose of the procedure is to refashion the narrowed portion of the PUJ and attach it to the ureter in a way that allows easy drainage of urine through the ureter. This procedure has the same goal as open pyeloplasty but uses the laparoscopic approach. Laparoscopy involves making three or four small incisions through which the operation is carried out. A stent may be inserted after the operation, which is later removed.

2.3 Efficacy

2.3.1 No randomised studies were identified. One of the non-randomised, comparative studies looking at laparoscopic pyeloplasty versus open pyeloplasty found that 41 out of 42 patients (98%) who had the laparoscopic procedure had no obstruction at follow-up, compared with 33 out of 35 patients (94%) who had the open procedure. Of the 42 patients treated laparoscopically, 26 (62%) were pain-free and 12 (29%) had a significant reduction in flank pain postoperatively. Of the 35 patients who had the open procedure, 21 (60%) were pain-free and 11 (31%) had a significant reduction in flank pain postoperatively. For more details, refer to the Sources of evidence section.

2.3.2 The Specialist Advisors expressed no concerns about the efficacy of this procedure. One Advisor, however, commented on the lack of randomised comparisons of open versus laparoscopic procedures, and a scarcity of long-term follow-up data.

2.4 Safety

2.4.1 Few complications were reported in the studies identified. In some comparative studies obstruction after stent removal, stent migration and pyelonephritis were reported as occasional complications, however these complications were reported at similar levels in patients having open surgery. For more details, refer to the Sources of evidence section.

2.4.2 One Specialist Advisor considered the risks of this procedure to be similar to those expected with conventional open surgery: infection, failure to correct obstruction and bleeding. This Advisor also noted that the usual safety issues associated with laparoscopic surgery applied, as well as the effects of a prolonged procedure, and the need to convert to open surgery.

2.5 Other comments

2.5.1 It was noted that the procedure can be lengthy.

Andrew Dillon
Chief Executive
March 2004

3 Further information

Sources of evidence

The evidence considered by the Interventional Procedures Advisory Committee is described in the following document.

'Interventional procedure overview of laparoscopic pyeloplasty', November 2002.

Information for patients

NICE has produced information on this procedure for patients and carers. It explains the nature of the procedure and the guidance issued by NICE, and has been written with

patient consent in mind.

4 About this guidance

NICE interventional procedure guidance makes recommendations on the safety and efficacy of the procedure. It does not cover whether or not the NHS should fund a procedure. Funding decisions are taken by local NHS bodies after considering the clinical effectiveness of the procedure and whether it represents value for money for the NHS. It is for healthcare professionals and people using the NHS in England, Wales, Scotland and Northern Ireland, and is endorsed by Healthcare Improvement Scotland for implementation by NHSScotland.

This guidance was developed using the NICE interventional procedure guidance process.

We have produced a summary of this guidance for patients and carers. Information about the evidence it is based on is also available.

Changes since publication

28 January 2012: minor maintenance.

Your responsibility

This guidance represents the views of NICE and was arrived at after careful consideration of the available evidence. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. This guidance does not, however, override the individual responsibility of healthcare professionals to make appropriate decisions in the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this guidance should be interpreted in a way which would be inconsistent with compliance with those duties.

Copyright

Contact NICE

National Institute for Health and Clinical Excellence
Level 1A, City Tower, Piccadilly Plaza, Manchester M1 4BT

www.nice.org.uk
nice@nice.org.uk
0845 033 7780

Endorsing organisation

This guidance has been endorsed by Healthcare Improvement Scotland.