NOVATEUR PUBLICATIONS
JournalNX- A Multidisciplinary Peer Reviewed Journal
ISSN No: 2581 - 4230
VOLUME 8, ISSUE 11, Nov. -2022

CHRONIC PELVIC PAIN SYNDROME WITH CHRONIC SALPINGOOPHORITIS – A MODERN VIEW ON PATHOGENESIS

Ziyaeva Etiborkhon Rasulzhonovna
Assistant of the Department of Obstetrics and Gynecology №1, Andijan State Medical Institute

Ruzieva Nodira Khakimovna
Doktor of Medical Sciences, Associate Professor of the Department of Obstetrics and Gynecology,Toshkent Medical Pediatrik Institute

ABSTRACT
The article presents a retrospective analysis oitis, in 243 of them this condition was complicated by chronic pelvic pain syndrome (ChPPS).

Keywords: chronic pelvic pain syndrome, microcirculation, microbiocenosis.

INTRODUCTION

Chronic salpingoophoritis(ChSO) is one of the common diseases of female gynecological sphere. This disease affects more than 30% of women of reproductive age[1,2,3,4,5]. This disease is considered a suffering for women of all nations and nationalities because of various complications from development of infertility to painful pelvic pain. Pain is impulses from receptors to the brain. Nature created this me chanism for a reason, so we can understand that there is a problem in the body. Diagnosis "chronic pelvic pain syndrome"(ChPPS) is established if there is pain in the area of pelvic organs, perineum, sacrum, suprapubic area, in the abdomen below the navel. In this case, the pain is not associated with menstruation, and this condition lasts more than 6 months [7,8,10,13,14,18]. Prolonged irrational treatment of ChSO and its complications contributes to the development of changes in the composition of the normal microflora of the vagina, cervix and urethra, i.e. microbiocenosis disruption, which supports the development of chronic inflammation [6].

The cause of the pain may be organic or infectious diseases, and ChPPS is referred to as chronic pelvic pain.

In some cases, no pathology is found or the severity of the pain does not match the severity of the proven changes. In these cases, a diagnosis of ChPPS is made.

Impaired blood microcirculation and hyperexcitability of the nervous system play a role in the development of ChPPS. In conditions of oxygen and nutrient deficiency, nerve endings transmit impulses that are perceived by the brain as painful.

Chronic pelvic pain is a fairly common pathology, as 4-25% of women of reproductive age are diagnosed with chronic pelvic pain. In the USA, 5-15% of women report the presence of pain syndrome, in the UK the corresponding diagnosis is made in 38 women out of 1000. According to the WHO, this syndrome is the most frequent and at the same time the most difficult to diagnose in gynecological patients, and accounts for about 10% of all pathologies in women who consult a gynecologist. More than 60% of women visit an obstetrician-gynecologist every year exactly because of pelvic pains. Chronic pelvic pain is a much more frequent symptom of gynecological (73.1%), post-operative adhesions, which occur in 65-73% of the operated women, extragenital diseases (21.9%) than any

other kinds of mental disorders (1.1%). It is equally rare to have an independent nosological or syndromic significance (1.5%)[5,7,8, 14,15,16]

The causes of chronic pelvic pain come from many diseases, which are distinguished by:

1. Organic causes provoking the disease:

2 .Inflammatory diseases of the organs of the reproductive system, for example: salpingitis, oophritis, endometritis, cervicitis;

3. Benign and malignant tumors, cysts;

4. Endometriosis ‒ appearance of endometrial tissue (the inner lining of the uterus) in atypical places, i.e. on other organs;

5. Adhesions in the pelvic cavity;

6 . Pelvic varicose veins;

7. Urological diseases: urolithiasis, cystitis, pyelonephritis;

8. Intestinal pathology;

9. lumbosacral osteochondrosis.

10. Disease without an organic cause is detected in less than 2% of cases. It is characteristic of people with an unstable emotional state, hypochondria, tendency to nervous breakdowns, neurasthenia, depression [7,8,9,13,14,16,22]

Depending on the clinical manifestations the syndrome of chronic pelvic pain can be divided as follows:

- Pelvic pain proper - painful sensations in the lower abdomen, inguinal areas, lower back, bothering the patient almost constantly and inten sifying on certain days of the menstrual cycle, when overcooling, pro longed static load, etc;
- Dysmenorrhea - painful menstruation;
- Deep dyspareunia - painful intercourse with deep penetra tion[11,17,19,23]

In the dynamic observation of patients with ChPPS, we distinguish three stages in the development of this disease

1. Organ stage. The pain is local, limited to one area, and does not spread to nearby organs. According to subjective evaluation of a patient, it corresponds to the severity of the disease. Psycho-emotional disorders are absent.

2. Overorganic stage. Pain spreads to other regions along the nerves.

3. Polysystemic stage. Besides high intensity of pain syndrome, pelvic organs dysfunction is also present. Menstrual cycle disorders, metabolic disorders due to hormonal dysfunction are the consequence. At this stage, serious psycho-emotional disorders develop[5,7,8,14,16,18,21].

The main manifestations of ChPPS are the following:

-Bearing, burning or stabbing pain in the pelvis, sacrum, pubic region, lower abdomen, perineum;

-Pain and discomfort are not related to the menstrual cycle;

-Pain during sexual intercourse and/or after it;

-Disorders of urination: painful, delayed, increased frequency;

-Insomnia, frequent nightmares;

-depressive state, unexplained anxiety[3,4,7,8,12,13,14, 17].

Therefore, the treatment plan for ChPPS includes:

1.Rational therapy of the underlying disease

2.Physical therapy - improves blood circulation;

3.Reduction of excitability of the nervous system - affect the peripheral and central parts of the nervous system, responsible for the perception of pain. Up to 27% of all laparoscopies and up to 15% of

hysterectomies (International Pelvic Pain Society) worldwide are performed due to chronic pelvic pain syndrome.

For example, according to the National Institutes of Health, 12% of hysterectomies in the United States are performed due to pelvic pain syndrome; in 25% of cases the surgical intervention does not result in elimination of the pain syndrome. Up to 40% of laparoscopic pelvic surgeries are performed for ChPPS, with only 30% of cases identifying endometriosis, adhesions, inflammatory changes or other visceral causes of pain[14,18,21].

The studies conducted **the purhpoz** to study the retrospective aspects of the causes and mechanisms of ChPPS and the scientific substantiation of views on the pathogenesis of this syndrome in patients with chronic salpingoophoritis and the role of disorders of the female genital biocenosis in the development of ChPPS. These data are of great practical importance for the choice of methods of therapy for ChPPS in outpatient and inpatient gynecology.

Objective

To study retrospective aspects of the causes and mechanisms of ChPPS and scientifically substantiate the views on the pathogenesis of this syndrome in patients with chronic salpingo-oophoritis.

Materials of the Study:

THE archived data of 400 women with chronic salpingoophoritis, 243 of them with ChPPS being a complication of

1) With chronic salpingoophoritis being up to 10 years old, female biocenosis disorders (main group n=100)

2) With chronic salpingoophoritis less than 10 years old, without violation of biocoenosis (control group 1 n=93)

3) With chronic salpingoophoritis more than 15 years old (control group 2 n=50)

Research methods performed:

1. General clinical methods of investigation.
2. Laboratory methods of investigation (hormonal screening, vaginal, cervical canal and urethral flora smears).
3. Instrumental methods of investigation - ultrasound and Doppler ultra sound of the pelvic vessels.

The retrospective aspects of the causes and mechanisms of ChPPS development will be studied and an attempt will be made to scientifically substantiate the views on the pathogenesis of this syndrome in patients with chronic salpingoophoritis.

Retrospective study of archival materials of patients of fertile age with CSF allows us to make certain assumptions concerning the pathogenesis of ChPPS development in this disease. Prolonged, frequently relapsed cour se of ChPPS contributes to the disturbance of blood microcirculation in the inflammation focus and increased excitability of the nervous system, development of adhesions in the pelvic area. In addition, prolon ged treatment of ChPPS contributes to the development of changes in the composition of the normal microflora of the vagina, cervix and urethra, and our studies were the first to link the development ChPPS with disorders of gynecological organ microbiocenosis [6].

The studies conducted to study the retrospective aspects of the causes and mechanisms of ChPPS and the scientific substantiation of views on the pathogenesis of this syndrome in patients with chronic salpingoophoritis and the role of disorders of the female genital biocenosis in the development of

ChPPS are of great practical importance for the choice of therapy methods of ChPPS in outpatient and inpatient gynecology.

Results and Discussion

The main manifestations of ChPPS of almost any genesis patients complain of aching, burning or stabbing pain in the pelvis, sacrum, pubic region, lower abdomen, perineum;
pain and discomfort were not related to the menstrual cycle;
pain during sexual intercourse and/or after it;
urinary disorders: painfulness, delay, increased frequency;
insomnia, frequent nightmares;
depressive state ("patient's withdrawal into pain"), unreasonable anxiety,
which, in turn, aggravate pathological pain reaction. Thus, a peculiar "vicious circle" was formed: pain - social disadaptation – psychoemo tional disorders - pain in the examined patients [8,9,10].

Pelvic pain in the right and left iliac regions was often the main and some times the only symptom of chronic inflammation of the uterine ap pendages in the patients studied, and was differentiated with the pain of postoperative adhesions, external genital endometriosis, traumatic dama ge to the uterine broad ligaments (Allen-Masters syndrome), benign and malignant tumors of the internal genitalia.

To clarify or verify the genesis of chronic pelvic pain, we performed:

- Laboratory examination for herpetic infection, more than others associa ted with the development of pelvic ganglionephritis;
- ultrasound examination of the pelvic organs (screening to rule out organic diseases of the internal genital organs and the urinary system);
- X-ray examination of the lumbosacral spine and pelvic bones;
- Radiological (irrigoscopy) or endoscopic (rectoscopy, colonoscopy, cystoscopy) examination of the gastrointestinal tract and bladder to rule out the association of chronic pelvic pain with diseases of these organs.

On vaginal examination, all women palpated thickened, moderately pain ful uterine appendages. In the main group of patients with impaired bioce nosis, the pain was mainly localized in the right uterine appendage in 64 patients, in 24 patients in the left uterine appendage and in 12 patients the pain was bilaterally localized. In the second group of patients without a violation of the biocenosis, 59 patients had pain mainly in the right appendage, 19 patients in the left appendage, and five patients had bilateral pain. Tension of the vaginal arches was detected in 14 patients in the main group, where significant local inflammatory changes of produc tive character were noted.

Bacteriological examination of vaginal, cervical canal and urethral dis charge revealed the predominance of associated pathogens, among which Escherichia coli and Gardnerella vaginalis were detected more frequently (46% each), as well as profound disorders of the normal vagi nal, cervical canal and urethral microflora, i.e. significant disorders of female biocenosis.

Ultrasonography and Doppler sonography of pelvic vessels were used as another objective method for diagnosing inflammation of the uterine appendages. In our studies, the leading ultrasound marker of acute salpingo-oophoritis was the detection of an enlarged polycystic ovary inside, with the presence of oval low-wave resistance structures of va rious diameters separated by thin hyperechogenic septa. Indirect echo graphic signs of inflammation of the uterine appendages as the pre sence of "free" fluid in the pelvis located in the Douglas space and in the recesses of the small pelvis. The phase of the menstrual cycle should be considered to assess this feature.

The Doppler study of pelvic vessels revealed - disturbances of micro circulation in the area of appendages were observed in 94 (94%) women. Two main types of microcirculation were revealed: hyperemic in 46 (46%) patients, mixed ("spasm-stasis") in 32 (32%); changes of angiopastic and congestive nature were seen in 8 (8%) and 8 (8%) women, respectively; the breath test was positive in 64 (64%) patients. A decrease in blood pressure and vascular tone was evidenced by a decrease in rheographic index to 0.64±0.03 ohms, a small amplitude of pulse waves, and an increase in their travel time. In the control group the corresponding changes were also noted: disturbances of microcirculation in the area of appendages were observed in 74 (80%) women. Two main types of microcirculation were revealed: hyperemic in 34 (37%) patients, mixed ("spasm-stasis") in 24 (26%); changes of angiopastic and congestive nature were seen in 6 (6%) and 10 (11%) women, respectively; the breath test was positive in 44 (47%) patients. Decrease of rheographic index to 0,75±0,03 ohm, small amplitude of pulse waves and increase of their propagation time testified to decrease of blood pressure and vascular tone.

Treatment of ChPPS on the basis of ChSO was carried out according to the conventional method in the form of antibacterial, anti-inflammatory, desensitizing, antispasmodic, symptomatic, resolving therapy and Per rectum application of a new anti-inflammatory ointment 5 ml once a day.

Treatment efficacy was assessed on the 7th, 14th day and then after 28 days from the start of treatment, and the long-term results were determined after 6 months.

The efficacy of the therapy was evaluated taking into account;

-curing the clinical symptoms of the disease (pain, fever, white spots, dysuric disorders);

- absence of the etiological pathogen;

- absence of recurrence of the disease at dynamic observation.

When analyzing the results of the study, the following were taken into account::

- positive clinical effect;

- positive microbiological effect;

- combined positive clinical and microbiological effects.

The analysis of the study results showed that by the 14th day of therapy in the group of patients who additionally received the new ointment, a significant improvement in the local status, expressed as a significant reduction in pain, the absence of the etiological pathogen; at further dynamic observation, a decrease in the recurrence of the disease was noted.

Conclusions and Implications:

A retrospective study of the causes and mechanisms of ChPPS development shows that the pathogenesis of this syndrome in patients with chronic salpingoophoritis is as follows:

1. Violations of local microcirculation - Interpretation of the results of the study of microcirculation disorders revealed two main types: by hyperemic and by mixed type ("spasm-stasis"), also changes of angiopastic and stagnant nature were found.

2. Results of chronic productive inflammation - development of adhesions between organs and tissues, up to the development of polycystic, polyposis formations, preventing the normal movement of organs and tissues in the pelvic cavity.

3. Development of microbiocenosis disorders in the gynecological area during treatment of chronic processes, which also interfere with the normal course of reparative processes in the affected area.

Conclusions:

1. The study of retrospective data in the pathogenesis of chronic pelvic pain in gynecological patients the violation of blood microcirculation and development of elements of chronic productive inflammation of the pelvic organs take the main place.
2. Irrational treatment and frequent relapses of ChPPS are the basis of genital organs biocenosis disorders development that supports the causes of inflammatory processes.
3. It was also found that the use of a new anti-inflammatory ointment has a beneficial effect on the speed of recovery and helps to reduce the severity of ChPPS.

LITERATURE

1. Abdullaeva MA, Ziyaeva E.R., Sobirova M.R. Changes of cellular immunity in patients with chronic salpingoophoritis under the action of grontotherapy.//Medical science: New opportunities. Collection: Materials of 13th scientific-practical conference of young scientists of TSMU with international participation.- Dushanbe.- 2018. - Vol.1.- P.126-127.
2. Abdullaev R.N., Abdullaeva M.A., Sobirova M.R. Intraoperative method of treatment and prevention of pelvic adhesions in patients with tubal-peritoneal infertility.//Moscow.Problems of Science. - 2018, - №11(35),- C.56-60.
3. Ayriyants I.R., Yagubov M.I. Chronic pelvic pain in sexological practice .//Social and Clinical Psychiatry. - 2020,-vol. 30 № 3.-P. 93-98.
4. Akhtamova N.A., Zakirova N.I. Improvement of treatment tactics of chronic pelvic pain caused by salpingoopharitis.// Problems of Biology and Medicine,- 2021,- №1.1 (126),- 83-85.
5. Ziyaeva E.R. The results of complex treatment of chronic salpingoophoritis in women of fertile age of Andijan region// Tibbiyotda yangi kun,-3 (31),- 2020,- P. 302-308.
6. Konoplya AA, Petrov SV, VP Gavrilyuk VP Correction of violations of the immune, cytokine and antioxidant status in patients with chronic salpingoophoritis.// Medical Immunology. 2006. T.8, № 1. C. 97-100.
7. Moskovenko N.V. Complex approach to the diagnosis and treatment of pelvic pain in women: clinical and economic aspects. T. 93, №1. C. 61-67.
8. Benjamin S. Psychological treatment of chronic pain: a selective review // J. Psychosom. Res, 1989, Vol.33, № 2, P.121-131.
9. Bonnema R., McNamara M., Harsh J., Hopkins E. Primary care management of chronic pelvic pain in women // Cleveland Clinic J. Med. 2018. Vol. 85, № 3, P. 215-223.
10. Ciccone D.C., Grzesiak R.C. Cognitive dimensions of chronic pain // Soc. Sci. Med. 1984. Vol. 19, № 12, P. 1339-1345.
11. Ziyaeva E.R. Microbiocenosis Of Open Cavities Of the Body //The American Journal of Medical Sciences and Pharmaceutical Research, 3(7), 1-45.
12. Dix C. Acute and chronic pelvic pain. //OB/GYN Secrets / H.L. Frederickson, L. Wilkins-Haug (Eds.), Philadelphia: Hanley & Belfus, 1997. P. 67-71.
13. Mc.Donald J.S. Pelvic and abdominal pain / M.A.Ashburn, L.J.Rice (Eds.). The management of pain NY, Churchill Livingston, 1998 Vol. 24. P. 383-400.
14. Melicien A., Tettambel D. Using Integrative Therapies to Treat Women With Chronic Pelvic Pain // J. Am. Osteopathic Assoc. 2007, Vol. 107, № 17, P. 17-20.
15. Meltzer-Brody S., Leserman J. Psychiatric Comorbidity in Women with Chronic Pelvic Pain. [Electronic resource] // CNS Spectr. 2011. pii: Meltzer-Brody. [Epub ahead of print. www.pubmed.com].

16. Perry C.P. Clinical Anatomy of Pelvic Pain in Women: A Gynecological Perspective: Anatomy of Pelvic Pain in Women // Clin. Anatomy. 2018. Vol. 32. № 1, P. 41-52.
17. Perry C.P. Current Concepts of Pelvic Congestion and Chronic Pelvic Pain Article // J. Soc. Laparoendoscopic Surgeons. 2017. Vol. 5. № 2, P. 105-110.
18. Perry C.P. Peripheral neuropathies causing chronic pelvic pain // J. Minimal. Invas Gynecol 2000 Vol.7, N 2. P. 281-287
19. Singh M.K., Rivlin M.E. Chronic Pelvic Pain in Women. [Electronic resource] //Drugs Diseases Obstetrics Gynecology. 2018 https://reference.medscape.com.
20. Speer L.M., Mushkbar S., Erbele T. Chronic Pelvic Pain in Women // Ohio Am. Fam. Physician. 2016. Vol. 93. N 5. P. 3380-3387.
21. Taylor H.C. Застой и гиперемия сосудов, их влияние на структуру и функцию женских репродуктивных органов // Am. J. Obstet. Gynecol. 1949. Vol. 57. P. 637-653.
22. Trutnovsky G., Plieseis C., Bjelic-Radisic V., Bertholiny Galvez M., Tamussino K., Ulrich D. Vulvodynia and chronic pelvic pain in a gynecologic outpatient clinic // J. Psychosom.c Obst. Gynecology. 2018. P. 1-5. [Электронный ресурс] // [Epub ahead of print] Vol. Pages 1-5.