Review

Progress in nursing methods for chronic pelvic inflammatory disease

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Abstract

Chronic pelvic inflammatory disease is a highly common gynecological disease. It is often caused by the failure to completely treat acute pelvic inflammatory disease or persistent disease due to the poor physique of patients. This paper provides a summary of the recent research studies on chronic pelvic inflammatory disease.

Chronic pelvic inflammatory disease is a highly common gynecological disease. It is often caused by the failure to completely treat acute pelvic inflammatory disease or persistent disease due to the poor physique of patients^[1]. Its main pathological changes include the inflammatory hyperplasia of pelvic connective tissue, the adhesion and inflammatory mass of internal genital organs, and the dysfunction of the ovaries and fallopian tubes. Chronic pelvic inflammatory disease is characterized by its long duration, high recurrence rate, and refractoriness. Moreover, it is a common cause of ectopic pregnancy, infertility, pelvic pain, and pelvic adhesions. It seriously affects and threatens the mental and physical health of women and reduces the quality of life of patients. In recent years, this disease has attracted increased attention from gynecologists given its high prevalence (approximately 35% of gynecological inflammation cases)^[2] and severe outcomes, including infertility, tubal pregnancy, and chronic pelvic pain. Clinicians and researchers have expended considerable effort to improve the recovery rate and the quality of life of patients with chronic pelvic inflammatory disease. The recovery rate, comfort, and quality of life of patients have also greatly improved because of the hard work of nursing workers. In addition, nursing quality has also effectively improved.

Common treatment methods and treatment administration

Numerous treatment methods for chronic pelvic inflammatory disease have become available with the continuous development of medicine. The methods adopted by medical institutions at various levels vary in accordance with the conditions and medication habits of patients. The most commonly provided treatment methods are as follows.

Antibiotic therapy

The most common medications for chronic pelvic inflammation are antibiotics, which are administered orally or intravenously. However, unless chronic pelvic inflammatory disease occurs in acute attacks, the oral or intravenous administration of antibiotics is not encouraged because liquid antibiotics do not easily enter the inflamed local tissue, fails to reach the effective concentration, is prone to drug resistance, and may cause adverse reactions^[4-5]. Currently, antibiotic therapy is rarely used alone. To enhance the curative effect of antibiotics, many clinicians have adopted other methods based on the characteristics of chronic pelvic inflammation. Lv Weixia *et al.*^[6] adopted pelvic perfusion with antibiotics to obtain a satisfactory therapeutic effect. Their combined treatment shortened treatment duration and eased the adverse effects of antibiotics. This treatment method should be popularized due to its low cost, practicability, and facile procedure. Shi Yongmei *et al.*^[7] treated chronic pelvic inflammatory disease via the combined methods of antibiotic intravenous drip and antibiotic retention enema.

The combined treatment increased the curative effect and effectively decreased recurrence rate. This method is also worthy of reference.

Treatment of pelvic inflammation using a therapeutic instrument

The multifunctional therapeutic instrument can promote local blood circulation in the pelvic cavity, and improve the nutritional status and metabolism of tissue. It is conducive to the absorption and elimination of inflammation, and can enhance the therapeutic effect of administered drugs. Zhao Qiufang^[8] utilized a therapeutic instrument for pelvic inflammation to assist the administration and enhance the therapeutic effect of medication, thus addressing symptoms and root cause. Therefore, this treatment method has considerable clinical significance.

Traditional Chinese Medicine treatment

Practitioners of traditional Chinese medicine (TCM) have accumulated rich experience in the treatment of chronic pelvic inflammatory disease. TCM treatments provide significant therapeutic effects that are recognized by scholars and patients. TCM treatments are provided in accordance with syndrome differentiation and patient characteristics. Although physicians use different TCM formulas and techniques, these treatment methods provide similar effects with high efficacy, low cost, and limited adverse reactions. The most common treatment methods are herbal oral administration and herbal enemas, the combination of herbal oral administration and herbal enema, the combination of herbal oral administration and external application, and acupuncture physiotherapy^[9]. Zhou Ying *et al.*^[10] adopted the combination of herbal oral administration and herbal enema for the treatment of chronic pelvic inflammatory disease. They reported a remarkable curative effect of 95% using this method. Gao Cuixia^[11] adopted the combination of herbal oral administration and external application to treat chronic pelvic inflammatory disease and reported a total effective rate of 100%. Based on these results, TCM is worth popularizing.

Combination of TCM and Western medicine

Wang Yan^[12] adopted the combined methods of TCM and Western medicine to treat chronic pelvic inflammatory disease. They integrated the ultrashort wave method with enema-administered Chinese medicine to significantly

improve the curative rate of the treatment method. The combined method considerably improved the quality of life of patients with chronic pelvic inflammatory disease, thus indicating its potential for further clinical application and practice. Wang Yongjun^[13] treated patients with the oral administration of Chinese medicine and antibiotics. Their combined method achieved a total effective rate of 100% and the cure rate of 93.6%. This method is worth using for reference.

Surgical treatment

For pelvic inflammatory cysts, fallopian tube obstruction, or hydrosalpinx, surgical dredging or resection can be considered if conservative treatments are ineffective. Given that this review focuses on the nursing of patients who underwent conservative treatment, the nursing of patients who underwent surgical treatment will not be discussed here.

Nursing

Mental nursing

The importance of mental nursing is widely recognized by clinicians. Chronic pelvic inflammatory disease has a prolonged duration and recurrent attacks. Moreover, it is difficult to treat and inflicts considerable physical and mental pain on patients. Patients often lose confidence in the treatment of the disease and fear refractory disease. The poor mood of patients also causes visceral dysfunction, further aggravating the illness^[14]. Man Li *et al.*^[15] assessed the psychological state of patients with chronic pelvic inflammatory disease. They reported that patients exhibited different degrees of psychological disorders, which presented as self-abasement and negative coping. They also reported that these psychological disorders are aggravated by limited social support. Meng Qingling^[16] also reported that patients with chronic pelvic inflammatory disease have some psychological problems, including depression and anxiety. Through systematic psychological nursing intervention, Zhang Yujia^[17] effectively decreased the influence of anxiety, irritability, and depression on the disease, thus improving nursing and therapeutic effect. Yang Fengjiao *et al.*^[18] effectively improved therapeutic efficacy and the quality of life of patients through systematic nursing intervention. Ma Jun^[19] proposed that nursing workers should take the initiative in caring for patients. To achieve a good treatment and nursing effect, nurses should explain the occurrence,

development, and treatment of this disease to patients. Doing so will enable patients to feel confident and optimistic about treatment, will encourage patients to cooperate, and will prevent the patients' poor mental states from interfering with treatment.

Rest and diet

Patients with chronic pelvic inflammatory disease and poor physique should strike a proper balance between work and rest. Patients should avoid overwork and perform proper physical exercise to strengthen their physique. During an acute attack of the disease, patients should stay in bed, preferably in a semi-recumbent position, which facilitates pus accumulation in the rectum and uterine depression, as well as limits inflammation^[6]. To strengthen disease resistance, diets should be supplemented with vitamin C and trace elements, including calcium, iron, and zinc. Patients should avoid eating spicy, stimulating, and greasy food, particularly during menstruation, puerperium, and after abortion^[20]. TCM theory states that most patients with pelvic inflammatory disease are weak with blood stasis. Thus, their diets should be light, easy to digest, and rich in nutrients. Different foods should be selected for patients with different physiques. Zhu Xiaohong^[21] believed that patients who feel pain and a cold sensation in their lower abdomen should take ginger, brown sugar water, longan pulp, and other warm foods. Patients with dysphoria in the chest, palms, and soles should eat meat, eggs, blood, and other rich foods. Patients receiving retention enema with Chinese Medicine should not eat stimulating food and food that speeds up peristalsis to avoid affecting the retention time of drugs^[22].

Nursing care of patients receiving different administrations

Nursing care for antibiotic therapy Patients should be asked whether there is any history of drug allergy before the oral or intravenous administration of drugs. After drug administration, the effect of treatment and adverse reactions should be closely observed.

Nursing care for pelvic perfusion The treatment method should be explained to the patients prior to administration to achieve patient compliance. Medical treatment should be prepared in accordance with the physician's instructions. The patient reclines in a supine position after emptying the bladder. After the routine disinfection of the puncture site, the patient is instructed to gently pluck up the skin of the lower abdomen. Then, a No.18 vein detained needle

is used to puncture vertically into the abdominal cavity at anti-McBurney's point. The needle core is pulled out and the disposable infusion tube is connected to fill the abdominal cavity with liquid medicine. After operation, the patient is instructed to rest in a semi-recumbent position. The accumulation of liquid medicine in the pelvic cavity is conducive to the action of drugs on the lesion^[6].

Nursing care for drug retention enema Chinese herbal enema have been conducted for thousands of years. The drug is not orally administered, thus avoiding the effects of gastric acid and enzymes on the drug. In addition, this method also avoids gastrointestinal irritation caused by the administered drugs and decreases damage to the liver. High concentrations of the drug directly enter the pelvic cavity, thus exerting a strong effect^[22]. This method has been increasingly utilized. Extending drug retention during the enema treatment has become a hot spot in academic research. The common method is to administer the enema to the patient before sleep. Before the operation, the patient is asked to empty stool and urine to clean the intestines, thus improving drug adsorption. The temperature of the medicine is 38 °C–40 °C. The amount of liquid medicine should be 100 mL. The patient takes the left lateral decubitus position. The enema nozzle is gently inserted to a depth of approximately 13 cm. The liquid drug is slowly fed under low pressure. After pulling the nozzle from the anal canal, the anus should be gently massaged. The patient is instructed to retain the liquid drug for more than 1 h^[23]. Through the study of evidence-based nursing methods, Yuan Xiaoyan^[24] has changed the traditional enema to a disposable infusion apparatus connected with a disposable sputum suction tube. The body position of the patient is changed from traditional left lateral decubitus to knee-breast decubitus, and the insertion depth is increased to 25–30 cm. The drip rate of the liquid drug is slowed down to 30–60 drops per minute. The temperature of the liquid drug is based on rectal temperature before enema treatment. The standard enema temperature is usually 1 °C–2 °C higher than the rectal temperature of the patient to minimize irritating the intestine. Drug retention time can be increased to strengthen drug efficacy. This treatment method is worth popularizing. Ma Caiying^[25] adopted the comfortable nursing method in enema operation. This method requires a comfortable environment, equipment, and position. The operation should be done as much as possible to increase patient comfort and reduce irritation. Given its satisfactory results, this method is worth teaching to nursing workers.

Nursing care for the external application of Chinese medicine, acupuncture, and physiotherapy The patients must be guided throughout the external application of Chinese medicine, acupuncture, and physiotherapy. The treatment method and precautions must be explained to patients to allow patients to understand and cooperate with treatment.

Health education and health care guidance

Surveys have shown that many women lack good health education. In addition, women with different social backgrounds have different health habits. The occurrence and development of gynecological diseases are closely related to health habits and the lack of preventative health knowledge^[26]. Scientific guidance for the development of good habits among patients can decrease disease incidence and is conducive to rehabilitation and recovery. Gu Qing *et al.*^[20] developed the following recommendations for patients with chronic inflammatory pelvic disease: (1) Vaginal bleeding occurs during menstruation and after induced abortion, fitting and removal of contraceptive rings, and other gynecological surgery. During periods of vaginal bleeding, the patient's immunity decreases, facilitating invasion by pathogenic bacteria and resulting in infection. Therefore, sexual activity, swimming, tubbing, and sauna are prohibited during periods of vaginal bleeding. Moreover, sanitary towels must be frequently replaced. (2) To block infection routes, the perineum must be kept clean and dry. The vulva must be cleaned using clean water every night, with one basin per person. Do not use the hand to palpate and wash the vagina, and do not use hot water and soap to wash the vulva. Patients with pelvic inflammation will experience excessive and thick leucorrhea. Thus, underwear should be changed frequently. Moreover, tight underwear with synthetic fabrics should not be worn. (3) Positively cooperate with treatment and following the physician's advice. Avoid exhaustion and strike a proper balance between work and rest. Control sexual intercourse. Rest in a half-supine position to improve the localization of inflammation and the discharge of secretions. Rong Xiaoxiang^[27] recommended that patients with chronic pelvic inflammatory disease should focus on self health care, diet, and exercise to enhance their resistance and decrease disease recurrence.

To summarize, pelvic inflammation is a common gynecological disease with a high incidence and repeated attacks. It seriously affects the patient's physical health, as

well as exerts a physical and mental burden on patients, thus affecting the work and life of patients. Nursing workers should adopt systematic nursing intervention to effectively promote patient rehabilitation and to significantly improve the survival and the quality of life of patients. Meanwhile, patient satisfaction, the doctor-patient relationship, and nursing quality should be improved. Nursing work for the prevention and reduction of the occurrence of chronic pelvic inflammatory disease should be further studied.

Declarations

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No.

Competing interests

The author declares that he has no competing interest.

Authors' contributions

B Wang made the literature analysis and wrote, discussed and revised the manuscript of this review.

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