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NHS
National Institute for Clinical Excellence

Endoscopic division of epidural adhesions

1 Guidance

1.1 Current evidence on the safety and efficacy of endoscopic division of epidural adhesions does not appear adequate for this procedure to be used without special arrangements for consent and for audit or research.

1.2 Clinicians wishing to undertake endoscopic division of epidural adhesions should take the following actions.

- Inform the clinical governance leads in their Trusts.
- Ensure that patients understand the uncertainty about the procedure's safety and efficacy and provide them with clear written information. Use of the Institute's *Information for the Public* is recommended.
- Audit and review clinical outcomes of all patients having endoscopic division of epidural adhesions.

1.3 Publication of safety and efficacy outcomes will be useful in reducing the current uncertainty. The Institute may review the procedure upon publication of further evidence.

2 The procedure

2.1 Indications

2.1.1 Endoscopic division of epidural adhesions is used to treat lower back pain, particularly when radiculopathy (a disorder of the spinal nerve roots) is present.

2.1.2 Lower back pain with radiculopathy is often treated conservatively. This may include a combination of rest, medication (usually non-steroidal anti-inflammatory drugs), a spinal brace or lumbar support, and a home exercise or structured physiotherapy programme. Surgery may be used if symptoms persist after conservative treatment.

2.2 Outline of the procedure

2.2.1 A needle is advanced into the sacral canal, through which a guide wire is inserted and advanced cranially. The needle is replaced with an introducer sheath, through which an endoscope is introduced. Saline is flushed intermittently through the system to distend the sacral epidural space. The epidural space is examined with the endoscope, which is then used to divide or mobilise epidural adhesions and sometimes to administer drugs to inflamed tissue. There is a range of endoscopic epidural procedures, including direct injection of steroids, physiological testing, needle examinations, fluoroscopy and discography; the most common clinical endoscopic epidural procedure is division of adhesions. For more details, refer to the Sources of evidence (see overleaf).

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This guidance is written in the following context:
This guidance represents the view of the Institute which was arrived at after careful consideration of the available evidence. Health professionals are expected to take it fully into account when exercising their clinical judgement. This guidance does not, however, override the individual responsibility of health professionals to make appropriate decisions in the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Interventional procedures guidance is for health professionals and people using the NHS in England, Wales and Scotland.

2.3 Efficacy

2.3.1 The studies identified were small and uncontrolled. Some measures used in the studies to assess outcomes, such as scores of pain and function, were of unknown validity. Two of the studies reported satisfactory pain relief or pain improvement in 35% (7/20 in both studies) of patients. One of these studies reported unchanged pain in 50% (10/20) and worsened pain in 15% (3/20) of patients. For more details, refer to the Sources of evidence (see right).

2.3.2 One Specialist Advisor noted that there was no randomised evidence to show that the procedures were efficacious.

2.4 Safety

2.4.1 The main complications reported in the studies were: intraoperative pain 21% (5/24); puncture of the dural sac 13% (3/24); saline leak from the sacral hiatus 5% (2/38); unnoticed vein perforation leading to subcutaneous extravasation of fluid 5% (1/20); and transient paraesthesia 4–5% (1/24 to 2/38). For more details, refer to the Sources of evidence (see right).

2.4.2 The main safety concerns listed by the Specialist Advisors were neurological damage, epidural haematoma, damage to the nerve roots or cauda equina, infection and bleeding.

2.5 Other comments

2.5.1 The Advisory Committee noted that laser is sometimes used to divide adhesions, and observed that the use of laser energy in the epidural space raised potential safety concerns.

3 Further information

3.1 A randomised controlled trial into the effectiveness of epiduroscopically guided steroid injections compared with caudal steroid injection is currently being conducted by AK Dashfield of Derriford Hospital in Plymouth. It was scheduled for completion in April 2003, but the results have not yet been published.

Andrew Dillon
Chief Executive
September 2004

Information for the Public

The Institute has produced information describing its guidance on this procedure for patients, carers and those with a wider interest in healthcare. It explains the nature of the procedure and the decision made, and has been written with patient consent in mind. This information is available, in English and Welsh, from www.nice.org.uk/IPG088publicinfo

Sources of evidence

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

Interventional procedures overview of endoscopic division of epidural adhesions, October 2002

Available from: www.nice.org.uk/ip086overview

Ordering information
Copies of this guidance can be obtained from the NHS Response Line by telephoning 0870 1555 455 and quoting reference number N0659. *Information for the Public* can be obtained by quoting reference number N0660 for the English version and N0661 for a version in English and Welsh.

The distribution list for this guidance is available on the NICE website at www.nice.org.uk/IPG088distributionlist

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