NICE guidance

Extracorporeal shockwave therapy for refractory greater trochanteric pain syndrome

Interventional procedures guidance
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www.nice.org.uk/guidance/ipg376

1 Guidance

1.1 Evidence on the efficacy and safety of extracorporeal shockwave therapy (ESWT) for refractory greater trochanteric pain syndrome is limited in quality and quantity. Therefore this procedure should only be used with special arrangements for clinical governance, consent and audit or research.

1.2 Clinicians wishing to undertake ESWT for refractory greater trochanteric pain syndrome 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. In particular, patients should be informed about the possibility of pain during and after treatment, and the risk that symptoms may worsen. They should be provided with clear written information. In addition, the use of NICE's information for patients ('Understanding NICE guidance') is recommended.
- Audit and review clinical outcomes of all patients having ESWT for refractory greater trochanteric pain syndrome (see section 3.1).

1.3 This procedure should only be carried out by clinicians with specific training in the administration of ESWT for refractory greater trochanteric pain syndrome and in accordance with manufacturer's instructions.

1.4 NICE encourages further research into ESWT for refractory greater trochanteric pain syndrome. Research studies should clearly describe patient selection, imaging, and treatment protocols. Outcomes should include functional and quality-of-life scores with at least 1 year of follow-up.

2 The procedure

2.1 Indications and current treatments

2.1.1 Greater trochanteric pain syndrome is a disorder that affects the (lateral) side of the hip or hips. Greater trochanteric pain may be associated with inflammation of the trochanteric bursa (also known as trochanteric bursitis). The trochanteric bursa is a small fluid-filled sac that separates the greater trochanter of the femur and the overlying fascia lata to allow smooth movement. Greater trochanteric pain may also be associated with direct injury, tendon damage, infection, differences in leg length or hip-replacement surgery.

2.1.2 Greater trochanteric pain syndrome is usually managed conservatively with rest, physiotherapy, anti-inflammatory medication and corticosteroid injections (often combined with local anaesthesia). In patients refractory to conservative treatments, surgical options such as supratrochanteric fasciotomy or trochanteric bursectomy may be used.

2.2 Outline of the procedure

2.2.1 Extracorporeal shockwave therapy (ESWT) is a non-invasive treatment in which a device is used to pass acoustic shockwaves through the skin to the affected area. Ultrasound guidance can be used to assist with positioning of the device.

2.2.2 ESWT may be applied in one or several sessions. Local anaesthesia may be used because high-energy ESWT can be painful. Different energies and frequencies of shockwaves can be used.

2.2.3 The mechanism by which this therapy might have an effect on greater trochanteric pain syndrome is unknown.

> Sections 2.3 and 2.4 describe efficacy and safety outcomes from the published literature that the Committee considered as part of the evidence about this procedure. For more detailed information on the evidence, see the overview.

2.3 Efficacy

2.3.1 A non-randomised comparative study of 229 patients treated by several ESWT sessions (n = 78), a single local corticosteroid injection (n = 75) or 'home training' (n = 76) reported that the percentage of patients who had either recovered completely or had improved symptoms (assessed using a 6-point Likert scale) following ESWT were 13% (10/78) at 1 month, 68% (53/78) at 4 months and 74% (58/78) at 15 months. In the corticosteroid injection group, 75% (56/75) of patients reported complete recovery or improved symptoms at 1 month, 51% (38/75) at 4 months and 48% (36/75) at 15 months. In the home-training group, 7% (5/76) of patients reported complete recovery or improved symptoms at 1 month, 41% (31/76) at 4 months and 80% (61/76) at 15 months.

2.3.2 The non-randomised comparative study of 229 patients reported significantly higher mean pain scores (measured on a visual analogue scale from 0 to 10; 10 indicates worst conceivable pain) in the ESWT (5.6) and the home-training groups (5.9) compared with the steroid injection

group (2.2) at 1 month ($p < 0.001$). However, at 15 months the scores were 2.4 after ESWT, 2.7 after home training and 5.3 after injection ($p < 0.001$). All groups had similar pain scores at baseline (range 5.8–6.3).

2.3.3 The non-randomised comparative study of 229 patients reported that 64% (50/78) of patients in the ESWT group, 49% (37/75) in the steroid injection group and 34% (26/76) in the home-training group had returned to previous sporting or recreational activity at 4 months (ESWT vs home training, $p < 0.001$).

2.3.4 The Specialist Advisers listed key efficacy outcomes as recovery measured on a 6-point Likert scale, severity of pain measured using a visual analogue scale and improved function.

2.4 Safety

2.4.1 Increased pain for more than 1 day was reported in 3% (2/78) of patients treated by ESWT, 24% (18/75) treated by steroid injection and 20% (15/76) treated with home training in the non-randomised comparative study of 229 patients.

2.4.2 Skin irritation during the first month of follow-up was reported in 33% (26/78) of patients treated by ESWT and 3% (2/75) treated by steroid injection in the non-randomised comparative study of 229 patients.

2.4.3 The Specialist Advisers considered theoretical adverse events to include pain, tendon rupture, haematoma and nerve damage.

2.5 Other comments

2.5.1 NICE received 30 completed questionnaires from patients treated by the procedure. Thirty percent (9/30) stated that they would not have ESWT again; 3 of these patients reported that the procedure had made their condition worse with increased pain and decreased mobility. The remaining 70% (21/30) of patients would recommend this procedure to others.

3 Further information

3.1 This guidance requires that clinicians undertaking the procedure make special arrangements for audit. NICE has identified relevant audit criteria and has developed an audit tool (which is for use at local discretion).

3.2 For related NICE guidance see our website.

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. Tools to help you put the guidance into practice and information about the evidence it is based on are also available.

Changes since publication

2 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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Endorsing organisation

This guidance has been endorsed by Healthcare Improvement Scotland.

Accreditation