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Editorial Board Member of *World Journal of Psychiatry*, Thomas Sobanski, MD, Chief Doctor, Senior Research Fellow, Department of Psychiatry, Psychotherapy, and Psychosomatic Medicine, THUERINGEN-Kliniken GmbH, Saalfeld D-07318, Germany. [tsobanski@thueringen-kliniken.de](mailto:tsobanski@thueringen-kliniken.de)

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## Retrospective Study

# Application of traditional Chinese medicine acupoint needle embedding combined with emotional nursing in patients with gynecological malignant tumors

Zhen Ren, Wen Cui, Ya-Ping Li

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**Zhen Ren**, First Affiliated Hospital, Heilongjiang University of Chinese Medicine, Harbin 150040, Heilongjiang Province, China

**Wen Cui**, Department of Rehabilitation and Health Care, Jinan Vocational College of Nursing, Jinan 250102, Shandong Province, China

**Ya-Ping Li**, School of Nursing, Shandong University of Traditional Chinese Medicine, Jinan 250355, Shandong Province, China

**Corresponding author:** Ya-Ping Li, MM, Doctor, School of Nursing, Shandong University of Traditional Chinese Medicine, No. 4655 Da-Xue Road, Changqing District, Jinan 250355, Shandong Province, China. [shuangyuzuo\\_1980@163.com](mailto:shuangyuzuo_1980@163.com)

## Abstract

### BACKGROUND

Few relevant literature reports on applying acupoint press-needle embedding combined with emotional nursing in patients with a gynecological malignant tumor.

### AIM

To explore the effect of traditional Chinese medicine acupoint needle embedding combined with emotional nursing on chemotherapy-related nausea and vomiting (CINV), cancer-related fatigue (CRF) and psychological state in patients with gynecological malignant tumors.

### METHODS

Retrospective analysis of the clinical information of 84 patients with gynecological malignant tumors treated in our hospital from August 2020 to December 2022. Led to the development of an observation group ( $n = 42$ ) and a control group ( $n = 42$ ) based on various nursing approaches. Ondansetron hydrochloride injection was administered to the individuals in the control group. However, the observation group received emotional nursing based on the control group and acupoint press-needle embedding of traditional Chinese medicine. Patients in both groups received the chemotherapy regimen of paclitaxel liposome + carbo-platin/cisplatin. For four weeks, both groups intervened. The CINV grade, quality of life, CRF, psychological status and sleep quality scores of the two groups before and



after intervention were compared.

## RESULTS

After intervention, the degree of CINV in the observation group was significantly better than that in the control group. After intervention, the scores of each dimension and total score of FLIE scale were significantly higher than those in the control group. After intervention, the scores of each dimension and total score of Piper Fatigue Scale were significantly lower than those in the control group ( $P < 0.05$ ). After intervention, the scores of avoidance and yield dimensions in the observation group were significantly lower than those in the control group, and the scores of confrontation dimension were significantly higher than those in the control group ( $P < 0.05$ ). After intervention, the sleep quality score of the observation group was significantly lower than that of the control group, and the Karnofsky Performance Status scale score was significantly higher than that of the control group ( $P < 0.05$ ).

## CONCLUSION

The acupuncture point needle embedding of traditional Chinese medicine combined with emotional nursing can further reduce the incidence of chemotherapy-related nausea and vomiting in patients with gynecological malignant tumors, improve the quality of life and the degree of CRF, alleviate the bad psychological state, adopt a positive way to face the disease and treatment, and improve the quality of sleep and quality of life.

**Key Words:** Press-needle; Acupoint; Emotional nursing; Gynecologic malignant tumor; Sleep quality; Chemotherapy-induced nausea and vomiting; Cancer-related fatigue; Mental state

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**Core Tip:** Nausea, vomiting and cancer-related fatigue (CRF) are the most common symptoms during chemotherapy in patients with gynecological malignant tumors. If timely and effective nursing intervention is not given, it is easy to affect the quality of life of patients. Acupressure needle has the advantages of simple operation, safety and convenience, while emotional nursing can effectively alleviate the negative emotions of patients with malignant tumors during chemotherapy. The combination of the two can effectively reduce the incidence of nausea and vomiting, improve the quality of life and the degree of CRF in patients with gynecological malignant tumors.

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## INTRODUCTION

Cervical, ovarian, and endometrial cancer are the three most prevalent gynecological malignancies, accounting for approximately 18% of all tumors worldwide[1]. The incidence rate has been rising recently, significantly negatively affecting women's physical and emotional health. Chemotherapy, which can efficiently eliminate cancerous cells and increase patients' overall survival times, is currently the preferred clinical treatment technique. However, while treating diseases, chemotherapy can also suppress normal cells, resulting in the suppression of the immune function of patients and negative responses, such as vomiting and nausea, peripheral neurotoxicity, a decrease in hematopoietic stem cell level, *etc*[2], as well as cancer-related fatigue (CRF), thus affecting patients' chemotherapy compliance. Chemotherapy-induced nausea and vomiting (CINV), which can occur in up to 70% of patients with gynecological malignant tumors during chemotherapy, is the most common adverse response. If not prevented and treated promptly and effectively, it can easily lead to eating difficulties in patients and even an imbalance of water, electrolyte, and acid-base balance in severe cases[3]. CRF is a term used to describe severe, continuous, psychological fatigue in physical, emotional, or cognitive aspects unrelated to recent activities caused by a tumor or tumor treatment and interferes with everyday activities. According to incomplete statistics[4], about 57.84% of patients with gynecological malignant tumors will have CRF during chemotherapy, which is easy to increase the pain of patients and affect the quality of sleep and life. Western medicine mainly uses 5-HT<sub>3</sub> receptor antagonists, NK-1 receptor blockers, glucocorticoids and other drugs to treat CINV, which can effectively prevent patients from developing CINV. Still, some patients are prone to constipation, headache and other adverse reactions after Western medicine treatment[5].

Traditional Chinese medicine (TCM) has an extensive history of treating gastrointestinal side effects brought on by chemotherapy and offers the benefits of safe use, ease of use, cheap cost, and lack of side effects, *etc*. The external treatment of traditional Chinese medicine has formed a systematic theory and specific methods in developing traditional Chinese medicine for thousands of years, mainly including press-needle embedding, acupoint application, acupuncture, emotional therapy, *etc*. Acupoint press-needle embedding is a type of external treatment of TCM, which can induce continuous weak stimulation at the acupoint by penetrating the needle into the subcutaneous area of a specific acupoint

[6]. It has the advantages of simple operation, safety and convenience. Emotional nursing is a type of TCM nursing technology that consists of the language guidance method, emotion inter-resistance treatment, and emotional desire adjustment. It can easily relieve the negative emotions of cancer patients undergoing chemotherapy[7]. Few relevant literature reports on applying acupoint press-needle embedding combined with emotional nursing in patients with a gynecological malignant tumor. The clinical effectiveness of acupoint press-needle embedding and emotional nursing in individuals with gynecological cancer is examined in this study using a retrospective analysis method.

## MATERIALS AND METHODS

### Clinical data

A retrospective analysis was done on the clinical data of 84 patients who received chemotherapy for gynecological malignant tumors at our institution between August 2020 and December 2022. (1) Inclusion criteria: Aged 18-80 years old; the patient was diagnosed with a gynecological malignant tumor by postoperative pathological and cytological examination. Patients who needed chemotherapy; Karnofsky Performance Status scale (KPS) score  $\geq 70$  points; No other antiemetic drugs were taken 48 h before chemotherapy; Complete clinical data; and (2) Exclusion criteria: Patients with liver and kidney insufficiency; Nausea and vomiting caused by intracranial hypertension, vestibular dysfunction and digestive system diseases; Those with contraindications to press-needle; Mental disorders and cognitive disorders; incomplete case data. The 84 patients were grouped into a control group ( $n = 42$ ) and an observation group ( $n = 42$ ) using various nursing techniques.

### Methods

Liposome + carboplatin/cisplatin. The control group was given an injection of 0.9% sodium chloride (Sichuan Kelun Pharmaceutical Co., Ltd., Approval No. H20056626), a 100 mL injection of ondansetron hydrochloride [Qilu Pharmaceutical Co., Ltd., (No. H10970065)], and 8 mg intravenously 15 min before chemotherapy. Based on the control group, the observation group received acupoint press-needle embedding treatment and emotional nursing. The acupoints of Guanyuan, Dazhui, bilateral Geshu, Zusanli and Shenshu were selected for press-needle treatment, used alcohol to disinfect the patient's skin at the corresponding acupoint, used tweezers to remove the disposable press-needle, quickly attached the press-needle to the acupoint, pressed and smoothed. The operation was performed at the beginning of chemotherapy, the patient was instructed to press intermittently during treatment, the needle could be removed after 2 d, and the press-needle embedding therapy was performed once every 3 d. Emotional nursing: Chinese medical nursing staff carried out emotional nursing, kept the indoor environment in a calm and bright state, and adopted emotional nursing methods such as language guidance method, emotion inter-resistance therapy, emotional transference method, calming mind method, and emotional desire adjustment: (1) Language guidance method: Following the start of chemotherapy, the responsible nurse assessed the patient's mental health and identified the root reasons for their depression, 30 min for each time; (2) Emotion inter-resistance therapy: After chemotherapy, music therapy was used to help patients relieve negative emotions, guided patients to watch skits, cross talk and other programs, and helped patients increase joy to reduce the sadness of patients; and (3) Emotional transference method: Guided patients to find their interests and hobbies, and transfer their attention to chemotherapy through painting, calligraphy, walking and other ways to alleviate bad emotions. The responsible nurse selected 2-3 emotional nursing methods daily and operated once daily. Both groups were treated for 4 wk.

### Observation indicators

Between the two groups, comparisons were made of the basic information, CINV grade, quality of life, CRF, coping style, and sleep quality scores: (1) General data questionnaire: including age, education level, primary tumor site, initial chemotherapy, KPS score and other clinical data; (2) CINV grade classification: Grade 0: No nausea or vomiting; Grade I: Nausea but no vomiting; Grade II: Intermittent vomiting with nausea; Grade III: Vomiting Needs Treatment; Grade IV: Excessive vomiting; CINV grades were assigned on the basis of patient's nausea and vomiting[8]; (3) Quality of life (QoL): The QoL of both groups before and after the intervention was evaluated by the Functional Living Index-Emesis (FLIE)[9], which was divided into two dimensions: nausea and vomiting. Each dimension had 9 items, each scoring according to 1 to 7 levels. The higher the score, the smaller the impact of CINV on functional living; (4) CRF: The Chinese version of the Revised Piper Fatigue Scale (PFS-R)[10] was employed to examine the level of fatigue in the two groups before and following the intervention. It consists of 22 questions and is categorized as follows: Behavior, emotion, perception, and cognition; (5) Mental state: The medical coping style scale[11] was applied to determine the coping style of both groups before and after the intervention, which was divided into three dimensions: Avoidance, yield and facing, with 20 items. The higher the score of each dimension, the more likely the patient was to adopt the coping style; and (6) Sleep quality: The Pittsburgh Sleep Quality Index (PSQI)[12] was utilized to examine 18 items, including seven aspects of sleep latency, sleep duration, sleep efficiency, sleep disorders, hypnotic drugs, and daily dysfunction. The scale ranged from 0 to 21, and the overall score was the average for each item. A total score of  $\leq 7$  suggested normal sleep quality and sleep disorders by a total score of  $\geq 8$ . The lower the patient's sleep quality, the higher the overall score.

### Data collection

Nursing staff who had been trained in a unified manner distributed the general information questionnaire and scales of quality of life, CRF, coping style, and sleep quality to the patients, explained the purpose of this study and the

precautions for filling in the patients before filling in, and checked whether the questionnaire and scale were missing after filling in to ensure the integrity of the questionnaire and scale.

### Statistical analysis

In this study, EpiData 3.0 software was used to input data by two people. The data obtained were analyzed and processed with SPSS25.0 software. The counting data is presented as “*n* (%)”, and the comparison was made using the chi-square test. The measurement data following the normal distribution were presented as mean  $\pm$  SD, and the *t*-test was employed for comparison. A *P* value < 0.05 was deemed as statistically significant for all analyses.

## RESULTS

### General data comparison between the two groups

**Table 1** demonstrates no statistically considerable variation in the basic data of both groups (*P* > 0.05).

### The CINV score comparison in both groups following treatment

Following the intervention, the observation group's CINV grade was considerably higher as compared to the control group (*P* < 0.05; **Table 2**).

### Comparison of pre-and post-intervention QoL values in both groups

The scores for each dimension and the FLIE scale's overall score before intervention did not significantly vary (*P* > 0.05) in both groups. With statistical significance (*P* < 0.05), the scores for each component and the overall FLIE scale score in the two groups were higher after the intervention. Following the intervention, the observation group's scores on each component and overall FLIE scale score were significantly higher than those of the control group (*P* < 0.05; **Table 3**).

### Comparison of CRF scores before and after intervention for both groups

Before the intervention, there was no statistically significant difference (*P* > 0.05) between the scores of each dimension and the total score on the PFS-R scale in both groups. After the intervention, the scores of each dimension and the total score of the PFS-R scale in the observation group were considerably lower than before the intervention (*P* < 0.05). In contrast, the scores of each dimension and the total score of the PFS-R scale of the control group pre- and post-the intervention did not demonstrate statistical significance (*P* > 0.05). **Table 4** shows that after the intervention, the score of each dimension and the overall score of the PFS-R scale in the observation group were significantly lower compared to the control group (*P* < 0.05).

### Comparison of coping style ratings before and after intervention in both groups

Before the intervention, no significant difference (*P* > 0.05) in the scores of medical coping strategies in both groups was observed. Both groups' avoidance and yield dimensions dropped after the intervention compared to before. The scores on the facing dimension improved (*P* < 0.05) compared to those before the intervention. Following the intervention, the observation group's scores for the avoidance and yield dimensions were significantly lower than those of the control group. The face dimension score was significantly higher compared to the control group (*P* < 0.05; **Table 5**).

### Evaluation of both groups' KPS scores and sleep quality pre- and post-intervention

Both groups had no significant change (*P* > 0.05) before the intervention in sleep quality or KPS score. Both groups' sleep quality and KPS scores dropped significantly (*P* < 0.05) after the intervention compared to before. As shown in **Table 6**, the observation group's sleep quality score was considerably lower than the control group's after the intervention, while the control group's KPS score was significantly higher (*P* < 0.05).

## DISCUSSION

Epidemiological research shows that<sup>[13]</sup> the number of patients diagnosed with gynecological malignancies and the number of deaths from such diseases are increasing yearly and have obvious characteristics such as low age and high malignancy, which seriously affect the physical and social psychological health of contemporary women. There are many treatments for gynecological malignant tumors. Adjuvant chemotherapy is an important measure to improve the postoperative survival rate. Since vomiting and nausea are frequent side effects of chemotherapy, therapeutic attention has turned to preventing and treating CINV. Previous clinical studies have suggested that the vomiting mechanism is complex, mainly because the neurotransmitter receptors on the gastrointestinal pheochromocytoma combine with chemotherapy drugs to stimulate the brain centre and send signals to the organs and tissues of the upper digestive tract to complete the vomiting reflex. Among them, important neurotransmitters such as 5-HT and substance P participate in the reaction and bind to the 5-HT<sub>3</sub> receptor and NK-1 receptor, respectively<sup>[14]</sup>.

Therefore, Western medicine often uses 5-HT<sub>3</sub> receptor antagonists and NK-1 receptor blockers to prevent nausea and vomiting<sup>[15]</sup>, but long-term use is prone to adverse reactions. Compared with traditional acupuncture, the diameter of the press needle is generally about 0.20 mm, and the length of the needle body varies from 0.30 to 5.00 mm. After the



Table 1 shows the comparisons of demographic data between the two groups, *n* (%)

Item		Observation group ( <i>n</i> = 42)	Control group ( <i>n</i> = 42)	<i>t</i> / $\chi^2$ value	<i>P</i> value
Age (yr, mean $\pm$ SD)		52.49 $\pm$ 7.65	52.18 $\pm$ 7.83	0.184	0.855
Primary tumor site	Ovarian cancer	14 (33.33)	15 (35.71)	0.236	0.889
	Endometrial carcinoma	3 (7.14)	2 (4.76)		
	Cervical cancer	25 (59.52)	25 (59.52)		
Primary chemotherapy	Yes	18 (42.86)	17 (40.48)	0.049	0.221
	No	24 (57.14)	25 (59.52)		
KPS score (points, mean $\pm$ SD)		82.56 $\pm$ 5.69	82.33 $\pm$ 5.87	0.182	0.856

KPS: Karnofsky Performance Status scale.

Table 2 Comparison of chemotherapy-related nausea and vomiting grade between the two groups after intervention, *n* (%)

Group	<i>n</i>	Grade 0	Grade I	Grade II	Grade III	Grade IV
Observation group	42	29 (69.05)	10 (23.81)	2 (4.76)	1 (2.38)	0 (0.00)
Control group	42	15 (35.71)	13 (30.95)	8 (19.05)	5 (11.90)	1 (2.38)
$\chi^2$ value		12.114				
<i>P</i> value		0.017				

Table 3 Compares both group's quality of life scores before and after the intervention

Group	<i>n</i>	Nausea dimension		Vomiting dimension		Total score	
		Pre-intervention	Post-intervention	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Observation group	42	32.30 $\pm$ 6.54	40.23 $\pm$ 4.52 <sup>a</sup>	32.77 $\pm$ 6.81	39.87 $\pm$ 5.36 <sup>a</sup>	63.54 $\pm$ 7.81	80.15 $\pm$ 6.52 <sup>a</sup>
Control group	42	32.08 $\pm$ 3.77	33.89 $\pm$ 3.59 <sup>a</sup>	32.59 $\pm$ 6.94	33.72 $\pm$ 5.47 <sup>a</sup>	63.37 $\pm$ 7.95	74.58 $\pm$ 7.16 <sup>a</sup>
<i>t</i> value		0.189	7.118	0.120	5.204	0.099	3.728
<i>P</i> value		0.851	0.000	0.905	0.000	0.921	0.000

<sup>a</sup>*P* < 0.05.Table 4 Comparison of cancer-related fatigue scores between both groups before and after intervention (points mean  $\pm$  SD)

Group	<i>n</i>	Behavior		Emotion		Perception		Cognition		Total score	
		Pre-in- tervention	Post-in- tervention	Pre-in- tervention	Post-in- tervention	Pre-in- tervention	Post-in- tervention	Pre-in- tervention	Post-in- tervention	Pre-in- tervention	After in- tervention
Observation group	42	3.84 $\pm$ 0.57	3.12 $\pm$ 0.84 <sup>1</sup>	3.91 $\pm$ 0.62	2.74 $\pm$ 0.36 <sup>1</sup>	3.74 $\pm$ 0.55	2.78 $\pm$ 0.67 <sup>1</sup>	3.91 $\pm$ 0.32	2.68 $\pm$ 0.36 <sup>1</sup>	4.11 $\pm$ 0.36	2.33 $\pm$ 0.41 <sup>1</sup>
Control group	42	3.67 $\pm$ 0.69	4.64 $\pm$ 0.97	3.85 $\pm$ 0.72	3.94 $\pm$ 0.47	3.66 $\pm$ 0.63	3.82 $\pm$ 0.54	3.88 $\pm$ 0.49	3.97 $\pm$ 0.52	3.94 $\pm$ 0.48	3.99 $\pm$ 0.56
<i>t</i> value		1.231	7.677	0.409	13.136	0.62	7.832	0.332	13.219	1.836	15.5
<i>P</i> value		0.222	0	0.683	0	0.536	0	0.741	0	0.07	0

<sup>1</sup>Indicates significant value.

**Table 5 Comparison of coping style scores between the two groups before and after intervention (points mean  $\pm$  SD)**

Group	n	Avoidance		Yield		Facing	
		Pre-intervention	Post-intervention	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Observation group	42	18.56 $\pm$ 1.25	11.21 $\pm$ 1.08 <sup>a</sup>	17.54 $\pm$ 1.37	10.23 $\pm$ 1.55 <sup>a</sup>	11.27 $\pm$ 1.58	19.52 $\pm$ 1.13 <sup>a</sup>
Control group	42	18.41 $\pm$ 1.38	13.64 $\pm$ 2.55 <sup>a</sup>	17.28 $\pm$ 1.49	12.19 $\pm$ 1.12 <sup>a</sup>	11.09 $\pm$ 1.67	14.16 $\pm$ 1.29 <sup>a</sup>
t value		0.522	5.687	0.832	6.642	0.507	20.255
P value		0.603	0.000	0.408	0.000	0.613	0.000

<sup>a</sup>P < 0.05.**Table 6 Comparison of sleep quality and Karnofsky Performance Status scale score between the two groups before and after intervention (points mean  $\pm$  SD)**

Group	n	PSQI scale		KPS score	
		Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Observation group	42	12.24 $\pm$ 2.57	6.54 $\pm$ 1.57 <sup>a</sup>	82.56 $\pm$ 5.69	79.85 $\pm$ 6.62 <sup>a</sup>
Control group	42	11.97 $\pm$ 2.98	9.51 $\pm$ 1.68 <sup>a</sup>	82.33 $\pm$ 5.87	75.71 $\pm$ 7.52 <sup>a</sup>
t value		0.445	8.371	0.182	2.678
P value		0.658	0.000	0.856	0.009

<sup>a</sup>P < 0.05.

PSQI: Pittsburgh Sleep Quality Index; KPS: Karnofsky Performance Status.

needle is inserted into the human body, there is almost no sense of acupuncture. After the needle is applied, it is buried in the body with glue and can be retained for a long time. It has the advantages of simple operation and low price. Traditional Chinese medicine acupoint press needles can achieve a sustained therapeutic effect by continuously stimulating the body and then prolonging the effect of acupuncture[15]. Previous studies have found that[16] applying an acupoint press needle in patients with dermatitis helps promote the blood circulation of patients and has a good analgesic effect. Emotional nursing affects patients' emotions through the words and behaviors of medical staff, thus improving patients' negative emotions, eliminating patients' worries and anxieties, and improving patients' anti-cancer concepts.

This study applied acupoint press needle and emotional nursing to gynecological malignant tumor patients receiving chemotherapy. The results showed that the observation group's post-intervention FLIE scale scores on each dimension and overall were considerably higher compared to the control group and that the observation group's post-intervention CINV grade was higher than that of the control group. The findings indicated that emotional nursing and acupoint press-needle embedding could further lower the prevalence of CINV in patients with gynecological malignant tumors and lessen the negative effects of nausea and vomiting on quality of life. CRF is a subjective feeling often associated with cancer patients. Unlike other common symptoms, CRF does not have obvious physiological changes or measurable physiological indicators[17].

Meanwhile, Chinese women are more tolerant and often hide their fatigue performance to avoid burdening their families, mistakenly believing that fatigue is only temporary. However, studies have shown[18] that persistent CRF leads to a higher risk of death. The findings of this research demonstrated that after the intervention, the observation group's PFS-R scale scores on each dimension and overall were lower than the control group. The statistical significance of the difference suggests that acupoint press-needle embedding combined with emotional caregiving can help reduce the severity of CRF in patients with gynecological cancerous tumors. The study's findings also revealed that the observation group's avoidance and yield dimension scores were significantly lower after the intervention than those of the control group.

Compared to the control group, their face dimension scores were significantly higher, their sleep quality scores were significantly lower, and their KPS scores were higher, indicating that the acupoint press-needle embedding combined therapy had an effect. The acupoint press-needle embedding may produce constant stimulation on particular acupoints, which can have the effect of antiemesis and lessen the negative effects of CINV on quality of life. With emotional nursing measures, the language guidance method, emotion inter-resistance therapy, emotional transference method, calming mind method and other methods were used to relieve the bad mood of patients. Music therapy was used to improve the cerebral cortex excitability to regulate the human body's mood, thus eliminating the tension, anxiety and other feelings of the human body, improving fatigue degree and sleep quality, and establishing confidence in treating disease.

## CONCLUSION

In conclusion, Chinese medicine acupoint needle embedding combined with emotional nursing can further reduce the incidence of chemotherapy-related nausea and vomiting in patients with gynecological malignant tumors, improve the quality of life and the degree of CRF, alleviate the bad psychological state, and adopt a positive way to face the disease and treatment, improve sleep quality and quality of life, which is worthy of clinical application.

## ARTICLE HIGHLIGHTS

### Research background

The number of patients diagnosed with gynecological malignant tumors and the number of deaths from such diseases are increasing year by year. At the same time, it has obvious characteristics such as low age and high malignancy, which seriously affects the physical and social mental health of contemporary women. Nausea and vomiting are common adverse reactions after chemotherapy. Therefore, preventing and improving chemotherapy-related nausea and vomiting has become a hot topic in clinical research. In the past, 5-HT<sub>3</sub> receptor antagonists, NK-1 receptor blockers and other drugs were used to prevent nausea and vomiting, but long-term use was prone to adverse reactions. The use of traditional Chinese medicine nursing measures has the advantages of simple operation and good safety.

### Research motivation

To observe the application value of traditional Chinese medicine acupoint needle embedding combined with emotional nursing in improving the adverse reactions of gynecological malignant tumor chemotherapy, which can effectively reduce the incidence of nausea and vomiting and cancer-related fatigue (CRF) caused by chemotherapy, improve the treatment confidence and improve the prognosis of patients.

### Research objectives

By observing the effect of traditional Chinese medicine acupoint needle embedding combined with emotional nursing on chemotherapy-related nausea and vomiting, CRF and psychological state in patients with gynecological malignant tumors, it is helpful to reduce the incidence of chemotherapy-related nausea and vomiting in patients with gynecological malignant tumors, improve the quality of life and the degree of CRF, alleviate the bad psychological state, adopt a positive and positive way to face the disease and treatment, and improve the quality of sleep and quality of life.

### Research methods

By observing the effect of traditional Chinese medicine acupoint needle embedding combined with emotional nursing on chemotherapy-related nausea and vomiting, CRF and psychological state in patients with gynecological malignant tumors, it is helpful to reduce the incidence of chemotherapy-related nausea and vomiting in patients with gynecological malignant tumors, improve the quality of life and the degree of CRF, alleviate the bad psychological state, adopt a positive and positive way to face the disease and treatment, and improve the quality of sleep and quality of life.

### Research results

By observing the application value of traditional Chinese medicine acupoint needle embedding combined with emotional nursing in patients with gynecological malignant tumors, it was found that acupoint needle embedding combined with emotional nursing had significant effects on reducing the incidence of adverse reactions to chemotherapy, improving CRF and quality of life of patients. The effect of this program on the long-term prognosis of patients with gynecological tumors still needs to be further verified.

### Research conclusions

Traditional Chinese medicine nursing program is of great significance to reduce the incidence of adverse reactions of chemotherapy in patients with gynecological malignant tumors and improve their quality of life.

### Research perspectives

In the future, it is necessary to further observe the effect of traditional Chinese medicine nursing technology on improving the long-term prognosis of patients with gynecological malignant tumors.

## FOOTNOTES

**Author contributions:** Ren Z initiated the project and designed the experiment; Cui W conducted clinical data collection; Li YP performed postoperative follow-up and recorded data; Ren Z conducted a number of collation and statistical analysis; Cui W wrote the original manuscript; Li YP revised the paper; all authors reviewed and approved the paper, and read and approved the final manuscript.

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**Country/Territory of origin:** China

**ORCID number:** Ya-Ping Li 0000-0002-8497-9441.

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