

Extracorporeal shockwave lithotripsy for calcific tendonitis (tendinopathy) of the shoulder

1 Guidance

- 1.1 Current evidence on the safety and efficacy of extracorporeal shockwave lithotripsy for calcific tendonitis of the shoulder appears adequate to support the use of the procedure, provided that normal arrangements are in place for consent, audit and clinical governance.

2 The procedure

2.1 Indications

- 2.1.1 Extracorporeal shockwave lithotripsy (ESWT) is used to treat calcific tendonitis, where crystalline calcium phosphate is deposited in a tendon. This most commonly occurs in the shoulder joint, specifically in the supraspinatus tendon of the rotator cuff. When calcific tendonitis is symptomatic, it may present as chronic, relatively mild pain in the shoulder, with sporadic episodes of pain radiating down the arm or to the neck, with mechanical symptoms or with severe acute pain due to an inflammatory response.
- 2.1.2 Treatment for calcific tendonitis includes non-steroidal anti-inflammatory drugs, corticosteroids, physiotherapy, aspiration or lavage.
- 2.1.3 For patients refractory to these approaches, open or arthroscopic shoulder surgery may be offered. ESWT is a non-invasive alternative to these types of surgery.

2.2 Outline of the procedure

- 2.2.1 ESWT involves giving controlled, short-duration sonic pulses to produce transient pressure disturbances, which fragment calcific deposits.
- 2.2.2 ESWT is an established technique for the treatment of renal calculi.

2.3 Efficacy

- 2.3.1 Four studies all showed an increase in function and a reduction of pain, but the effect of the dose of energy used on efficacy outcomes is unclear. For more details refer to the sources of evidence below.
- 2.3.2 The Specialist Advisors considered that the efficacy of ESWT is uncertain, particularly in relation to the dose of energy used. There are no registries and no trials are currently being performed.

2.4 Safety

- 2.4.1 Few complications were reported in the reviewed literature, and the most common was subcutaneous haematoma. It is not known whether this is because complications are uncommon or because complications were not well reported in the studies reviewed. For more details refer to the sources of evidence below.

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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.

- 2.4.2 The Specialist Advisors thought that pain during the procedure was the main potential adverse effect. They stated that the severity of the pain varied, but that studies showed that more than 80% of patients experienced significant pain. A single case of aseptic necrosis of the humeral head was reported by one Specialist Advisor.

2.5 Other comments

- 2.5.1 The occurrence of serious complications of extracorporeal shockwave lithotripsy should be reported to the National Patient Safety Agency (NPSA).

Andrew Dillon
Chief Executive
November 2003

Information for the Public

NICE 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 from www.nice.org.uk/IPG021publicinfoenglish and in English and Welsh from www.nice.org.uk/IPG021publicinfowelsh.

Sources of evidence

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

Interventional procedure overview of extracorporeal shockwave lithotripsy for calcific tendonitis, November 2002.

Available from: www.nice.org.uk/IP148overview

Ordering information

Copies of this guidance can be obtained from the NHS Response Line by telephoning 0870 1555 455 and quoting reference: N0354. *Information for the Public* can be obtained by quoting reference number N0355 for the English version and N0356 for a version in English and Welsh.

The distribution list for this guidance is available on the NICE website at URL www.nice.org.uk/IPG021distributionlist

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