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Traditional Chinese Medicine Nursing for Gastrointestinal Function Recovery in Patients with Uterine Fibroids After High-Intensity Focused Ultrasound Treatment

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Objective: To investigate the effect of traditional Chinese medicine nursing scheme on gastrointestinal function recovery in patients with uterine fibroids after high-intensity focused ultrasound treatment.

Methods: By convenient sampling method, 110 patients who received high-intensity focused ultrasound treatment for uterine fibroids from January 2023 to December 2023 in HIFU Treatment Center, a Grade-III obstetrics and gynecology hospital in Shanghai were selected as the study objects and were divided into a control group (n = 54) and experimental group (n = 56) by non-synchronous control study. The control group was treated with conventional nursing mode, and the experimental group was treated with traditional Chinese medicine nursing plan for gastrointestinal function recovery of patients with uterine fibroids after sea aid treatment. The postoperative gastrointestinal function recovery, comfort level, mental health and nursing satisfaction of the two groups were compared.

Results: The gastrointestinal function recovery time, comfort status scale, anxiety self-rating scale, depression self-rating scale and nursing service satisfaction scale of experimental group were better than those of control group ($P < 0.05$).

Conclusion: The main finding of this study is that through traditional Chinese medicine nursing programs, early gastrointestinal function can be improved in patients with uterine fibroids treated with high-intensity focused ultrasound, promoting gastrointestinal function recovery. The secondary finding is that the implementation of traditional Chinese medicine nursing programs can alleviate the negative emotions of such patients and improve clinical nursing satisfaction, which is worthy of clinical promotion.

Keywords: traditional Chinese medicine nursing program, HIFU treatment, gastrointestinal function, post-HIFU treatment

Uterine fibroids are the most common benign tumors in gynecology. The treatment of uterine fibroids includes drug therapy and surgical therapy. Drug therapy can shrink fibroids, but the medication cycle is long, and the curative effect is not lasting. The trauma of open surgery is large, which is easy to cause endocrine system dysfunction and affect the quality of life of patients. However, laparoscopic surgery has high technical requirements, long operation time and high cost, resulting in more patients unwilling to accept surgical treatment.[1] As a result, more and more patients with uterine fibroids are opting for non-invasive high intensity focused ultrasound treatment (HIFU). HIFU, also known as HIFU therapy, focuses the external ultrasound energy in the body and increases the temperature of the target area to make it coagulate and necrotic, thus removing the lesion, which has the advantages of being non-invasive and non-invasive.[2] Patients need to undergo strict intestinal preparation before surgery, including oral laxatives and enemas, the frequency of enemas should be liquid, clear, and residue free, so the recovery of postoperative intestinal function is particularly important for the patient's recovery. Patients undergoing intestinal preparation are prone to postoperative water

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electrolyte acid-base imbalance, and their gastrointestinal motility is also inhibited to a certain extent. Chinese Experts pointed out that intestinal injury is one of the complications of HIFU treatment,[3] which may be manifested in different degrees of gastrointestinal dysfunction, delayed recovery of gastrointestinal function, and delay of first exhaust time.[4,5] Therefore, how to alleviate patients' surgical stress and reduce the risk of gastrointestinal complications is one of the key concerns of rapid rehabilitation surgery.[6] TCM nursing has advantages in chronic disease rehabilitation and other fields that cannot be obtained. TCM believes that postoperative gastrointestinal dysfunction belongs to the categories of "bowel fullness" and "Fullness syndrome", and that "the six hollow viscera must keep its unobstructed", and the operation damages positive - qi, spleen and stomach function, and the ups and downs are abnormal, so the fu-organs are obstructed, and gastrointestinal dysfunction is induced.[7] Studies have pointed out that auricular point sticking therapy can promote the recovery of gastrointestinal function by stimulating the corresponding auricular point area of patients, dredging meridians, adjusting qi and blood.[8] Moxibustion can also stimulate local meridians through the warming effect, dredge meridians, and adjust qi and blood.[9] The National Nursing Development Plan (2021–2025) proposes to improve the routine, program and technical operation standards of TCM nursing.[10] In view of this, with traditional Chinese medicine nursing as the core, this study constructed a traditional Chinese medicine nursing scheme for gastrointestinal function recovery of patients with uterine fibroids after HIFU surgery, and evaluated its nursing effect, and achieved certain results. The report is as follows.

Clinical Data

Convenience sampling method was used to select the patients who received HIFU treatment from January 2023 to December 2023 in HIFU Treatment Center of a Grade III obstetrics and gynecology hospital in Shanghai as the study objects. Inclusion criteria: ① Patients with clinically diagnosed uterine fibroids and (or) having fertility requirements and unwilling to have hysterectomy meeting clinical indications and suitable for HIFU surgery; ② Aged 18–65 years old, without mental disorders; ③ The operation duration is within 1–3 hours; ④ Informed consent and voluntary participation in the researcher; Exclusion criteria: ① pregnant, lactating women, with mental illness and other special groups; ② Complicated with organ dysfunction or organic disease; ③ Patients with other gastrointestinal diseases or surgical history; ④ Patients with contraindications of Haifeng operation; (5) Language communication disorders, physical activity disorders; ⑥ There is a tendency to bleed, there are coagulation disorders. Sample size determination: The time of first postoperative anal exhaust was taken as the main observation index, and the data obtained by Wang[11] was referred to. The time of first anal exhaust in the two groups was (36.65±4.57) hours in the experimental group and (40.12 ± 5.00) hours in the control group. In this study, α=0.05 (bilateral) was taken, and $Z\alpha$=$Z0.05$=1.96 was obtained by referring to the table If β=0.20, then the test efficiency (1-β) = 0.8, we can see that $Z\beta$=0.84; $\mu1$ and $\mu2$ represent the mean exhaust time of the test group and control group, respectively. σ is the larger standard deviation of the two groups. The sample size estimation formula[12] $N1 = N2 = 2[\sigma(Z\alpha/2+Z\beta)/(\mu1-\mu2)]2$ for the comparison of the two-sample means was used to calculate the required sample size. Considering the 20% loss of follow-up rate, 42 cases were obtained for each group. This study finally determined the sample size of the experimental group and the control group, 60 cases each. Finally, 110 subjects were included in this study, and the patients were divided into 54 cases in the control group (6 cases lost to follow-up) and 56 cases in the experimental group (4 cases lost to follow-up) according to the random number table method. There was no statistical difference in baseline data between the two groups ($P > 0.05$), as shown in Table 1. This study was approved by the Ethics Committee of the Affiliated Obstetrics and Gynecology Hospital of Tongji University (Ethics number: KS2313) and registered in the Chinese Clinical Trial Center (clinical registration number: ChiCTR2100051656).

Methods

The control group carried out a routine nursing mode, kept in a prone position for 2 hours after surgery, placed lumbosacral cold compress after ice pack, and kept ice saline for half an hour after bladder perfusion. Observe and monitor changes in vital signs and take appropriate measures in time when abnormalities are found. After operation, the necessary analgesic measures should be taken according to the pain degree of the patient. Observe the urine, urine and vaginal secretions of the patient, and deal with any abnormalities in time; Pay attention to the psychological changes of

Table 1 Comparison of Baseline Data Between the Two Groups

Item	Control Group (*n*=54)	Experimental Group (*n*=56)	*t*/ x^2	*P*
Age (years)	36.11±8.663	39.32±9.974	−1.799	0.075
BMI (kg/m^2)	21.98±3.736	21.95±3.453	0.044	0.965
Payment method			0.112	0.738
Out-of-pocket payment	18 (33.33%)	17 (30.36%)		
Medical insurance payment	36 (66.67%)	39 (69.64%)		
Educational background			0.68	0.712
Junior high school and below	8 (14.81%)	10 (17.86%)		
High school to junior college	32 (59.26%)	35 (62.50%)		
Bachelor's degree or above	14 (25.93%)	11 (19.64%)		
Tumor type			0.552	0.759
Subserous myoma of uterus	20 (37.04%)	17 (30.36%)		
Uterine submucous myoma	12 (22.22%)	14 (25.00%)		
Intramural myoma of uterus	22 (40.74%)	25 (44.64%)		

patients, and channel the negative emotions of patients in time. On the basis of the control group, the experimental group implemented the traditional Chinese medicine nursing plan of gastrointestinal function recovery of patients with uterine fibroids after sea aid.

Establish a Multidisciplinary Team of TCM Nursing

A multidisciplinary TCM nursing team of 10 members consists of a director, a head nurse, a nursing master, 4 responsible nurses, a TCM physician, a nutritionist and a rehabilitation therapist. The director of HIFU Center served as the group leader, mainly responsible for leading the team to complete the preliminary literature search, carry out expert review and formulate the later plan; The head nurse is responsible for the arrangement, coordination and quality control of clinical intervention personnel; Responsible nurses are responsible for the implementation of intervention measures and postoperative health education; TCM doctors, nutritionists and rehabilitation therapists are responsible for the whole process of postoperative rehabilitation management; Clinical data collection and processing for nursing graduate students.

Homogenized Training and Assessment

In order to ensure the smooth development of this research project, before the nursing intervention, the Chinese medicine doctors provided homogenized training to the nursing staff participating in the study, covering the theoretical knowledge and operational skills of the Chinese medicine nursing program. After the training, the head nurse will assess the nursing staff to ensure that they have mastered the knowledge of TCM nursing. In order to continuously optimize the implementation of the program, the head nurse will discuss and analyze the problems in the training before the implementation of the intervention and analyze and discuss the problems in the implementation of the program during the monthly business learning, so as to achieve continuous quality improvement of the program.

Establishment of Traditional Chinese Medicine Nursing Plan for Gastrointestinal Function Recovery of Patients with Uterine Fibroids After HIFU Treatment

① TCM syndrome assessment: After HIFU treatment, the TCM syndrome of the patient can be determined, and the patient is identified as "spleen deficiency syndrome", and other TCM syndromes can be excluded. ② auricular point pressure and acupressure: Start to give auricular point pressure at 4h after surgery and apply pressure massage in the morning care every day, and replace one side of the ear each time. Select stomach, cortical, large intestine, small intestine, Shenmen, sympathetic and Ashi points. After disinfection of ear points, apply Wang Luxing seeds to one ear point for pressure massage, press for 3–5 minutes each time, about 60 times per minute, pay attention to control the pressure during the press process, and listen to the patient's complaint, so as not to exceed the patient's normal tolerance

range. Combine pressure massage with acupressure. The nurse pressed Zusanli, Neiguan, Tianshu, Zhongwan, Hegu and Diji points with the thumb and finger abdomen and pressed each point for 2 ~ 3 minutes respectively, taking the patient's "acid, distension and numbness" as the standard, and then gently knead for 10s; With the wrist joint as the fulcrum, the palm and finger actively apply force, and do the pressure perpendicular to the operation site. When the pressure reaches the required strength, it is necessary to stay for a moment, that is, the so-called "press and stay", and then relax the force, and then do repeated press, so that the press action is both stable and rhythmic. ③ Dietary differentiation: a liquid diet can be given 2h after surgery; 6h after surgery, the patient had no symptoms of nausea, vomiting or abdominal pain and could take semi-fluid. Patients with spleen deficiency syndrome avoid eating cold, spicy, thick and greasy food, according to the patient's personal preferences to eat spleen and qi strengthening food. ④ Emotional care: thinking about the spleen, thinking about the serious injury and temper, and then affecting the digestion and absorption of food. Timely and effective communication with patients, for patients and their families to answer questions, to create a harmonious doctor-patient environment; Actively encourage patients to maintain optimistic mood, avoid anxiety, depression and other negative emotions, to avoid excessive emotional fluctuations; You can do some calming methods, such as meditation, listening to music, etc. ⑤ Health rehabilitation: before going to bed every night, we can use traditional Chinese medicine packages such as unified configuration for warm water feet; Develop the habit of taking a nap at noon to nourish Qi and blood; Pay attention to the abdomen to keep warm, avoid cold, to the navel as the center, daily abdominal massage, each time clockwise massage 20 times, to promote the spleen and stomach transport function. Exercise health care: according to the recovery of the patient's body, it is known that the patient exercises in an appropriate way to promote the movement of the body's qi and blood, and passive exercise can be carried out in bed early after surgery. After getting out of bed, patients can be guided to perform eight sections of brocade, Taijiquan, etc., which can enhance physical fitness and improve gastrointestinal function.

Quality Control

The intervention team held weekly quality control meetings, and the team members reported on the effects of the intervention on the patients they managed. The group successfully communicated with each other about the problems in the implementation of the TCM nursing intervention plan, carried out a new round of rectification, sorted out the process again, proposed new ideas for work and started to implement them, improved and optimized the constructed TCM nursing strategy, and realized the sustainability of the nursing intervention. The subjects were selected strictly according to the criteria to avoid selection bias. To ensure the effectiveness of the measures and patient compliance, 10 patients were randomly divided into a control group and an experimental group each month. The questionnaire filling time is consistent to ensure the measurement accuracy; The control group and the study group were interfered by different interveners in different wards to avoid inter-group contamination. The collection and recording process followed the principle of double blindness between nurses and patients. All patients in this study signed informed consent forms and complied with the Helsinki Declaration.

Effect Evaluation

Postoperative Gastrointestinal Motility Recovery

According to the Chinese Expert Consensus on Perioperative gastrointestinal motility Management in Integrative Chinese and Western Medicine,[13] the recovery time of bowel sound, the time of first anal exhaust and the time of defecation are the main clinical indicators to evaluate the recovery of gastrointestinal motility. In this study, the above indexes of the two groups of patients were analyzed. The specific methods were as follows: ① intestinal ringing sound. Evaluation time: Auscultation was performed every 4 hours starting from the first day after surgery. Evaluation criteria: The occurrence of 3 or more bowel sounds in any area is considered as the recovery of bowel sounds; Evaluator: Department gynecologist. ② Time of first anal exhaust. Evaluation time: the time of the first anal exhaust after the patient returned to the ward safely after surgery; Assessment methods: Patients were interviewed by the responsible nurse during morning care on the first day after surgery. ③ Time of first defecation. Evaluation time: the time from safe return to ward to anal defecation after surgery; Assessment methods: Patients were interviewed by the responsible nurse during morning care on the first day after surgery.

Patient Comfort

The General Comfort Questionnaire (GCQ), developed by American comfort nursing expert Kolcaba,[14] was used to evaluate the postoperative comfort of patients. GCQ is a measurement tool to evaluate patients' comfort needs and intervention effects, including 28 items in four dimensions: physiological, psychological, sociocultural and environmental, including 5 items in physiological dimension, 10 items in psychological dimension, 6 items in social dimension and 7 items in environmental dimension. The Scale is scored on a 1–4 Likert Scale, where 1 means "strongly disagree" and 4 means "strongly agree". Reverse entry 1 means "strongly agree" and 4 means "strongly disagree". The total score is 112, with higher scores indicating greater comfort.

Mental Health Status

Self-rating Anxiety Scale (SAS)[15] and Self-rating Depression Scale (SDS)[15] were used to evaluate the mental health status of the patients. The self-rating was conducted according to the symptoms of the patients in the latest 1 week. The total crude score was obtained by summating 20 scores of the scale, and the standard score was = crude score ×1.25. According to the results of the Chinese norm, SAS standard was divided into 50 points, among which 50 ~ 59 points were mild anxiety, 60 ~ 69 points were moderate anxiety, and more than 70 points were severe anxiety. The SDS standard is 53 points, 53 to 62 are classified as mild depression, 63 to 72 are classified as moderate depression, and >72 are classified as severe depression.

Nursing Satisfaction

The Newcastle Nursing Service Satisfaction Scale (NSNS)[16] was used to evaluate nursing satisfaction. The scale consists of 19 items, each item of 1 to 5 points, 1 point is "very dissatisfied", 2 points is "dissatisfied", 3 points is "generally satisfied", 4 points is "satisfied", 5 points is "very satisfied". A higher score indicates higher patient satisfaction with the quality of care.

Questionnaire Collection

After obtaining the consent of the patients, the nursing graduate students will issue questionnaires to the patients who meet the criteria of sodium intake. Questionnaires were issued at admission and discharge, and patients were asked to fill in the questionnaires on the spot according to the actual situation with unified guidance and given enough time and an independent environment and recovered after checking no missing items.

Statistical Methods

SPSS26.0 software was used for data analysis. Measurement data were expressed as mean ± standard deviation (±S), and *T*-test was used for comparison among groups. The statistical data were expressed as "n (%)", $\chi 2$ test was used between the two groups, and $P < 0.05$ was considered to be statistically significant.

Results

Comparison of Postoperative Gastrointestinal Function Recovery Between the Two Groups

Bowel sound recovery time, first anal exhaust time and first defecation time of the test group were better than those of the control group, and the differences were statistically significant ($P < 0.05$). See Table 2 for details.

Comparison of GCQ Scale Scores Between the Two Groups

Before intervention, there were no significant differences in the total score of GCQ and scores of all dimensions between the two groups ($P > 0.05$). After intervention, the total score of GCQ and the scores of all dimensions in the experimental group were significantly higher than those in the control group, with statistical significance ($P < 0.05$). See Table 3 for details.

Table 2 Comparison of Postoperative Gastrointestinal Function Recovery Between the Two Groups (±S)

Group	Number of cases	Bowel sound recovery time (h)	First anal exhaust time (h)	First defecation Time (h)
Control group	54	22.61±8.05	27.09±13.56	52.36±21.43
Experimental group	56	17.88±5.34	21.16±6.21	45.42±11.17
t		3.644	3.644	2.143
P		<0.001	0.004	0.034

Table 3 Comparison of GCQ Scores Between the Two Groups Before and After Intervention (±S)

Group	Number of cases	Physiological Dimension		*t*	*P*	Psychological Dimension		*t*	*P*
		Pre-Intervention	Post-Intervention			Pre-Intervention	Post-Intervention		
Control group	54	14.57±2.63	15.54±2.26	−2.035	0.044	28.28±4.48	29.50±4.04	−1.487	0.140
Experimental group	56	14.82±3.73	17.34±1.76	−4.566	<0.001	26.80±6.39	32.11±3.77	−5.347	<0.001
t		−0.400	−4.671			1.395	−3.498		
P		0.690	0.000			0.166	0.001		
Group	**Number of cases**	**Sociocultural Dimension**		***t***	***P***	**Environmental Dimension**		***t***	***P***
		Pre-Intervention	**Post-Intervention**			**Pre-Intervention**	**Post-Intervention**		
Control group	54	16.15±3.88	16.93±2.99	−1.166	0.246	19.26±4.23	19.28±3.67	−0.026	0.979
Experimental group	56	15.70±4.34	19.09±2.99	−4.813	<0.001	18.29±5.21	22.28±3.41	−4.807	<0.001
t		0.574	−3.792			1.073	−4.454		
P		0.567	0.000			0.286	0.000		
Group	**Number of cases**	**Total GCQ score**				**t**	**P**		
		Pre-Intervention		**Post-Intervention**					
Control group	54	78.26±11.74		81.24±9.68		−1.439	0.153		
Experimental group	56	75.61±16.41		90.82±9.44		−6.013	<0.001		
t		0.972		−4.983					
P		0.333		<0.001					

Comparison of SAS and SDS Scores Between the Two Groups

Before intervention, there were no significant differences in SAS and SDS scores between the two groups ($P > 0.05$). After intervention, the scores of SAS and SDS in the experimental group were significantly lower than those in the control group, with statistical significance ($P < 0.05$). See Table 4 for details.

Comparison of NSNS Scale Scores Between the Two Groups

After intervention, the NSNS scale score of the control group was (81.32±5.49) points, and the NSNS scale score of the experimental group was (85.79±9.05) points, and the difference was statistically significant (t=−3.157, P = 0.002).

Table 4 Comparison of SAS and SDS Scores of the Two Groups Before and After Intervention (±S)

Group	Number of cases	SAS		t	P	SDS		t	P
		Pre-Intervention	Post-Intervention			Pre-Intervention	Post-Intervention		
Control group	54	50.06±5.79	47.93±7.82	1.608	0.111	52.35±9.07	49.52±7.45	1.773	0.079
Experimental group	56	49.52±5.49	43.73±4.06	6.340	<0.001	52.84±7.59	43.29±3.96	8.347	<0.001
t		0.500	3.546			−0.305	5.504		
P		0.618	<0.001			0.761	<0.001		

Discussion

Traditional Chinese Medicine Nursing Program Shortens the Recovery Time of Gastrointestinal Function in Patients with Uterine Fibroids After HIFU

The results of this study showed that the intervention program of traditional Chinese medicine nursing can effectively shorten the recovery time of gastrointestinal function in patients with uterine fibroids after HIFU. Compared with the control group, the postoperative bowel sound recovery time, first anal exhaust time and first defecation time of the experimental group were significantly shortened ($P < 0.05$), which was consistent with the research results of Huang Liuyan et al.[17] In this study, auricular acupoint pressure and acupressure were selected as the main intervention measures, supplemented by dialectical diet, emotional care and sports health care. Traditional Chinese medicine believes that the auricle and the human body are an organic whole, and the auricle corresponds to the various organs and meridians of the human body. Stimulating the auricular point can regulate the qi and blood of the zang-fu organs, promote the qi and blood movement of the meridians, and thus affect the function of the relevant zang-fu organs. In this study, auricular points were selected, including stomach, small intestine, large intestine and other points related to the digestive system. By pressing and stimulating auricular points, the release of digestive fluid and other secreted fluid can be affected so that the whole-body viscera qi mechanism can be restored to normal, and the purpose of strengthening spleen and regulating qi and promoting the recovery of gastrointestinal function can be achieved.[18] Acupoint massage can regulate the qi and blood of the zang-fu organs, improve the factors that hinder the qi and blood, make the function of each zang-fu organs run smoothly, and help to restore the meridian conduction. At the same time, acupressure can also act on the secretion of digestive fluid, promote intestinal peristalsis, regulate the weakness of the spleen and stomach, and prevent abdominal distension.[19] Zusanli point used in this study has the effects of strengthening the spleen and stomach, regulating qi and blood, and promoting intestinal peristalsis.[20] Zhongwan point can regulate the spleen and stomach and relieve flatulence.[21] Dialectical diet is an important part of traditional Chinese medicine nursing. According to the different syndrome types of patients, different dietary conditioning methods are adopted to achieve the purpose of strengthening and dispelling evil, regulating spleen and stomach, and promoting the recovery of gastrointestinal function. Emotional care is also important to promote the recovery of gastrointestinal function. Emotional disorders can affect the function of the spleen and stomach, resulting in stagnation of Qi and qi, and then affect gastrointestinal peristalsis.[22] Therefore, this study alleviates anxiety, depression and other negative emotions of patients by guiding them to catharsis and psychological relaxation, and keeps them in a comfortable mood, which is conducive to the recovery of spleen and stomach function. In addition, moderate exercise can promote the movement of qi and blood, improve digestive function, and accelerate the recovery of gastrointestinal function. In this study, traditional Chinese medicine exercises such as Baduanjin were adopted, which not only relax muscles and promote blood circulation but also regulate qi and blood, promote the secretion of digestive glands, enhance peristalsis, and contribute to the recovery of gastrointestinal function.[23]

TCM Nursing Program Can Improve the Comfort Level and Mental Health Level of Patients with Uterine Fibroids After HIFU

In this study, traditional Chinese medicine nursing intervention program can effectively improve the comfort level of patients with uterine fibroids after HIFU surgery, and significantly improve their mental health level, and the comfort level, anxiety, depression and nursing satisfaction of the experimental group after intervention are significantly better than that of the control group ($P < 0.05$). According to the theory of traditional Chinese medicine, the spleen and stomach are acquired and the source of qi and blood biochemistry, and emotional disorders can affect the function of the spleen and stomach, leading to stagnation of Qi and gastrointestinal peristalsis. Therefore, this study established a traditional Chinese medicine nursing scheme for gastrointestinal function recovery of patients with uterine fibroids after sea support treatment. Through dialectical treatment, comprehensive application of emotional care, auricular point pressure, acupoint massage, sports health care and other measures, the overall adjustment of patients' qi and blood movement and the improvement of spleen and stomach function can improve the comfort level and mental health of patients.[24] Traditional Chinese medicine believes that "spleen governs thinking", excessive thinking and poor mood will lead to stagnation of Qi and affect the function of the spleen and stomach.[25] In this study, through "emotional care", patients were taught relaxation skills, and patients were helped to correctly understand their emotions and take effective relief measures. In addition, encouraging patients to interact with medical staff and family members to obtain emotional support and understanding can help patients relieve anxiety and depression, improve sleep quality, and improve mental health. Modern medical research has confirmed that psychological factors can affect gastrointestinal function through the brain-gut axis, "microbial-gut-brain" axis and the HPA axis.[24] Emotional nursing can improve the psychological state of patients, then adjust the brain-intestinal axis, improve the gastrointestinal function, and enhance the comfort level and mental health level of patients. In addition, auricular point pressure and acupressure can regulate the operation of Qi and blood by stimulating relevant points, relieve local muscle tension, reduce postoperative pain and discomfort, and improve patient comfort. At the same time, auricular point pressure and acupressure can regulate the nervous system, improve the patient's mood and comfort, and then improve the patient's mental health level. On the other hand, traditional Chinese medicine holds that "Tai Chi generates Yang by moving, and Yin by quietness." Yang moves and changes, Yin is quiet and closes. It shows the importance of exercise on Yang qi development,[26] moderate exercise can promote the movement of qi and blood, improve digestive function, and accelerate the recovery of gastrointestinal function. In this study, Baduanjin, Taijiquan and other traditional Chinese medicine exercise methods were used to combine form, qi and spirit through regulating qi mechanism, so as to promote the generation of Yang qi, which can improve the quality of sleep at night, relieve anxiety and depression, improve the comfort of patients, and obtain patients' satisfaction with nursing services.

Summary

Compared to standard medication treatment, traditional Chinese medicine nursing programs emphasize overall and personalized care plans, considering the overall health, lifestyle, and emotional state of patients with uterine fibroids after HIFU surgery. Based on the principles of yin and yang, the five elements, and the meridian system, they help these patients better understand their own health status while also reducing their physical and mental pain and economic burden.

In our study, the constructed traditional Chinese medicine nursing scheme was applied to patients with uterine fibroids after HIFU surgery, which could promote the early recovery of gastrointestinal function, improve the comfort level of patients, alleviate patients' negative emotions and improve nursing satisfaction. However, only one hospital was selected for the investigation in this study, and the study time was short, so it is necessary to further collaborate with multiple centers to verify the reliability of the research results. In the future, grouping studies can be conducted for patients with different syndrome types to further explore the differences in TCM nursing programs for patients with different syndrome types, so as to improve the overall rehabilitation effect of patients.

Ethical/Copyright Corrections

This study complies with the Helsinki Declaration. This study can share the data of all participants in the study, including general information and evaluation of the effects before and after intervention, and submit it to the Chinese Clinical Trial Center within 60 days after the completion of the experiment (https://www.chictr.org.cn) Public. Sharing raw data requires the consent of the researcher. The validity period of data sharing is within 5 years after the completion of the experiment.

Ethics Statement

The clinical trial registration institution and the ethical review institution are Shanghai First Maternal and Infant Health Hospital. However, last year, our hospital changed its name to the Affiliated Obstetrics and Gynecology Hospital of Tongji University, and Shanghai First Maternal and Infant Health Hospital is still the second title of our hospital. In addition, since 2022, our hospital has standardized the signature of SCI papers and unified it as "Shanghai Key Laboratory of Maternal Fetal Medicine, Shanghai Institute of Maternal-Fetal Medicine and Gynecologic Oncology, Shanghai First Maternity and Infant Hospital, School of Medicine, Tongji University, Shanghai 200092, People's Republic of China".

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Disclosure

The authors declare that they have no competing interests.

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