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REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION FOR CHRONIC PROSTATITIS/CHRONIC PELVIC PAIN SYNDROME (CP/CPPS): A PROSPECTIVE PILOT STUDY

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Background and Aim

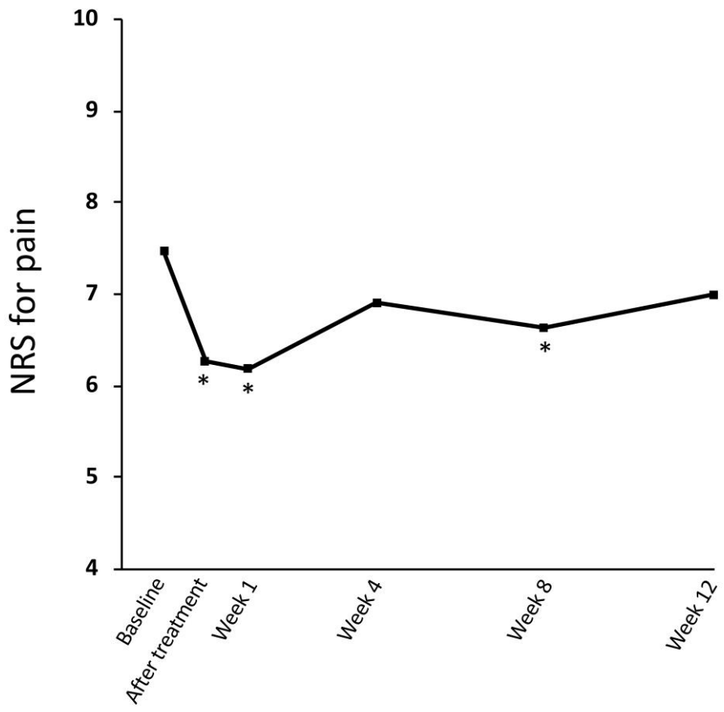
- Chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) is common among men with a lifetime prevalence of 10-14%. Urogenital pain is typically the most severe symptom and might severely deteriorate patients' quality of life and sexual function.
- Transcranial magnetic stimulation (rTMS) is a noninvasive neuromodulation technique in the treatment of different chronic pain syndromes and depression.
- The lack of treatment options for patients with CP/CPPS raises the need for new treatment modalities. Our aim was to study if rTMS would be effective, feasible and safe in CP/CPPS patients.

Patients and Methods

- Eleven patients (mean age 54,3 years, disease duration 9.2 (1.7-48.0) years) with treatment-resistant CP/CPPS were enrolled
- Navigated rTMS was performed for five consecutive days in 20-min sessions.
- Patients were evaluated at baseline, after treatment and at 1, 4, 8 and 12 weeks after the last session with questionnaires concerning pain (NRS, NIH-CPSI, SF-36), urinary symptoms (NIH-CPSI, DAN-PSS-1), quality of life (NIHCPSI, SF-36) and psychometrics (BDI). Telephone-based interviews were used to evaluate side-effects, subjective response and changes in drug consumption.

Results

- All patients completed the planned treatment and follow-up according to protocol. None of the patients experienced serious side-effects or significant pain increase during or after treatment. Mild transient tension headache reacting to oral pain medication was reported by two patients.
- Decrease in pain was observed with numeric rating scale (NRS) after the treatment, at one week and at eight weeks (p=0.019, p=0.006, p=0.042, Fig 1) and with National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI) pain domain at one week (p=0.04, Fig 2).
- Improvement in lower urinary tract symptoms (LUTS) was detected after treatment in NIHCPSI urinary domain (p[0.02) but not with DAN-PSS-1 at any time point. No significant changes in BDI was observed.
- Positive overall subjective response was reported by nine patients (82%) and six patients (55%) were able to reduce pain medication. Higher age was associated with decrease in NRS points after the treatment (R=0.605, p=0.048) and at 8 weeks (R=0.659, p=0.028) time-points.



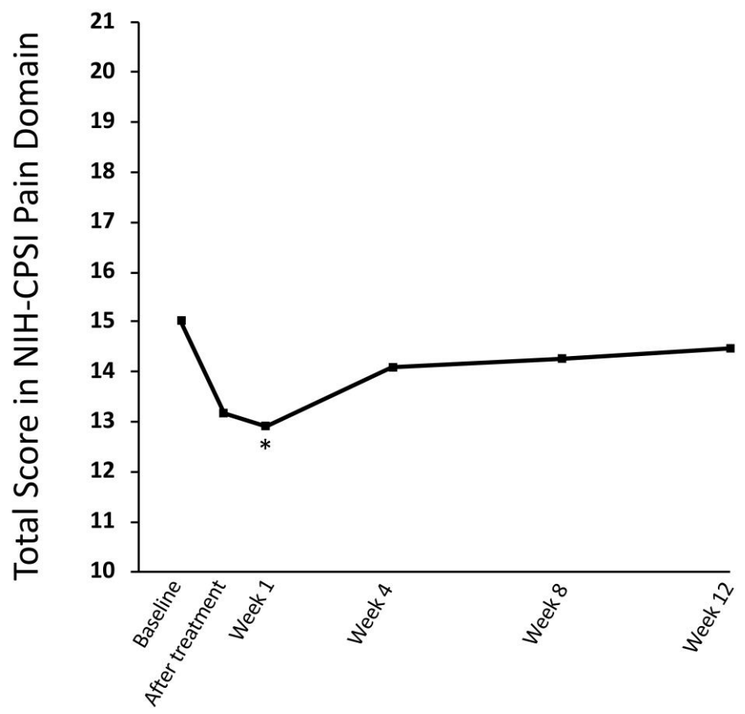


Fig. 1. Mean changes in NRS for pain at different time-points. Significant reduction in pain was observed after treatment and at one and eight weeks after treatment when compared to baseline in paired samples t-test with decrease of 1.2, 1.4 and 0.8 points respectively.

Fig. 2. Mean changes in total score in NIH-CPSI pain domain (Q1-4 in NIH-CPSI questionnaire, max points 21) at different time-points show significant response in pain reduction at one week when compared to baseline (2.1 point decrease, p=0.037).

Conclusions

rTMS for patients with CP/CPPS seems to be well tolerated and might be of interest in patients with chronic pelvic pain resistant to conventional treatment. These findings need yet to be confirmed with a randomized trial.