Development of a physiotherapeutic diagnostic algorithm for patients with “Chronic Pelvic Pain Syndrome” (CPPS)

Presentation of a diagnostic algorithm and a physiotherapeutic findings report-sheet with first results

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Introduction

According to the Guidelines on Chronic Pelvic Pain of the European Association of Urology (EAU) [1], an ‘interdisciplinary CPPS outpatient clinic’ at the University Medical Center Hamburg-Eppendorf was implemented. These guidelines highlight the necessity of physiotherapeutic assessment and focus on the investigation of myofascial trigger points (mTrP) and their pain sites [2]. In addition, CPPS seems to affect respiratory movements [3, 4] and endurance [5]. No standardized physiotherapeutic diagnosis tool specific for CPPS symptoms could be identified [6]. Thus, one goal for a physiotherapeutic CPPS consultation is to develop a quantitative diagnostic algorithm which is clinically plausible. We report the development of this algorithm and the first results describing its use.

Methods

Potentially relevant physiotherapeutic aspects for the diagnosis and treatment of CPPS patients were identified by a systematic literature search. The development of the diagnostic algorithm was based on these results and clinical experience.

In addition to a written protocol we developed a body- and pelvic floor muscle chart, in which the body and the layers of the pelvic floor muscles are shown and mTrP and tender points can be visualized. Sociodemographic data, regarding mTrP/tender points with pain sites and respiratory movements were collected. In our sample, we tested endurance using the 1-min sit-to-stand (STS) test [7].

Requirements for a physiotherapeutic diagnostic algorithm:
1. Myofascial tender- and trigger points (mTrP) and their pain sites [8]
2. Respiratory patterns [4, 7]
3. Bodychart for pain and scars
4. Endurance (1-min sit-to-stand (STS) test) [8]
5. Electronic health record information system
6. Information for all involved disciplines
7. Database capability for further trials
8. Feasibility in a resource limited professional life
9. Patient Acceptance

Results: Physiotherapeutic findings report-sheet

Figure 1: final version of the physiotherapeutic report-sheet

Figure 1 displays the revised, final version of the physiotherapeutic report-sheet (documentation). After identification and documentation of mTrP, respiratory movements and endurance in an electronic health record information system data is now available for all interdisciplinary CPPS specialists as well as for members of the research platform.

Out of the pilot study (‘From October 2012 to February 2015 136 patients were studied. 121 (88.7% female) patients fulfilled the inclusion criteria of the study’ see P20 C.Brunnah) data from a sub-sample (n = 75) of affected men (40%) and women was analyzed. The drawn sample had an average age of 56 (SD ± 17) years for women and 52 (SD ± 17) years for men. The average number of repetitions on the 1-min sit-to-stand (STS) test was 17 (SD=8) for women and 19 (SD=10) for men which is below the healthy norm for their age group. Women exhibit nearly double the number of tender points (M=14.5) (Stillness with pain but without radiation) compared to men (M=7.6) while the average number of mTrP (pain with radiation to other sites) was similar (women M=5.8 and men M=4). The number of trigger points that result in urge in this sample was small with an average number of 0.15. All participants showed an abdominal respiratory movement after a stress test, which also could be observed in the perineum in 64% of cases.

Discussion

Discussion: Assessment of relevant physiotherapeutic aspects offers a basis for advancements in CPPS specific therapy. The limited endurance of participants may be explained by fear avoidance beliefs [8-9], however this hypothesis must be tested in future studies. The small sample size for physiotherapeutic assessments we found in the literature should still be viewed critically.

The current findings are important for the development and implementation of a physiotherapeutic diagnostic algorithm in CPPS for men and women. These first results suggest it is a plausible algorithm for a standardized diagnosis in physical therapy and provides important basis for the evaluation of therapeutic effects in clinical trials. More high quality research is needed to develop and provide evidence based therapeutic approaches.

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