THE PROBLEMS OF NON-SPECIFIC PELVIC PAIN DIAGNOSIS IN WOMEN

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Abstract. The article describes the differential diagnosis of chronic pelvic pain in women, discusses terminology and the scheme of non-specific pelvic pain diagnosis. Non-specific pelvic pain (NsPP) is a type of chronic pelvic pain. It occurs in the absence of actual somatic pathology by analogy with the term “non-specific back pain”. The causes of NsPP are the trigger zones of skeletal muscles and ligaments of the pelvis. The authors examined 50 women with NsPP at the age of 20-40 years and revealed myogenic trigger zones in all women: in pelvic floor muscles, in the gluteal muscles, in femoral adductor muscles, in oblique abdominal muscles. Traditionally, these problems are diagnosed as pelvic floor syndrome or coccygodynia with the priority of vertebrogenic etiology of the disease. Although the current literature does not indicate the cause of non-specific pain in the back, it should be recognized that the term includes myogenic (myofascial) pain, as myofascial component plays a key role in NsPP along with central sensitization. In European countries NsPP syndrome is usually treated by urologists, and recommendations for the diagnosis and treatment of chronic pelvic pain include a modern description of pathophysiology and psychosocial aspects, as well as classification, diagnosis and treatment. In Russia it is usually treated by urologists and manual therapists. The diagnosis includes psychometric tests such as Visual Analogue Scale, Menstrual Distress Questionnaire, Pelvic Pain Questionnaire for Girls and Women, Vaginal Laxity Questionnaire, Dismenorrhea Daily Diary etc. The implementation of these tests in the Republic of Tatarstan requires creation of Tatar-language and linguistic validation of Russian-language diagnostic materials.
Keywords: pelvic pain, non-specific pelvic pain pain diagnosis,clinical linguistics,neurology, gynecology.

Introduction

In medical literature chronic pain is defined as a type of pain which lasts more than 6 months. Chronic pelvic pain in women is defined as a constant non-cyclic pain in the pelvic region [Speer 2016], or as a pain in the lower abdomen and in the pelvic region. In women, pelvic pain may be a symptom of diseases in the reproductive, urinary and digestive systems, as well as musculoskeletal diseases. The prevalence of NsPP in all types of chronic pelvic pain is 6-27% [Ahangari 2014]. In most patients, as a rule, it is impossible to single out the only etiological factor of NsPP. In most cases, at least one associated condition is identified, such as irritable bowel syndrome, interstitial cystitis (female urethral syndrome), endometriosis, or adhesions in the pelvic cavity. There are researches on the connection between hyper-pronated foot and the degree of severity of disability in patients with non-specific chronic back pain [Balasundaram 2017]. In some cases chronic pain appears in women after sterilization procedures [Carney 2018, Khazal, A. W., Sari, A. M., & Jun, W. X. 2016].

The absence of actual urological, gynecological and other organic pathology in NsPP brings this syndrome closer to the concept of *non-specific back pain* [Luomajoki 2018, Koes 2018 etc.], which is introduced into medical practice to refer to a similar situation in patients with acute or chronic back pain.

It is assumed that in the absence of apparent etiology NsPP can be treated as a complex of neuromuscular and psychosocial disorders, similar to chronic regional pain syndrome (such as reflex sympathetic dystrophy) or functional syndrome of somatic pain (for example, irritable bowel syndrome, chronic fatigue syndrome) [Engeler 2016, Trámpuz, Juan Pablo, and Daniel Barredo Ibáñez.2018]. But it is not usually mentioned that the verbal report of a patient is very important, too. Patients often substitute the description of pain itself with the description of their diagnoses, psychoemotional sensations, the history of the disease, and the characteristics of pain are rather problematic in women – from the inability to clearly describe the localization to the inability to determine a number of important diagnostic features. All these problems of verbal description complicate the differential diagnosis [Esin 2017, Selomo and Govender, 2016] even in case of using specific psychometric tests.

Materials And Methods

The materials for research were processed in the laboratory "Clinical Linguistics" (Kazan Federal University) in the frame of the project connected with pain research. The theoretical basis of the study is presented by materials collected as a result of own research and by the method of continuous sampling from scientific databases: PubMed (https://www.ncbi.nlm.nih.gov/pubmed, March 2018), Scopus (https://www.scopus.com, March 2018), Web of Science (https://www.webofknowledge.com, March 2018), Elibrary (https://elibrary.ru, March 2018), Academia.edu (https://www.academia.edu/, March 2018). The recommendations of clinicians were also taken into account.

The results of the study can be used in clinical practice (in diagnosis and treatment of diseases connected with different aspects of pain study).

The authors examined 50 women with NsPP at the age of 20-40 years (average age 30,05 ± 1,6) with pain syndrome duration from 6 months to 3 years. Myogenic trigger zones (MTZ) were revealed in all women: in pelvic floor muscles – 11 (22%), in the gluteal muscles – 23 (46%), in femoral adductor muscles – 9 (18%), in oblique abdominal muscles – 7 (14%). During the palpation of MTZ, the patients noted the appearance of reffered pain. The area of reffered pain corresponded to the localization of pain, which caused complaints of patients and was the reason for contacting a doctor. The intensity of pain according to VAS before treatment was 52.9 ± 6.2 mm.

Results

The syndrome of NsPP is mainly practiced by urologists [Cashman 2018], therefore recommendations for the diagnosis and treatment of chronic pelvic pain have been developed by the European Association of Urology [Engeler 2016]. They include a description of the modern understanding of pathophysiology and psychosocial aspects, as well as classification, diagnosis and treatment. It is assumed that in the absence of an explicit etiology, NsPP can be treated as a set of neuromuscular and psychosocial disorders similar to chronic regional pain syndrome (such as reflex sympathetic dystrophy) or functional somatic pain syndrome (eg, irritable bowel syndrome, chronic fatigue syndrome) [Engeler 2016]. In the structure of the syndrome may be present hyperesthesia, allodynia and dysfunction of the muscles of the pelvic floor.

The objective examination is to identify all possible neural, articular, muscular, organ pain sources, as well as factors predisposing to the development of somatic diseases (anxiety and depressive disorders). Gynecological examination, including examination with the help of mirrors, should be carried out gently in order to avoid exacerbation of pain. External genitalia should be examined for signs of infection, inflammatory skin diseases, malignant vulva and neurogenic diseases. Analyzes are of less importance in the evaluation of women with NsPP. A complete blood count with leukoformula, erythrocyte sedimentation rate, urinalysis, chlamydial infection and gonorrhea can be performed to identify a chronic infectious or inflammatory process and exclude pregnancy. Transvaginal ultrasound is informative for determining pelvic tumors and adenomyosis, especially for detecting tumors with a diameter of less than 4 cm, which are often not diagnosed in a bimanual study. Sonography is also informative for the detection of hydrosalpinx. Subsequent magnetic resonance imaging can be used to clarify the nature of the anomalies found in sonography.

In severe pain, laparoscopy can be performed if the diagnosis remains unclear after the above studies. Laparoscopy is informative for the confirmation and, possibly, treatment of endometriosis or adhesions in the pelvic cavity and abdominal cavity, but in almost 40% of cases it does not show anomalies. Perhaps the most difficult aspect of diagnosis is the definition of a muscle-ligament structure which is the reason of the pain. The physician should have a clear understanding of the anatomical features of the pelvis, the localization of trigger zones and patterns of reflected pain, and the ability to palpate muscles and ligaments (including through rectal and / or vaginal access). It should be emphasized that the presence of reflected pain from the myogenic trigger zone is regarded as a sign of central sensitization. This is a prerequisite for the low effectiveness of analgesics of predominantly peripheral action (non-steroidal anti-inflammatory drugs) and high effectiveness of central-action drugs, as will be discussed below. When collecting anamnesis, it is necessary to clarify factors that increase or decrease pain; the connection of pain with menstruation, sexual activity, urination and defecation, the response to any previous procedures. A specialist should ask the patient to show the area of pain during visual examination of the body. This will help to clarify whether the pain is localized in the pelvic region, to reveal dermatomic localization, which indicates a different cause of pain. The physician should be familiar with the manifestations of visceral and somatic pain, as well as the innervation of the pelvic region. Psychosocial anamnesis is important. Almost half of the women suffering from NsPP have sexual, physical or emotional trauma, and about one third have signs of post-traumatic stress disorder [Meltzer-Brody. 2007]. To clarify the nature of the pain and its effect on the patient's life, a pain diary that records pain days, its visual analogue scale and localization, associated factors (eg. menstruation, mood, bowel / bladder function, coitus, physical activity) and the use of analgesics.

Discussion

Patients should be offered psychometric materials for diagnosing pain syndromes, first of all, word and phrasal descriptors that have been selected for this category of patients, which serve for a more detailed and accurate description of pain. The problem of an adequate description of pain is very relevant for patients with NsPP. They can hardly produce a number of important characteristics for diagnostics (*dull, sharp, burning, chilling, tingling, aching, similar to electrical discharges*, etc.). The situation with NsPP diagnosis in the Republic of Tatarstan is specific because of bilingual situation [Alyoknina 2016, Lukankina 2017, Akhmerova 2017].

The goal of NsPP treatment is to maximize the quality of life of patients with an emphasis on the maximum participation of the patient in the treatment process. The treatment of chronic pelvic pain has limited evidence and is often aimed at reducing the severity of symptoms [Cheong 2014]. Any diagnosed disease should be treated, although even targeted treatment does not always lead to a reduction in pain. Non-steroidal anti-inflammatory drugs have low effectiveness in chronic pain, but their use ex juvantibus with a short course will allow to assess the relevance of the peripheral factor (tissue inflammation). In the presence of cyclic pain, it is advisable to consult a gynecologist to resolve the issue of hormonal therapy.

Conclusions

NsPP is common in women, especially at the age of 27-30 years. The prevalence is comparable to the prevalence of lower limb veins diseases in women. The current state of the problem allows us to single out a separate form of NsPP, which is not associated with the presence of an actual gynecological, urological or other visceral pathology and by analogy with non-specific back pain may be called "nonspecific chronic pelvic pain". Since in the Russian Federation the treatment of nonspecific pain is mainly conducted by neurologists and manual therapists, it is advisable to introduce into medical practice the definition, the principles for diagnosis and treatment of this very common pathology.

A special feature of NsPP in women is the presence of MTZ in pelvic muscles, anterior abdominal wall and femur with signs of central sensitization. Other mechanisms of pain may include articular dysfunction, anxiety and depressive disorders, which require specific treatment.

Conflict Of Interest

The authors confirm that the data presented do not contain conflict of interest.

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