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Nursing Experience on a Case of Postoperative Pelvic Encapsulated Effusion after Uterine Fibroid Surgery Treated with Combined External Application of Huangbai Ointment and Mirabilite

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Abstract

This paper summarizes the nursing essentials of integrated Chinese and Western medicine with combined internal and external treatment for a patient with pelvic encapsulated effusion following uterine fibroid surgery treated with external application of Phellodendron ointment combined with Mirabilite, encompassing the implementation of TCM characteristic nursing care, pain management, emotional nursing care, and dietary nursing based on syndrome differentiation through TCM syndrome differentiation, thereby providing an experiential and practical foundation for the integrated Chinese and Western medicine treatment and nursing of such patients.

Full Text

Nursing Experience of Huangbai Ointment Combined with Mirabilite External Application in the Treatment of a Patient with Pelvic Encapsulated Effusion After Uterine Fibroid Surgery

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Abstract

This article summarizes the key nursing considerations in the integrated Chinese and Western medicine treatment of a patient with pelvic encapsulated

effusion following uterine fibroid surgery, using Huangbai ointment combined with mirabilite external application. The nursing approach encompassed TCM characteristic care based on syndrome differentiation, pain management, emotional adjustment, and dietary guidance according to pattern differentiation. These measures provide valuable experience and a practical foundation for the integrated treatment and nursing care of similar patients.

Keywords: Huangbai Ointment; Mirabilite External Application; Pelvic Encapsulated Effusion; Traditional Chinese Medicine Nursing

Introduction

Uterine fibroids are benign tumors arising from the smooth muscle tissue of the uterus, commonly presenting with symptoms such as menstrual abnormalities, lower abdominal masses, increased leukorrhea, and pelvic pressure, and may even lead to infertility or miscarriage. They predominantly affect women aged 30–50 years, with an incidence of 20%–40% among women of reproductive age [1]. Hysterectomy and myomectomy remain the primary treatment modalities. Pelvic encapsulated effusion represents a frequent complication following gynecological pelvic surgery [2], clinically manifesting as persistent or cyclical lower abdominal pain and rectal pressure, significantly impacting patients' quality of life and prognosis. Current understanding attributes its formation primarily to recurrent pelvic inflammatory disease, tissue adhesions, and infections resulting from abdominal and pelvic surgeries [3]. Conventional treatments predominantly involve surgery or ultrasound-guided drainage, which carry risks of high recurrence rates, potential dissemination of malignant lesions, and infection [4–5]. In recent years, traditional Chinese medicine has demonstrated definitive efficacy in treating pelvic encapsulated effusion [6], emerging as an alternative therapeutic option for patients.

This study summarizes the nursing experience of treating one case of pelvic encapsulated effusion following uterine fibroid surgery with Huangbai ointment combined with mirabilite external application, providing clinical experience for the treatment and nursing care of such conditions.

Case Report

Clinical Data

The patient was a 34-year-old female admitted on July 6, 2023, after discovering a pelvic mass for over one year. TCM diagnosis: Accumulation disease, qi stagnation and blood stasis pattern. Western medicine diagnosis: Uterine leiomyoma. On admission, the patient's general condition was fair, with no abdominal pain or fever, normal appetite and sleep, and regular bowel and urinary function. Tongue presentation was dark red with petechiae on the edges, white coating, and a wiry pulse. Pelvic ultrasound revealed an approximately 80\$×64mm solid hypoechoic mass on the left side of the uterus with relatively clear borders, irregular edges, and the

mm anechoic cystic area was observed in the left adnexal region with clear boundaries, regular edges, and posterior echo enhancement. The impression was a solid mass on the left side of the uterus (subserosal fibroma could not be excluded).

Following admission, preoperative examinations were completed. On July 10, 2023, the patient underwent laparoscopic myomectomy under general anesthesia. Postoperative pain was assessed as 3 points on the Numeric Rating Scale (NRS), indicating mild pain. Routine postoperative treatment was administered.

On postoperative day 3, the patient reported lower abdominal pain with an NRS score of 5, indicating moderate pain. Body temperature was 38.2°C. An urgent pelvic ultrasound was performed, revealing a hypoechoic area above the uterus and bladder measuring approximately 90\$×61×51mmwithclearboundaries,regularmorphology,andheterogeneousechoes.ColorDopplerflowimagingintervention,thepatient'slowerabdominalpainresolved,andfeversubsided.Pelvicultrasoundshowedthehypoechoic area above the uterus and bladder measuring approximately 90 mm with clear boundaries, regular morphology, heterogeneous echoes, and no obvious blood flow signals on CDFI. The patient was discharged.

Nursing Care

Nursing Assessment

Pain Assessment: The Numeric Rating Scale (NRS) was used to evaluate pain intensity, dividing pain into 10 levels that patients could quantify from 0 to 10. A score of 0 indicated no pain, 1–3 indicated mild pain, 4–6 indicated moderate pain, 7–9 indicated severe pain, and 10 indicated unbearable pain, with higher scores representing greater pain intensity.

Anxiety Assessment: The Hospital Anxiety and Depression Scale (HADS) was employed for evaluation. Scores of 0–7 indicated no symptoms, 8–10 indicated possible symptoms, and 11–21 indicated definite presence of symptoms.

Nursing Analysis

The patient's pain and elevated temperature were related to the development of postoperative pelvic encapsulated effusion. Anxiety factors were associated with postoperative complications and lack of understanding about the condition.

TCM Characteristic Nursing Intervention

Mirabilite External Application: Mirabilite was applied to the lower abdomen using the following method: 500 g of mirabilite was evenly spread in a 30 cm × 20 cm cotton bag and applied to the lower abdomen (avoiding the laparoscopic incision site) for 20–30 minutes, once daily. Following mirabilite application, Huangbai ointment was applied until the next day. The ointment should be of moderate moisture and uniform thickness, generally 0.2–0.5 cm.

Precautions included: (1) assessing skin condition at the application site before procedure; (2) maintaining appropriate room temperature; (3) limiting mirabilite application to 20–30 minutes; (4) discontinuing treatment immediately and reporting to the physician if blisters, itching, pain, or ulceration occurred during treatment.

Conventional Nursing Measures

Pain Management: Nurses explained the basic knowledge of pain etiology and patterns to improve patient anxiety, provided emotional support to enhance pain tolerance, and maintained a quiet, comfortable ward environment. Traditional Chinese five-element music therapy was administered, and breathing adjustment techniques were taught to divert attention from pain. When pain was particularly pronounced, manual interventions such as warm compresses were applied to alleviate symptoms.

Emotional Care: A comprehensive assessment of the patient's psychological status was conducted. Humanistic care was implemented through enhanced communication, with attention to eye contact, body language, and tone during interactions. Negative emotions were promptly addressed through education about pelvic encapsulated effusion to improve disease awareness. Distraction techniques included casual conversation, and soothing, relaxing music was played to shift the patient's focus.

Dietary Guidance According to Pattern Differentiation: The patient's pattern belonged to accumulation disease with qi stagnation and blood stasis. The diet should consist of foods that clear heat, resolve dampness, transform stasis, and relieve pain, emphasizing light, easily digestible, high-protein nutritious foods such as lean meat, poultry, and eggs to strengthen constitution. Raw, cold, greasy, spicy, and seafood foods should be avoided, such as bitter melon and winter melon. A recommended dietary formula was winter melon and red bean soup.

Medication Guidance: Patient responses to medication were observed for allergic reactions or other adverse effects. Patients were instructed to take herbal decoctions warm after meals, with at least a 30-minute interval from other medications to avoid incompatibility. During medication periods, raw, cold, greasy foods, seafood, scallions, garlic, chives, and leeks should be avoided, as well as smoking, alcohol, and tea. Any nausea, vomiting, diarrhea, or abdominal pain after medication should be reported to medical staff immediately.

Discussion

Pelvic encapsulated effusion is a relatively common gynecological condition, also known as pelvic inflammatory encapsulated cyst or pelvic peritoneal cyst, which mostly occurs secondary to gynecological pelvic surgery or pelvic inflammation [7]. As a challenging gynecological condition, conventional clinical treatment primarily focuses on anti-infection therapy as the first-line approach, though

anti-infective drugs often produce adverse reactions [8]. While surgery is also a treatment option, it causes bodily harm and carries a high recurrence rate with risk of pelvic inflammatory dissemination [9]; therefore, surgical necessity must be determined based on disease severity [10]. The patient in this case had already undergone one surgery and could not accept another operation in the short term, making conservative treatment with integrated Chinese and Western medicine the most effective current option.

TCM external therapy constitutes an important component of traditional Chinese medicine, together with internal therapy forming a complete treatment system that continues to evolve. External therapy is defined relative to internal therapy (oral medication). The *Dictionary of Traditional Chinese Medicine* states: “TCM external therapy generally refers to therapeutic methods applied to the body surface or administered from outside the body, excluding oral medications” [11]. Mirabilite external application represents a significant part of TCM external therapy. Mirabilite has effects of purgation, moistening dryness and softening hardness, and clearing fire to reduce swelling. The *Mingyi Biebu* records: “It treats accumulation in the five viscera, chronic heat with gastric obstruction, eliminates pathogenic qi, breaks blood stasis, phlegm and solid accumulations in the abdomen, unblocks meridians, facilitates bowel movements and menstruation, breaks five types of lin syndrome, and eliminates the old while generating the new” [12]. Mirabilite external application can be used for mastitis, skin furuncles, local edema, and also treats suppurative appendicitis, skin abscesses, and erysipelas with anti-inflammatory, anti-infective, and diuretic swelling-reducing effects.

Phellodendron (Huangbai) is the dried bark of *Phellodendron chinense* Schneid., commonly known as “Sichuan Huangbai.” Its medicinal properties are bitter and cold, entering the kidney and bladder meridians, with functions of clearing heat and drying dampness, particularly effective at eliminating lower jiao damp-heat and detoxifying to treat sores [13]. The chemical components of Huangbai primarily include alkaloids, obaculactone, obacunone, obacunoic acid, and other bitter principles, as well as sterols such as 7-dehydrostigmasterol, B-sitosterol, and campesterol. Modern research on Huangbai’s active components has focused mainly on alkaloids, which have been proven to possess extensive pharmacological effects [14-15], including anti-inflammatory, antibacterial, antioxidant, anti-tumor, hypoglycemic, neuroprotective, and anti-diarrheal activities. Huangbai ointment is a commonly used external oil-based preparation in our hospital, with Huangbai as its single medicinal ingredient, particularly effective for heat patterns, blood patterns, and sores and toxins. Research has demonstrated that Huangbai exhibits inhibitory effects on various bacteria including *Staphylococcus aureus*, Gram-negative bacilli, *Bacillus subtilis*, and *Escherichia coli*. Huangbai preparation external application shows significant anti-inflammatory and fever-reducing effects, promotes absorption of extravasated blood within tissues, and can serve as a non-surgical treatment option for gynecological hematomas [16]. The combined use of mirabilite and Huangbai ointment achieves satisfactory anti-inflammatory and swelling-reducing effects.

Conclusion

In summary, applying TCM syndrome differentiation to implement TCM characteristic nursing, pain management, emotional care, and dietary guidance according to pattern differentiation leverages the advantages of TCM characteristic nursing techniques. This approach successfully helped the patient avoid secondary surgery, reduced suffering, and provides valuable experience and a practical foundation for the integrated Chinese and Western medicine treatment and nursing care of similar patients.

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