

Specific Question:

In adults with greater trochanteric pain syndrome (GTPS) is an injection of local anaesthetic and corticosteroid equally clinically and cost effective at reducing pain and improving function than a physiotherapy led exercise regime?

Clinical bottom line

The best available evidence from one randomised control trial that included pain and global improvements, found that education and exercise delivered by a physiotherapist (involving a tendon loading program) resulted in higher rates of patient reported global improvement and lower pain intensity compared to an ultra sound guided corticosteroid injection (CSI) or wait and see at eight weeks. At fifty-two weeks' education and exercise delivered by a physiotherapist performed better at global improvement than CSI and wait and see but no better in pain compared with CSI.

There was no analysis for cost effectiveness.

Why is this important?

GTPS has a prevalence of 10-25% and is experienced by one in every four women aged over 50 (Segal et al 2007). Its impact on quality of life and reported disability is equivalent to severe hip osteoarthritis (Fearon et al 2014).

There is clinical inconsistency amongst clinicians on the terminology used and management approach of GTPS. Often called trochanteric bursitis, imaging and surgical procedures have shown a primary pathology of insertional gluteus medius and minimus tendinopathy with bursal distention an associated finding (Kong et al 2007). In addition to this, the clinical knowledge summaries (CKS) prefer the term GTPS as the trochanteric bursae play a smaller role than was previously thought and inflammation is not always present . <https://cks.nice.org.uk/greater-trochanteric-pain-syndrome-trochanteric-bursitis#!backgroundSub> Therefore, it is important that clinicians are using the same diagnostic terminology to aid our patients understanding of their condition and subsequently this may help improve the management approach.

There is substantial evidence that a tendon loading program can be an effective form of treatment for tendinopathy's and that this approach should be applied to GTPS. Particularly when the use of steroid injections can result in poorer long term outcomes and greater re-occurrence at 12 months (Coombes 2013), and increase GP visits and repeat injections (Rhon et al 2014)

<https://www.keele.ac.uk/media/keeleuniversity/ri/primarycare/Injections%20HARM%20017%20V1%20-%20Final.pdf>

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Musculoskeletal Research Facilitation Group (CAT Group)
Date: 24/01/2019

In summary, this piece of work will look at what diagnostic terminology and treatment approaches to use for the management of GTPS to improve patient care and NHS resources.

Search timeframe (2008-2018)

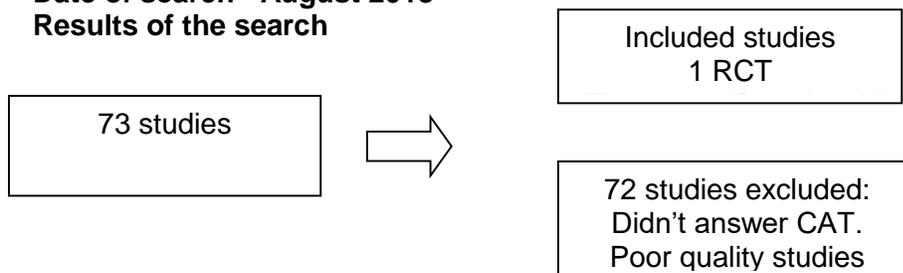
Inclusion Criteria

| | Description | Search terms |
|---------------------------------|--|--|
| Population and Setting | Adults of 18 years old with pain around the greater trochanter (lateral thigh) | Pain over lateral hip/greater trochanteric pain syndrome (GTPS)/ trochanteric pain syndrome (TPS)/ tendinopathy/ glut medius syndrome/ bursitis/lateral thigh pain |
| Intervention or Exposure | Clinically or ultrasound guided greater trochanteric injection of local anaesthetic and corticosteroid | Local anaesthetic and Triamcinolone or depo-medrone or corticosteroid |
| Comparison, if any | Exercise regime supervised by physiotherapist, may include tendon loading and stretches. | Tendon loading, Exercises, stretches |
| Outcomes of interest | Pain Function Cost effectiveness | Pain, function and cost effectiveness |
| Types of studies | RCTs, SRs | |

Routine Databases Searched

Clinical Knowledge Summaries, PEDro, Clinical Evidence, TRIP, HTA, The Cochrane Library, Embase, Joanna Briggs Institute, Web of science, Pub med, OT seeker, Rehabdata, Amed, Cinahl.

Date of search- August 2018
Results of the search



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Table 1- Detail of included studies

| First Author, year and type of study | Population and setting | Intervention or exposure tested | Study results | Assessment of quality and comments |
|--------------------------------------|--|--|--|---|
| Mellor et al (2018) RCT | Volunteers aged 35-70yrs, with lateral hip pain more than 3/12. VAS 4/10. Diagnosis confirmed on clinical assessment and MRI Community setting Brisbane and Melbourne, Australia | 3 Arms: 1) Education and exercise led physiotherapy program of 4 sessions over 8/52. 2) Ultrasound guided corticosteroid injection 3) Wait and see approach | Education and exercise did better than CSI and wait and see at 8/52 on the pain and global improvement. At 52 weeks' education and exercise did better in global improvement than CSI and wait and see. but there was no difference in pain between the CSI and education and exercise, but both were better than wait and see. | Good quality study. Based in Australia. Randomisation 'Ok' but allocation via sealed envelope. Clear inclusion exclusion criteria. Outcomes were clear, valid and reliable. Power calculations, ITT included. Needed 67 per group, only managed this in one group at 52 weeks. MRI used alongside clinical diagnosis? Cost to NHS. Not common practice to use USGI for 1 st line treatment. Not common practice to have 14 session of physiotherapy in UK. |

Summary

The RCT by Mellor et al (2018) is of good quality and shown that a physiotherapy education and exercises based tendon loading program (Isee appendix 1) delivered over 8 weeks involving 14 sessions produced better global improvement and pain compared to ultra sound guided CSI and wait and see at 8/52. At 52 weeks' education and exercise is still better in global improvement than ultra sound guided CSI and wait and see, but is no different in pain compared to CSI.

Previous studies (Rompe et al 2009) which compared CSI to exercise for GTPS have not included a tendon loading program and have included exercises that we now know are likely to exacerbate the condition (compression/ stretching). This may explain why CSI provided better outcomes initially than traditional physiotherapy.

This study was conducted in Australia so could affect its generalisation. MRI scan was used alongside clinical tests (see appendix 1) which would have a cost implication to the NHS resources and prolong the patient journey which may not be necessary.

It is not common practice as first line of treatment to offer USGI for GTPS, as previous evidence found no difference between land marked and USGI on outcomes (Roddy et al 2014).

Implications for Practice/research

A physiotherapy led education and exercise tendon loading program should be offered as first line treatment for the management of GTPS in consonance with the best available evidence. Sufficient investment in physiotherapy is essential to help appropriately management GTPS. We cannot ignore the impact of education as an important outcome in pain and global improvement for patients and further research is needed in this area.

Infragraph gluteal tendinopathy

<https://www.bmj.com/content/361/bmj.k1662/submit-a-rapid-response>

What would you tweet? (140 characters)

Education and exercise delivered by a physiotherapist involving a tendon loading program should be the 1st line of treatment for GTPS as it provides better short and long term global improvements compared to USG CSI and wait and see. Would this change at your practice?

References

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Mellor R, Bennell, K, Grimaldi A, Nicolson P, Kasza J, Hodge P, Wajswelner H, Vicenzino B (2018) Education plus exercise versus corticosteroid injection use versus a wait and see approach on global outcomes and pain from gluteal tendinopathy: prospective, single blinded, randomised clinical trial. *British Medical Journal*; :361:k1662

Roddy E, Zwierska I, Hay EM, Jowett S, Lewis M, Stevenson K, van der Windt D, Foster NE; SUPPORT trial team. *BMC Musculoskelet Disord*. 2014 Mar 14;15:81. doi: 10.1186/1471-2474-15-81. Subacromial impingement syndrome and pain: protocol for a randomised controlled trial of exercise and corticosteroid injection (the SUPPORT trial).

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Appendices

Appendix 1

<https://bjsm.bmj.com/content/bjsports/52/22/1464/DC1/embed/inline-supplementary-material-1.pdf?download=true>