

Keele Critically Appraised Topic (CAT Form)

Clinical Question

In menopausal women with tendinopathy does the addition of HRT to usual physiotherapy care improve outcomes?



We cannot recommend the addition of HRT to improve outcomes of tendinopathy in post-menopausal ladies.

Clinical bottom line

There is currently limited high quality evidence, specific to this clinical question that would encourage a change in current practice to recommending HRT alongside usual physiotherapy care.

A well-constructed factorial randomised controlled trial in women with greater trochanteric pain syndrome (GTPS), identified that education and any form of exercise results in improvements of pain and function in post-menopausal women with greater trochanteric pain syndrome.

In the same trial there was possible association between greater improvement in patients with a BMI of under 25 who received HRT alongside exercise and education programmes compared to those who received placebo. This should be treated with caution due to low numbers at follow up resulting in an underpowered trial.

Why is this important?

There is a growing interest in the rehabilitation of post-menopausal ladies with musculoskeletal (MSK) related issues, particularly tendinopathy. This has led to the debate

suggesting if hormones are lacking after menopause does this lead to an increase prevalence of post-menopausal ladies with tendon problems.

This would suggest that a form of HRT alongside usual physiotherapy care may well aid in recovery times for this patient group.

Search timeframe

2000 to June 2023

Search criteria

Population Intervention Comparison Outcomes (PICO) themes	Description	Search terms
Population and Setting		Female Post-menopausal Tendinopathy GTPS (Greater trochanteric pain syndrome)
Intervention or Exposure		Hormone replacement therapy (HRT) HRT with usual physiotherapy care
Comparison, if any		Usual physiotherapy care that combines - Strengthening and/or stretching exercises Functional exercise programme Advice Self-management
Outcomes of interest		Pain reduction, Symptom improvement, Function, Quality of life,

		Activities of daily living
Types of studies		RCT's Systematic reviews

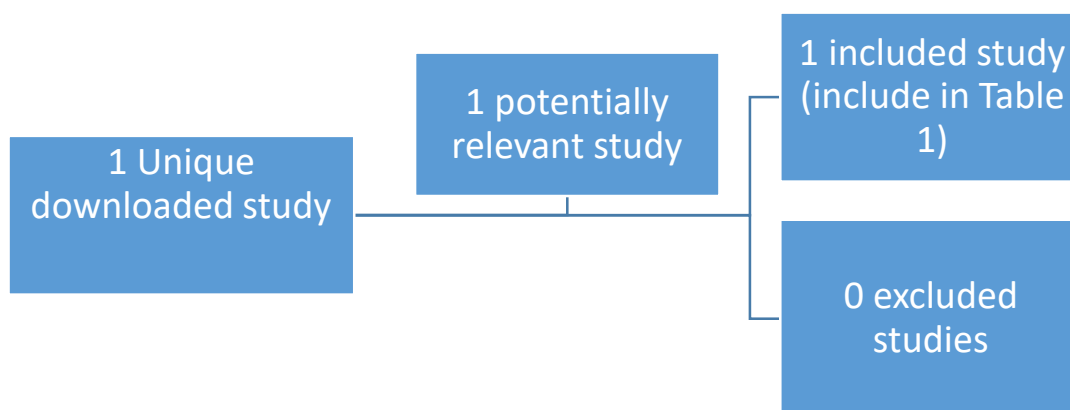
Databases searched

Clinical Knowledge Summaries, PEDro, BMJ Updates, Clinical Evidence, TRIP, Database, NICE, HTA, Bandolier, Cochrane Library, Medline, Cinahl, Embase, PsycInfo, Professional websites, Joanna Briggs Institute, Web of science, Sports discus and Pub med

Date of search

13th June 2023

Results of the search: include the number in each box



There was 1 unique downloaded study. There was 1 relevant study. There was 1 included and their critical appraisal is included in Table 1. There were 0 excluded studies.

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
Cowan et al 2022 RCT of factorial design 2x2	Post menopausal women with GTPS n=132 MSK clinics, Australia	HRT vs placebo HRT High load exercises vs low load exercises	Menopausal Hormone Therapy (MHT) or placebo combined with tendon-specific or sham exercise plus education reduced pain and increased function for this population. For women with a BMI <25, MHT with any exercise plus education was better than placebo. A targeted exercise or sham exercise strategy is effective when prescribed with education about avoiding gluteal tendon compression and load management.	A well conducted study of factorial design with a robust methodology. Results to be taken with caution as high drop out resulted in underpowered study. All participants improved over time reinforcing the importance of education and some form of exercise to manage GTPS.

Summary

There is currently a limited amount of high-quality evidence specific to this clinical question that would change current practice to recommending HRT alongside usual physiotherapy care.

This is a growing area of research that will be revisited as a CAT question at a future date.

Implications for practice

We cannot currently recommend the use of HRT to improve the outcomes of tendinopathy in post-menopausal women.

Further studies with higher numbers may be beneficial that stratify weight and include longer follow up outcome measure collection.

We recommend increasing knowledge of presenting signs and symptoms of post-menopausal ladies with lower hormone levels and encouraging engagement with their GP to help with management.

What would you post on X (previously Twitter)?




Based on the current literature, we cannot recommend the addition of HRT to improve outcomes of tendinopathy in post menopausal ladies. Exercise and education remains best practice

References

Cowan, R.M., Ganderton, C.L., Cook, J., Semciw, A.I., Long, D.M. and Pizzari, T. (2021). Does Menopausal Hormone Therapy, Exercise, or Both Improve Pain and Function in Postmenopausal Women With Greater Trochanteric Pain Syndrome? A 2 × 2 Factorial Randomized Clinical Trial. *The American Journal of Sports Medicine*, p.036354652110611. doi:<https://doi.org/10.1177/03635465211061142>.

Cowan, R.M., Ganderton, C.L., Cook, J., Semciw, A.I., Long, D.M. and Pizzari, T. (2021). Does Menopausal Hormone Therapy, Exercise, or Both Improve Pain and Function in Postmenopausal Women With Greater Trochanteric Pain Syndrome? A 2 × 2 Factorial Randomized Clinical Trial. *The American Journal of Sports Medicine*, p.036354652110611. doi:<https://doi.org/10.1177/03635465211061142>.

Please tick the box that best reflects your clinical bottom line and include the picture on page 1

CAT image	Evidence quality	Checkbox
	Good quality evidence to support use....	<input type="checkbox"/>
	Insufficient or poor quality evidence OR substantial harms suggest intervention used with caution after discussion with patient...	<input checked="" type="checkbox"/>
	No good quality evidence, do not use until further research is conducted OR Good quality evidence to indicate that harms outweigh the benefits....	<input type="checkbox"/>

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