National Institute for Health and Clinical Excellence

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

Issued: November 2003

NICE interventional procedure guidance 21

www.nice.org.uk/ipg21

Contents

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 section.

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 section.

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

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 extracorporeal shockwave lithotripsy for calcific tendonitis', November 2002.

Information for patients

NICE has produced information on this procedure for patients and carers ('Understanding NICE guidance'). 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

31 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.

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