

Chronic Pelvic Pain and Endometriosis and Their Impact on Women's Psychological Disorders

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Abstract

Introduction: It is undeniable that chronic pelvic pain, and especially endometriosis, is a growing public health problem.

Discussion: Endometriosis is a significant public health problem faced by a very large number of women. There are numerous predisposing factors, and the disease itself has multiple organic and psychogenic aspects that directly affect the quality of life of women.

Conclusion: Given the limited effectiveness of surgical and drug interventions in the treatment of chronic pelvic pain and endometriosis, quality diagnostics are necessary. For this reason, the need to introduce targeted biomarkers as well as other minimally invasive diagnostic and therapeutic procedures arises. In this regard, it is of utmost importance to accept the psychological aspects of the disease itself, with an emphasis on their prevention, treatment and monitoring.

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Introduction

Chronic pelvic pain is a very common cause of numerous problems and symptoms in women. The disorders occur most often in patients, but they can also occur in connection with or without the menstrual cycle. The etiology of chronic pelvic pain is multidisciplinary and multifaceted. It has direct public health effects given its high prevalence in the population. Many of the entities responsible for chronic pelvic pain have numerous irreversible as well as reversible effects (1).

It is undeniable that patients suffering from pelvic inflammatory disease also have a significantly higher incidence of psychological disorders compared to women who do not have the aforementioned disorders. In addition, to fully understand the entity itself, we must also examine in detail numerous environmental, genetic, inflammatory and neurobiological factors. The aforementioned factors also have repercussions for the development of psychological disorders. We must also consider all non-pharmacological and pharmacological options in the treatment of chronic pelvic pain, in order to best treat psychological disorders in the treatment of the same (1-3).

According to literature, chronic pelvic pain has a very high incidence in the female population, reaching 20% of the population in some countries. The entity itself is defined as non-cyclical pain in the pelvis or abdomen that persists for at least 6 months. The disease is severe enough to cause functional disability or lead to a real need for medical care. This is not a single entity, but a number of symptoms and overlapping conditions. Numerous conditions are included. These include endometriosis, myofascial pelvic pain, vulvodynia, interstitial cystitis or bladder pain syndrome, irritable bowel syndrome and numerous other conditions. Many patients with chronic pelvic pain have psychological disorders that can be mild or very severe. Therefore, it is extremely important to know them well in order to be able to diagnose and treat the disease or disorders in a timely manner (1-3).

Recent insights into chronic pelvic pain

Delenbach et al state that chronic pelvic pain is one of the most difficult and complex problems encountered in gynecology. Tension myalgia of the pelvic floor is mentioned as one of the hypotheses in the etiology of the disease. For this reason, the authors identified trigger points, the myofascial problems themselves and the Carnett test. The authors do not count the above as a cause, but as a symptom of psychological disorders. They are directly related to the organic substrate in the pelvis, which goes along with neurotic and psychosomatic problems (2,3).

The assessment of chronic pelvic pain in patients is extremely complex. It requires obtaining detailed gynecological and anamnestic data. In doing so, numerous gastrointestinal, urological, musculoskeletal and neurological disorders must be accepted. In patients, a very detailed physical examination and gynecological examination as well as a detailed transvaginal ultrasonography are necessary. The treatment of chronic pelvic pain is directly correlated with the cause of the disease itself. The treatment itself can be directed at specific causes or it can be directed at general pain management. In clinical practice, it is most effective when both approaches are included, but the psychological component of the disease and its treatment must also be accepted (1-4).

In a literature review by Torstensson et al. (5), we find the incidence of chronic pelvic pain in women is between 15 and 24%. The authors emphasize the importance of laparoscopy in the diagnosis and treatment of a large number of patients (5).

Likewise, Nawrocka-Rutkowska et al. (6) state in their research that the incidence of chronic pelvic pain is up to 15% in women during the reproductive period. The disease itself is caused by adhesions in 20 to 40% of patients. Chronic pelvic pain is the main symptom of endometriosis and, according to literature, is confirmed by laparoscopy in 12 to 18% of patients of reproductive age. The authors state in their study that the best results for sensitivity,

specificity, positive predictive value and negative predictive value in the diagnosis of endometriosis were found in women with irregular menstruation during which the pain increases. In this regard, laparoscopy is still recommended as the primary diagnostic and therapeutic method (6).

Khan et al. in their study report (7) the complexity of the differential diagnosis of chronic pelvic pain. In their study, they analyze the importance of laparoscopy and the preoperative role of magnetic resonance imaging (MRI). The authors concluded that preoperative magnetic resonance imaging in patients with chronic pelvic pain has great value in the diagnosis and further treatment of patients. The aforementioned approach facilitates diagnosis and improves diagnostic and therapeutic procedures in women with chronic pelvic pain (7).

In the study conducted by Jones and colleagues (8), parameters related to the quality of life of treated patients with endometriosis were investigated. The authors concluded that women with endometriosis faced long-term, almost lifelong medical interventions. Many of the aforementioned interventions were also surgical. The interventions were aimed at keeping the patients' chronic pelvic pain under control, or endometriosis as the underlying disease. The emphasis of modern research is primarily on minimally invasive interventions. The goal of the aforementioned interventions is longer-term positive effects with an emphasis on improving the quality of life and bringing improvement in the psychological status of women (8).

The work of Baford et al. (9) states that endometriosis is one of the most common causes of chronic pelvic pain as well as infertility. There are numerous references in the literature that discuss surgical interventions aimed at removing endometriotic lesions and establishing normal anatomical relationships. The authors did not find reliable indicators in their research on the reduction of overall postoperative pain after laparoscopic interventions in women with minimal to severe

endometriosis, as well as improving pregnancy rates and side effects. Therefore, the authors suggest further research in order to objectify the research and results (9).

Perspectives in treatment of the chronic pelvic pain

Bernard et al. (10) state that endometriosis is characterized by the presence of endometrial tissue outside the uterine lining. Endometriosis most often occurs on the outer surface of the uterus, ovaries, fallopian tubes, abdominal wall or intestines. Despite the progress of surgical and medical methods in the treatment of endometriosis, their effectiveness is still limited. Some of the treatments and drugs can directly affect fertility. The authors point to the potential usefulness of reducing fat and meat intake and increasing fiber intake in the diet. The result is a lower amount of estrogen in the circulation and thus a lower severity of endometriosis-related disorders. The usefulness of a plant-based diet is also emphasized due to its anti-inflammatory effects. The authors state that the introduction of seaweed into the diet leads to a lower amount of estrogen in premenopause and a decrease in estradiol concentration in postmenopause. The authors associate the use of vitamins D, C and E with a decrease in pain intensity due to their antioxidant status. The authors concluded that further research is needed to detail the association between diet and endometriosis, one of the most common causes of chronic pelvic pain (10).

Martire et al. (11) also point to the importance of dietary patterns that can affect oxidative stress, estrogen metabolism, and SHBG levels. The authors recommend a diet rich in antioxidants, polyunsaturated fatty acids, and vitamins D, C, and E - while avoiding processed foods, red meat, and animal fats. The authors conclude that dietary approaches can serve not only to alleviate pain and improve fertility outcomes, but also to better control the disease, especially in women who are planning a pregnancy or cannot use hormone therapy. Changing dietary habits also helps in the postoperative period and

generally has numerous positive effects on women's health (11).

In their research, Taylor et al. (12) state the complexity of diagnosing chronic pelvic pain, especially in cases of comparison with the age of the patients. This has an adverse effect on the effectiveness of therapy and treatment in patients with endometriosis. The fastest possible establishment of an accurate diagnosis is crucial in the treatment of endometriosis. The authors state that the clinical picture of endometriosis is diverse and that we still do not understand all aspects of the disease, both organic and psychogenic. Today, it is undeniable that endometriosis is considered a systemic disease that affects metabolism in the liver and adipose tissue, leads to systemic inflammation and changes gene expression in the brain. This also affects pain sensitivity and interacts with mood disorders. The current situation is such that progestins and low-dose oral contraceptives are unsuccessful in a third of symptomatic women, which is explained by progesterone resistance. When first-line drugs do not work, the authors state that GnRH represents an effective and tolerable therapeutic alternative. It is undeniable that our view of endometriosis must be much broader than it is today, considering its systemic role (12).

Zippl et al. (13) conducted research on the association between endometriosis and anxiety, depression, sexual dysfunction, and eating disorders. The authors emphasize that chronic pelvic pain is in direct correlation with the aforementioned entities. The authors speak in support of research that links genetic predispositions for endometriosis and mental health disorders and suggests their shared genetic predisposition. For this reason, the need to establish a diagnosis as quickly as possible and the beginning of a targeted medical intervention with mandatory psychological support is emphasized. The mentioned approach directly influences the improvement of the patient's quality of life (13).

Tennfjord et al. (14) analyzed the role of physical activity and exercise on endometriosis symptoms. Although preliminary results were

encouraging, definitive conclusions could not be drawn. The authors concluded that future research should be based on randomized controlled trials of high methodological quality. The aforementioned studies should analyze relevant key outcomes such as pain, symptom improvement and quality of life while taking into account acceptability and satisfaction of women. The need for the use of reliable and validated tools is emphasized (14).

Research conducted by Blanco et al. (15) talked about the clinical application of non-invasive biomarkers for endometriosis. For a definitive confirmation of endometriosis, we still need to visualize the lesions, most often with a laparoscopic approach. The authors state that there are still few safe and effective treatment strategies for endometriosis. For hormone therapy as well as surgical treatment, it is stated that they provide only temporary control of symptoms. In endometriosis, chronic inflammation is a characteristic feature associated with the development and progression of the disease. It is stated that endometriosis often occurs together with autoimmune diseases, and immune dysfunction also promotes the same. The authors stress the importance of the development of non-invasive biomarkers, which, according to them, would play a major role in the timely treatment of endometriosis (15).

Garvey et al. (16) state that inflammatory mediators have been found to be associated with endometriosis as a chronic disease, indicating a link between dysbiosis and disease manifestation. The authors point out that endometriosis is associated with several painful comorbidities, including endometrial cancer, cardiovascular diseases and autoimmunity. In doing so, the importance of routine clinical applications of biomarkers, microfluidic platforms and organoid systems as soon as possible is emphasized. The urgent need for clinical application of reliable, reproducible, sensitive and specific models of endometriosis will be highlighted in order to be able to investigate and explain its etiology in detail (16).

Conclusion

Chronic pelvic pain, and especially endometriosis, is a significant public health problem that a very large number of women face. There are numerous predisposing factors, and the disease itself has numerous organic and psychogenic aspects that need to be accepted. In the treatment of chronic pelvic pain and

endometriosis, quality diagnostics are essential, and the need to introduce biomarkers and other minimally invasive diagnostic and therapeutic procedures is becoming more apparent. It is certain that considering the increase in the incidence of endometriosis and other factors associated with chronic pelvic pain, there will be great challenges in the diagnosis, treatment and prognosis of patients in the future.

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Competing interests. None to declare.

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Kronična zdjelična bol i endometrioza te njihov utjecaj na psihološke poremećaje kod žena

Sažetak

Uvod: Nesporno je da je kronična zdjelična bol, a pogotovo endometrioza, sve veći javno zdravstveni problem.

Rasprava: Endometrioza predstavlja značajan javnozdravstveni problem s kojim se suočava vrlo veliki broj žena. Pri tome postoje brojni predisponirajući čimbenici, a sama bolest ima mnogostruke organske i psihogene aspekte koji direktno utječu na kvalitetu života žena.

Zaključak: Obzirom na ograničenu učinkovitost kirurških i medikamentoznih intervencija u tretmanu kronične zdjelične boli i endometrioze neophodna je kvalitetna dijagnostika. Radi spomenutog se nameće potreba uvođenja ciljanih biomarkera kao i drugih minimalno invazivnih dijagnostičkih i terapijskih procedura. Pri tome je od iznimnog značaja akceptirati i psihološke aspekte same bolesti, uz naglasak na njihovu prevenciju, liječenje i praćenje

Ključne riječi: kronična zdjelična bol, endometrioza, psihološki aspekti bolesti