



Thiele massage as a therapeutic option for women with chronic pelvic pain caused by tenderness of pelvic floor muscles

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Abstract

Aims and objectives Musculoskeletal system has been found to be involved in genesis and perpetuation of chronic pelvic pain (CPP) and has strong evidences that up to 80% of women with CPP present dysfunction of the musculoskeletal system. In this study, we report a series of women with CPP caused by tenderness of pelvic floor muscles successfully treated with Thiele massage.

Methods Were included in this study six women with CPP caused by tenderness of the levator ani muscle that underwent transvaginal massage using the Thiele technique, over a period of 5 minutes repeated once a week for 4 weeks. After 1 month, the women returned for follow-up.

Results The median tenderness score for the six women evaluated was 3 at the first evaluation and 0 after 1 month of follow-up ($P < 0.01$). The mean Visual Analogue Scale and McGill Pain Index scores were 8.1 and 34, respectively, at the first evaluation, and 1.5 and 16.6 at follow-up ($P < 0.01$).

Conclusion Thiele massage appears to be very helpful for women with CPP caused by tenderness of the levator ani muscle. However, these results are preliminary and a larger number of women are necessary to obtain more conclusive results.

Introduction

Among women, chronic pelvic pain (CPP) is a highly prevalent (2–25%) clinical problem [1], with substantial costs [2] as well as social and marital repercussions [3]. CPP is defined as continuous or recurrent pain in the lower abdomen or pelvis lasting at least 6 months, not related to pregnancy, and sufficiently severe to interfere with the habitual activities of the patient. CPP excludes pain occurring exclusively in association with menstruation (dysmenorrhoea) or during sexual intercourse (dyspareunia).

Although the aetiology is often unknown, it may result from complex interactions among the gastrointestinal, urinary, gynaecologic, musculoskeletal, neurologic and endocrine systems as well as being influenced by psychological and sociocultural factors [4]. To date, few therapeutic modalities have been effective in relieving the symptoms of CPP, particularly over the long term

[5]. An interdisciplinary approach has therefore been recommended [6,7], both to diagnose the presumed primary aetiology and to diagnose and treat all the secondary factors associated with CPP.

In clinical practice, tenderness of pelvic floor muscles is frequently observed among women with CPP. In a retrospective study of medical records, Tu *et al.* observed that 22% of the women with CPP presented tenderness of the levator ani muscle [8]. In our experience, 34% of the last 200 women attended by our group had a definitive diagnosis of tenderness of pelvic floor muscles as the primary cause of CPP. Although tenderness of pelvic floor muscles may not be the primary cause of the clinical condition, they can contribute significantly to the worsening of pain and tension. Therefore, we decided to develop a physiotherapeutic treatment for these women using the Thiele massage, which is successfully applied as treatment of other diseases that causes changes in pelvic floor muscles.

Methods

This study was performed on six women with CPP caused by tenderness of pelvic floor muscles of more than 6-month duration and severe dyspareunia with mean age of 36 ± 9 years, body mass index of $26 \pm 5 \text{ kg m}^{-2}$, gestations median 2 (ranged 1–3), 2 episiotomy and 6 caesarean sections. These women were consecutively attended at the Hospital of the University of São Paulo. The study was approved by our Research Ethics Committee and all participants gave written informed consent.

All women included in the study always received clinical care from the same professionals. Women with pain that was localized exclusively in perineal skin or introitus such as vulvodynia and vaginism were excluded. Before clinical examination, each patient filled out a detailed form containing information about the characteristics of her pain and her personal history as well as completing the Beck Depression Index, Visual Analogue Scale, McGill Pain Index and Psychological General Well Being Index. The intensity of dyspareunia was classified as absent (absence of pain during the sexual relation), mild (tolerable pain, does not lead to the interruption of the sexual relation), moderate (intense pain sufficient to lead to the interruption of the sexual relation) and intense (pain that hinders the sexual relation) according to the limitation of sexual activity. Physical examination consisted of general evaluation, investigation of trigger points, inspection of the external genitalia, traditional bimanual pelvic examination and unidigital vaginal palpation. Women were submitted to vaginal palpation with one finger in order to identify tenderness of the levator ani muscle bilaterally. The tenderness of pelvic floor muscles was scored according to subject reactions: 0 – no pain, 1 – painful discomfort, 2 – intense pain (total score: 2). For a better discrimination between the muscles and other soft tissues, the subjects were examined in the lithotomy position, as suggested by several authors [9–11]. All subject evaluations were performed by two physical therapists who had worked together for 4 years and who performed an independent evaluation of the pelvic floor muscles and were blind to all clinical data and clinical findings previously obtained by the physicians.

After evaluation, the women underwent transvaginal massage using the Thiele technique, which consists of massage from origin to insertion along the direction of the muscle fibres with an amount of pressure tolerable to the subject [12], over a period of 5 minutes. This was repeated once a week for 4 weeks. All women were re-evaluated after a month of follow-up.

Results

At the first valuation, the tenderness score median in the six patients evaluate was 3. A month follow-up, the score median was 0 ($P < 0.01$). The mean of Visual Analogue Scale and McGill Pain Index scores at the first valuation were 8.1 and 34 respectively and in follow-up was 1.5 and 16.6 respectively ($P < 0.01$ for both). The Beck Depression Index and Psychological General Well Being Index median values at the first valuation were 15.5 (ranged 11–22) and 49 (ranged 35–82) respectively and in follow-up were 9 (ranged 6.5–14, $P < 0.01$) and 86 (ranged 66–97, $P < 0.05$) respectively.

Discussion

Our preliminary results are very promising once the women had a great improvement during treatment and after a month of follow-up. Additionally, after 3 months post treatment the women were interviewed to report how they were after this period and all women reported that they had no pain.

The benefit of Thiele massage as a method of pelvic floor muscle rehabilitation was reported. However, to our knowledge, this is the first report of its using in women with CPP; also, this technique is easy to learn and carries out no risk, women or their partners can learn and apply it, and the therapy may be accessible even to a woman who can not afford to attend a regular physical therapy rehabilitation program.

Nevertheless, it is important that studies can be continued to evaluate the long-term effects of Thiele massage on women with CPP caused by tenderness of pelvic floor muscles.

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