

Application of Humanized Nursing in Uterine Artery Embolization for Patients of Uterine Fibroids

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Abstract: Background: Uterine artery embolization (UAE) has been widely used to treat uterine fibroids in recent years, which is less invasive and preserving the patient's uterus. Anyway, the patient could still have negative emotions in the perioperative period because of pain, vaginal bleeding, psychological stress, or other factors. High-quality humanized nursing is needed to improve patients' situations. Object: To analyze the application and effect of humanized nursing in UAE for patients of uterine fibroids. Method: 90 patients with uterine fibroids admitted to our hospital from November 2019 to November 2020 were selected and divided into two groups according to a random drawing. The patients in the control group were given traditional nursing care. The patients in the observation group were given humanized nursing mode on this basis. The anxiety and depression degree before being discharged from hospital, satisfaction with different nursing modes, QOL score, amenorrhea, anemia, infection, arterial thrombosis, and other adverse conditions of the two groups were investigated. Result: The QOLS of the observation group after nursing were significantly higher than those of the control group, and the differences were statistically significant ($P < 0.05$). The score of HAMA and HAMD of the observation group was significantly higher than that of the control group, and the differences were statistically significant ($P < 0.05$). The satisfaction of the observation group was significantly higher than that of the control group, and the differences were statistically significant ($P < 0.05$). The rate of adverse complications of the observation group was significantly lower than that of the control group, and the differences were statistically significant ($P < 0.05$). Conclusion: The application of a humanized nursing model for the care of patients with UAE for uterine fibroids can effectively alleviate and eliminate negative perioperative emotions and significantly improve depression, which in turn is conducive to improving their postoperative quality of life, with high patient satisfaction and fewer cases of adverse reactions, with a high degree of safety, and is worth promoting in the clinic.

Keywords: Humanized Care, Uterine Fibroids, Uterine Leiomyoma, Uterine Artery Embolization, Quality of Life Score

1. Introduction

Uterine fibroids are kinds of common gynecological disease, which is a benign tumor that primarily affects women of childbearing age. The main symptoms of uterine fibroids are excessive menstruation, prolonged menstruation, pelvic pain, and compression pain of neighboring organs, which could affect the quality of daily life and work if not treated promptly [1]. At present, clinical treatment methods include myomectomy, drug therapy, and other methods [2]. Among them, uterine artery embolization (UAE) has the advantages of less trauma, quick recovery, simple operation,

and high uterine retention rate, which is recognized by most patients and has been more and more widely clinical applied [3, 4]. Humanized nursing is a modern patient-centered nursing model. It is an effective, holistic, individual, and creative nursing model that gradually replaces the traditional disease-centered nursing model in clinical nursing. Studies concluded that high-quality humanized nursing could reduce the incidence of complications and improve patient satisfaction. Our department achieved great results and gain a proven experience in humanized care of patients with UAE in the perioperative period. Now the summary report is as follows.

2. Materials and Methods

2.1. General Information

The subjects were patients who were treated with UAE in our gynecology department from November 2019 to November 2020. Inclusive criteria: (1) Not taking any anti-anxiety drugs; mentally normal with good expressive ability; (2) hospitalization time > 2 days. Exclusive criteria: patients with serious chronic diseases such as diabetes, hypertension. Among the 90 selected patients aged 36~83 (51.3 ± 2.4) years, 36 cases were intramural fibroids, 24 cases were submucosal fibroids, and 26 cases were subserosal fibroids. Then the selected patients were divided into two groups according to a random drawing. In the control group, 45 patients were aged 36~79 (50.4 ± 1.9) years, 17 cases were intramural fibroids, 12 cases were submucosal fibroids, and 14 cases were subserosal fibroids. the diameter of fibroids was 2.1~6.1 (4.0 ± 1.2) cm. In the observation group, 45 patients were aged 38~83 (53.2 ± 3.3) years, 17 cases were intramural fibroids, 12 cases were submucosal fibroids, and 14 cases were subserosal fibroids; the diameter of fibroids was 2.2~5.9 (3.8 ± 1.1) cm. The general data of the two groups were comparable ($P > 0.05$). This study was approved by the ethics committee and all patients who participated in the study were informed and consented.

2.2. Methods

2.2.1. Control Group

Patients were treated with traditional care. The patient's condition is assessed by professional physicians, and the patient's basic physiological indicators were monitored by nurses. Besides, the patents were regularly organized to conduct simple pain knowledge education [5].

2.2.2. Observation Group

Based on traditional care, patients were taking more humanized care measures. (1) Create a suitable medical environment according to different patients, keep the ward quiet and well ventilated, and adjust an appropriate temperature at a different time of the day. (2) As most patients with uterine fibroids felt anxiety and depression because of the treatment effects on their physiological functions, nurses should be patient in psychological counseling. Explain in detail to patients the impact of negative emotions on the body, such as lowering immunity and a poorer prognosis, to ensure that patients could re-perceive negative emotions and consciously adjust their emotions [6]. Besides, assess the psychological status regularly, focused on the psychological care, and explains reasonable methods of emotional catharsis. (3) Posters related to the knowledge of uterine fibroids and profiles of the gynecology department team were hung in the corridors of the ward to eliminate the tension of patients. Also, brochures about knowledge of uterine fibroids and UAE with easy-to-understand pictures and text were printed for patients. (4) A workflow was set up to ensure professionalization in all aspects of nursing. The patients were educated to improve the compliance of taking medication. The drug delivery

procedures were developed, and the infusion rate was adjusted according to the nature of the drugs used. The adverse reactions of the patients after taking the drugs were closely observed and the recovery status of the patients was also fed back to the professional physicians to adjust the drugs or dosage according to the patients' condition in time to ensure the therapeutic effect. (5) The patient was instructed to avoid hip flexion and knee flexion for 6 hours and to get out of bed as soon as possible after 24 hours. The patient was instructed on the importance of maintaining posture to alleviate discomfort, especially when discomfort occurred. (6) The patient might experience a feeling of cramping and bulging in the lower abdomen and lumbosacral area. This is because the uterine artery is blocked and the blood supply to the fibroids is stopped, which is caused by necrosis of the fibroids. Before the UAE treatment, the patient would be informed that pain might occur due to vascular embolism so that the patient could adapt to it in advance. Because each person has a different sensitivity, and their pain levels are also different. Nursing staff should observe the location and nature of the patient's pain in time, record the time, and help the physician handle it. The patient was also instructed in postoperative pain management skills, including how to breathe, assess the pain, and distract [7]. (7) Some patients may experience a small amount of vaginal bleeding or discharging dark red lumps, which should be told that this is normal during the post-operative period and that no special treatment is required. If the fibroids were found to be discharged out of the vagina, perineal care should be performed 2-3 times a day. If the fibroids were not completely discharged, the necrotic tissue out of the vagina can be removed after adequate disinfection of the vulva. Nurses should also instruct patients on how to perform perineal care.

2.3. Observation Index

After different modes of care intervention, anxiety, depression, satisfaction with care, quality of life, and adverse effects such as menorrhea, anemia, infection, and arterial thrombosis were compared between the two groups. (1) The quality of life was evaluated by the Quality of Life Scale (QOLS). The scale includes 6 major areas: religious beliefs, living environment, social relations, independent ability, mental status, and physical function. Each area is scored separately using a 5-level scoring method, which is <60 points, 60-69 points respectively, 70-79 points, 80-89 points, 90-100 points. The higher score means the better the quality of life. (2) The anxiety and depression degree was evaluated before being discharged from the hospital. Anxiety was evaluated by the Hamilton Anxiety Scale (HAMA), and depression was evaluated by the Hamilton Depression Scale (HAMD), the higher the score, the more serious it is. (3) Patients who were to be discharged from the hospital were given a questionnaire to conduct a nursing satisfaction survey, which was based on the evaluation of pain management, nursing quality, physicians' treatment, and other aspects, with a total score of 100. A higher score means better satisfaction. (4) The cases of menorrhea, anemia, infection, arterial thrombosis, and other

adverse conditions were investigated.

2.4. Statistical Methods

SPSS 21.0 software was used for statistical analysis. Measurement data were expressed as mean \pm standard deviation ($\bar{x} \pm s$), and comparison between groups was performed by *t*-test. Statistical data were expressed in terms of frequency and percentage (%) when the chi-square test was used. The difference was statistically significant with $P < 0.05$.

3. Results

3.1. Comparison of QOLS Between Two Groups

The scores of religious beliefs, living environment, social relations, independent ability, mental status, and physical function of the observation group after nursing were significantly higher than those of the control group, and the differences were statistically significant ($P < 0.05$).

Table 1. Comparison of QOLS between two groups ($\bar{x} \pm s$).

Group	n	Religious Beliefs	Living Environment	Social Relations	Independent Ability	Mental Status	Physical Function
Control Group	45	34.51 \pm 5.57	45.98 \pm 12.40	55.02 \pm 12.82	47.78 \pm 10.95	46.91 \pm 13.21	41.42 \pm 10.50
Observation Group	45	38.41 \pm 11.26	51.80 \pm 11.28	60.22 \pm 12.82	57.02 \pm 13.25	55.84 \pm 13.85	51.62 \pm 12.87
<i>t</i>		2.088	2.330	1.882	3.607	3.132	4.118
<i>P</i>		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

3.2. Comparison of HAMD Score and Satisfaction

The score of HAMA and HAMD of the observation group was significantly higher than that of the control group, and the differences were statistically significant ($P < 0.05$). The

satisfaction of the observation group was significantly higher than that of the control group, and the differences were statistically significant ($P < 0.05$).

Table 2. Comparison of HAMA score, HAMD score, and satisfaction ($\bar{x} \pm s$).

Group	n	HAMA Score	HAMD Score	Satisfaction
Control Group	45	11.16 \pm 4.17	11.91 \pm 4.33	84.60 \pm 6.80
Observation Group	45	7.56 \pm 2.83	8.78 \pm 3.05	91.80 \pm 4.95
<i>t</i>		4.787	3.967	5.742
<i>P</i>		< 0.05	< 0.05	< 0.05

3.3. Comparison of Rate of Adverse Complications

The rate of adverse complications of the observation group was significantly lower than that of the control group, and the differences were statistically significant ($P < 0.05$).

Table 3. Comparison of rate of adverse complications (cases/%).

Group	n	Amenorrhea	Anemia	Infection	Arterial Thrombosis	Total
Control Group	45	3 (6.6)	4 (8.8)	3 (6.6)	2 (4.4)	12 (26.7)
Observation Group	45	0	1 (2.2)	1 (2.2)	0	2 (4.4)
χ^2						8.459
<i>P</i>						< 0.05

4. Discussion

With the advancement of with advances in interventional radiology techniques, UAE has been widely used to treat uterine fibroids by injecting permanent embolic pellets to block the blood flow to the uterine fibroids' nutritive arteries, causing them to become ischemic and shrink [8]. Although UAE has the advantages of being less invasive and preserving the patient's uterus [9], factors such as pain, vaginal bleeding, and psychological stress caused by embolization can cause some stimulation to the body, and most patients have negative emotions in the perioperative period [10]. In this study, to achieve a humanized care model, a detailed nursing plan was developed based on the general information of the patients and the results of the analysis of their conditions. Patient

communication with the patients and their families could ensure that the nursing plan was effectively implemented [11]. Most patients were initially unacceptable to their condition and feared that the UAE treatment would have an impact on their reproductive function, resulting in anxious psychological emotions and mood swings that adversely affect recovery [12, 13]. In response to this, psychological care should be provided to patients to understand the psychological changes. The psychological problems should be promptly guided and mediated to improve negative emotions so that patients have a concrete understanding of uterine fibroids and increase their confidence in overcoming the disease. In terms of complications care, nursing staff are required to prevent complications such as pain, nausea and vomiting, infection, irregular vaginal bleeding, and arterial thrombosis, and implement symptomatic treatment in time to prevent the

deterioration of the condition due to complications and delay the recovery time of the patient [14, 15]. Compared with traditional nursing care, humanized care has the characteristics of "comprehensiveness, systematization and scientificity", which can ensure that patients' physiological and psychological needs can be met and provide patients with better nursing services.

5. Conclusion

In conclusion, Humanized nursing is a nursing model that shifts from a biological model to a biological-social-psychological model. Humanized nursing not only focuses on solving patients' disease pain and physical needs but also pays attention to other aspects of patients' psychology. It not only satisfies the needs of treating disease but also satisfies the needs of human dignity. The nurse needs to conduct a comprehensive nursing assessment of the patient and based on the evaluation and diagnosis results, formulate nursing plans from all aspects that are conducive to the rehabilitation of patients, including psychological counseling in psychological care and other aspects. These inevitably require nurses to have a wide range of knowledge, including psychology, ethics, humanities, and other diverse knowledge, to better master the art of communication. The application of a humanized nursing model for the care of patients with UAE for uterine fibroids can effectively alleviate and eliminate negative perioperative emotions and significantly improve depression, which in turn is conducive to improving their postoperative quality of life, with high patient satisfaction and fewer cases of adverse reactions, with a high degree of safety, and is worth promoting in the clinic.

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