RESEARCH ARTICLE

Comparison of routine nursing with specialised nursing in patients undergoing ultrasound-guided interventional therapy of benign ovarian cyst

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Abstract

Objective: To compare the result of routine nursing with specialised nursing in patients undergoing ultrasound-guided interventional therapy for benign ovarian cyst.

Method: The study was conducted at the Wuhan Sixth Hospital, Wuhan, China, from June 2021 to June 2023, and comprised female patients having benign ovarian cysts who underwent ultrasound-guided interventional therapy. The patients were randomised into control group CG receiving routine nursing care, and study group SG receiving specialised nursing. The groups were compared with respect to outcome measures, including first time out of bed, length of hospital stay, degree of pain, anxiety and depression, complications, quality of life and nursing satisfaction. Data was analysed using SPSS 20.

Results: Of the 100 female patients, 50(50%) were in group CG with mean age 38.17±4.21 years, and 50(50%) were in group SG with mean age 38.21±4.25 years. Compared to the controls, those in group SG had shorter first time out of bed hours and length of hospital stay, lower pain scores at 24h and 48h post-therapy, lower anxiety and depression scores, lower incidence of complications, higher quality of life, and higher nursing satisfaction ($p<0.05$).

Conclusion: Specialised nursing could accelerate postoperative recovery, relieve pain, decrease the incidence of complications, relieve negative emotions, promote quality of life, and promoted nursing satisfaction of patients having benign ovarian cyst who underwent ultrasound-guided interventional therapy.

Keywords: Benign ovarian cyst, Ultrasound, Interventional therapy, High-quality nursing, Pain.

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Introduction

Ovarian cyst is a common disease among women of childbearing age.[1] Although it is a benign tumour of the ovary, patients often have clinical symptoms, such as menstrual disorders, lumbosacral pain and lower abdominal distension.[2] In severe cases, it can cause pedicle torsion, rupture, secondary infection and even malignant transformation, affecting women's quality of life (QOL).[3] In the past, surgical treatment was often used in clinic, but the surgery was traumatic, and the recovery time was long, which had certain limitations.[4] Recently, with the rapid development of minimally invasive therapy (MIT) technology, ultrasound-guided interventional therapy has shown good application effect in the treatment, with little trauma and a short recovery time, and it has been widely used in clinical practice.[5] However, the patient's body is relatively fragile after surgery, and the pain is obvious.[6] As a result, it is necessary to plan effective nursing interventions for patients with ovarian cyst surgery to improve the condition of patients and enhance the therapeutic effect.

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Although routine nursing intervention can improve patients' condition, it neglects the psychological nursing of patients, and that affects prognosis.[7] As a new nursing model, specialised nursing has the features of integrity, innovation and individuation, which can provide patients with more efficient, convenient and comfortable nursing services, build a good nurse-patient relationship, and also has an important role in improving medical quality.[8] For example, specialised nursing relieved depression and anxiety in thyroid cancer patients during perioperative period[9] and could improve QOL of lung cancer patients.[10] However, the effect of specialised nursing on ultrasound-guided interventional therapy of benign ovarian cyst remains unclear.

The current study was planned to compare the effect of conventional and specialised nursing on patients undergoing ultrasound-guided interventional therapy for benign ovarian cyst.

Patients and Methods

The study was conducted at the Wuhan Sixth Hospital, Wuhan, China, from June 2021 to June 2023, and comprised female patients having benign ovarian cysts who underwent ultrasound-guided interventional therapy. The patients were randomised using the random number table method[11] into control group CG and study group SG.

Those included were patients who met the diagnostic criteria of ovarian cyst confirmed by imaging examination.[12] Those excluded were patients with history of pelvic surgery, Liver, kidney and other organ dysfunction, and women who are pregnant or breastfeeding. This study was approved by the Ethics Committee of Wuhan Sixth Hospital, and all patients signed informed consent forms.

The CG group received routine nursing, comprising medication according to the doctor's advice, diet nursing, psychological nursing, health education, reasonable preoperative preparation, postoperative medication guidance, and life guidance.

In addition, the SG subjects received specialised nursing. Preoperatively, the nurses visited the patients to understand the relevant condition of the patients. The nurses patiently communicated with patients, gave health education, and informed them about how to go to the operating room (OR) and what they should focus on after entering the OR.

Intraoperatively, the nurses played slow, comfortable music, paid attention to the patient's emotional changes, even through communication, to divert the patient's attention and stabilise the patient's emotions. After the wound suture, the blood and stains on the skin were cleaned with disinfected iodine. After the patient recovered from anaesthesia, the nurses informed the patient of the operation result in time, and exchanged relevant information.

Postoperatively, once the patient's condition was stable, the patient was returned to the ward. The nurses paid attention to protecting the privacy of the patient during the escort process, paid attention to safety, avoided collision, and did all this with due warmth. The patient's family members were informed as soon as possible, and relevant precautions were advised, responsibility probe and care were carried out, the psychological state of the patient was observed during psychological assessment, and adequate positive hints were given during pain care.

The nurses told the patients to take high-protein, vitamin-rich food as well as supplemented dietary fibre, ensured adequate water intake, and frequently changed the perineal pad to prevent infection.

The nurses guided the patients about paying attention to the department's WeChat public account, which regularly spreads health knowledge regarding ovarian cyst, so that the patients could learn after discharge. If the patients had adverse reactions after discharge, they could communicate through WeChat and decide whether they needed to be admitted for examination through the initial assessment of medical staff, so as to provide convenience to the patients.

Outcome indicators for both the groups included the first time out of bed time in hours, and length of hospital stay (LOS). The visual analogue scale (VAS) was used for evaluating patients' pain in the early postoperative period at 24h and 48h post-surgery[13] on a 0-10 scale, with higher score representing more severe degree of pain.

The 14-item Hamilton anxiety scale (HAM-A) and the 17-item Hamilton depression scale (HAM-D) were used for evaluating anxiety and depression, respectively.[14] Each item was scored 0-4 points. The score was proportional to the severity of bad mood.

The occurrence of complications, including fever, nausea and vomiting, bleeding and infection, were recorded for both the groups.

The Maternal Outcome Study (MOS) 36-item short form (SF-36) questionnaire was used for evaluating patients' QOL,[15] including physiological function, mental health, emotional function, physical pain, role physical, vitality, social function and general health, with a score of 100 for each item. Higher scores represented better QOL.

A self-designed questionnaire was used to evaluate patients' nursing satisfaction, with score 65-80 = basically satisfied, >80=very satisfied, and <65=dissatisfied. Total satisfaction rate was the sum of very satisfied and basically satisfied cases dived by the total number of cases and multiplied by 100.

Data was analysed using SPSS 20. Measurement data was expressed as mean ± standard deviation, and t-test was used for comparison. Statistical data was exhibited as frequencies and percentages, and chi-square test was used for comparison. $P<0.05$ was considered statistically significant.

Results

Of the 100 female patients, 50(50%) were in group CG with mean age 38.17±4.21 years, and 50(50%) were in group SG with mean age 38.21±4.25 years (Table 1).

Table-1: Baseline characteristics of the patients.

Items	Control group (n=50)	Study group (n=50)	*t*-test/x^2	p-value
Mean Age (years)	38.17±4.21	38.21±4.25	0.047	0.962
Mean Duration of the disease (months)	12.05±1.33	12.12±1.35	0.261	0.794
Mean Maximum diameter of cysts (cm)	5.03±1.04	5.05±1.06	0.033	0.973
Types of ovarian cysts				
Unilateral cysts	30	29	0.041	0.838
Bilateral cysts	20	21		

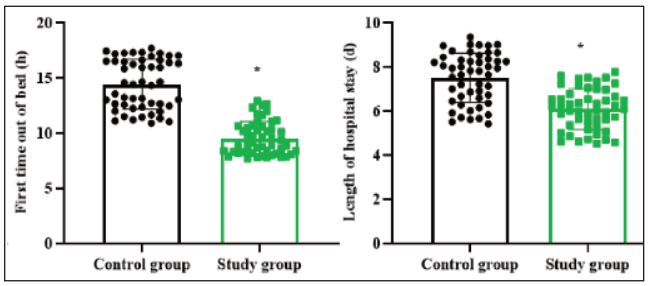

Figure-1: First time out of bed (hours) and length of hospital stay (days). **p<0.05.*

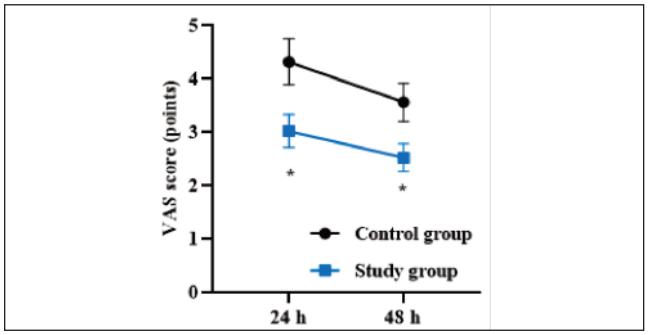

Figure-2: Degree of pain in the groups. **a<0.05. VAS: Visual analogue scale.*

Table-2: The incidence of complications.

Groups	Cases	Fever	Nausea and vomiting	Bleeding	Infection	Total incidence rate
Control	50	3	3	2	1	9 (18.00%)
Study	50	1	1	0	0	1 (2.00%)
x^2						7.111
***p*-vlaue**						0.008

Table-3: Intergroup comparison of satisfaction with nursing.

Groups	Cases	Very satisfied	Satisfied	Dissatisfied	Total satisfaction rate
Control group	50	23	19	8	42 (84.00%)
Study group	50	26	23	1	49 (98.00%)
x^2					5.983
***p*-value**					0.014

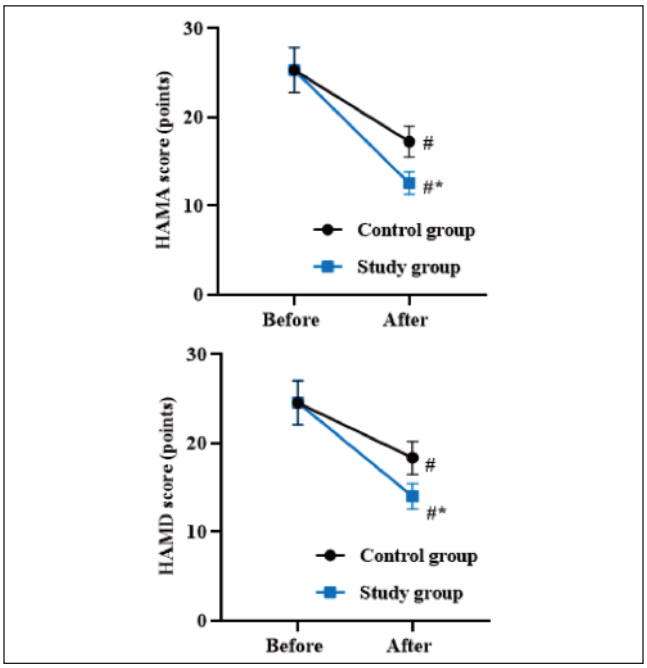

Figure-3: Anxiety and depression scores in the groups. *#p<0.05 compared to basline, *p<0.05 compared to controls. HAM-A: Hamilton anxiety scale, HAM-D: Hamilton depression scale.*

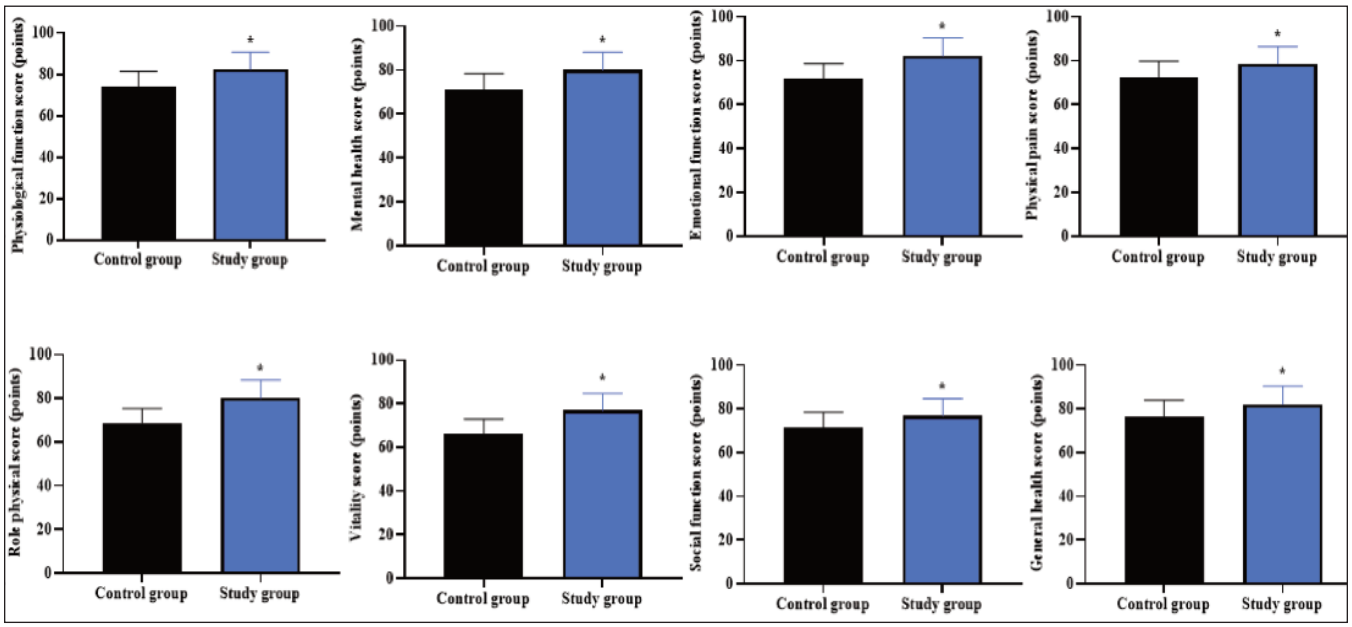

Figure-4: Intergroup comparison of quality of life (QOL) in the groups. *#p<0.05 compared to basline, *p<0.05.*

Compared to CG patients, those in SG had shorter first time out of bed hours and LOS (Figure 1), as well as lower pain scores at 24h and 48h post-therapy (Figure 2).

Anxiety and depression in the groups were not significantly different at baseline ($p>0.05$). Post-intervention, HAM-A and HAM-D scores declined in both the groups, but the decline was significantly more in SG compared to CG ($p<0.05$) (Figure 3).

Also, compared to CF patients, SG patients had lower incidence of complications (Table 2), higher QOL (Figure 4), and higher level of satisfaction with nursing (Table 3).

Discussion

Clinical routine nursing for ovarian cyst patients with ultrasound-guided interventional therapy can promote their rehabilitation to a certain extent, but the intervention content mode is too simple to meet the requirements of the patients, and that affects the rehabilitation process.[16] Specialised nursing is an individualised, innovative and holistic nursing model that can increase the comfort and convenience of the patients, enhance the improvement of curative effect, and further promote the level of hospital nursing.[17] Specialised nursing requires nurses to develop personalised care for patients, and to provide patients with more detailed and comprehensive holistic care that may improve patient satisfaction, improve compliance, and achieve the ideal clinical treatment effect.[9] Specialised nursing is based on the perspective of psychological and physiological nursing, and, standing in the patients' shoes, tries to think about factors that not only improve patients' self-confidence about the treatment, and their satisfaction.[18]

In the current study, the results indicated that in contrast to the CG patients, those in SG had shorter first time out of bed time along with LOS, lower VAS score at 24h and 48h post-therapy, and lower incidence of complications, suggesting that specialised nursing could promote postoperative recovery, reduce pain, and decrease the incidence of complications in benign ovarian cyst patients undergoing ultrasound-guided interventional therapy. The findings were in line with earlier studies indicating that specialised nursing can significantly shorten LOS of advanced non-small cell lung cancer patients.[19] Fang et al. suggested that specialised nursing can reduce the pain of glioma patients.[20]

Besides, the current study indicated that after nursing, relative to the CG, the SG had lower HAM-A and HAM-D scores, higher SF-36 score, and higher nursing satisfaction rate, implying that specialised nursing could relieve negative emotions, promote QOL, and elevate the level of satisfaction with nursing among benign ovarian cyst patients undergoing ultrasound-guided interventional therapy. The findings were in line with an earlier study on acute leukaemia patients undergoing chemotherapy.[21]

The current study has limitations as the sample size was not calculated which could have affected the power of the study and the generalisability of the findings.

Conclusion

Specialised nursing could accelerate postoperative recovery, relieve pain, decrease the incidence of complications, relieve negative emotions, promote QOl and promote nursing satisfaction among benign ovarian cyst patients undergoing ultrasound-guided interventional therapy.

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Conflict of Interest: None.

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