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Surgical Nursing Care of a Patient with Cervical Cancer Undergoing Abdominal Extensive Total Hysterectomy

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Abstract: To summarize the nursing experience of a young female patient with cervical cancer who underwent abdominal extensive total hysterectomy in our hospital. Cervical cancer is one of the most common malignant tumors in gynecology. Abdominal extensive total hysterectomy is the standard treatment for early cervical cancer. The operation has the characteristics of long time, many surgical instruments and complicated nursing process. According to this case, the patient is a young female and has the characteristics of emaciated body and so on. In addition to paying attention to patients' body temperature, skin protection, infection prevention and pipeline protection, we also need to pay special attention to the psychological status of patients and the prevention of tumor implantation and metastasis. In this case, the operation time was 5.5 hours, and the body temperature was maintained well during the operation. Besides, there was no skin injury at the end of the operation, and the pipeline was protected properly. During the postoperative return visit, the patient was able to get out of bed, and the limb movement was normal. There was no postural nerve injury. There was no incision infection. The surgical nursing process of this case is reported as follows.

Keywords: Cervical Cancer, Extensive Total Hysterectomy, Intraoperative Nursing

1. Introduction

Cervical cancer is the fourth most common cancer in women [1], and it is one of the most common malignant tumors in gynecology [2]. The infection of Human papillomavirus (HPV) is the most important risk factor for the occurrence of the disease [3]. In 2018, there were about 570000 new cases and 310000 deaths of cervical cancer worldwide [4]. In China, there are about 140000 new cases of cervical cancer and 37000 deaths every year [5]. In the latest global cancer burden data released by the International Agency for Cancer Research of the World Health Organization in December 2020, the global incidence of cervical cancer is the seventh and the mortality rate is ninth [6]. At present, the treatment of cervical cancer mainly includes surgery and radiotherapy. Chemotherapy is widely used in combination with surgery, radiotherapy and the treatment of advanced recurrent cervical cancer [7]. In principle, surgery is the main treatment for early cervical cancer, radiotherapy is the main treatment for advanced cervical cancer, and chemotherapy is the auxiliary treatment. Extensive abdominal total hysterectomy is the standard treatment for early cervical cancer [8].

In order to avoid ureteral injury, abdominal extensive total hysterectomy is usually combined with urology to perform retrograde ureteral intubation under ureteroscope before the beginning of gynecological surgery. This is a multidisciplinary operation, and the surgical position needs to be changed during the operation. Therefore, the operation has the characteristics of long operation time, many surgical instruments, complex nursing process and so on. Inexperienced operating room nurses will have a lot of difficulties in the process of nursing cooperation. This case is the youngest case of cervical cancer cared for by the author. The patient was emaciated and nervous. In the process of surgical nursing, the author has profound experience in patients' skin protection, prevention of tumor cell implantation and metastasis, personalized humanistic care and so on. Through the retrospective analysis of this case, the nursing problems during the operation and the corresponding treatment measures were summarized. This deepens the author's impression and lays a foundation for

nursing similar patients in the future. At the same time, it can also provide reference for new nurses, advanced nurses and other personnel who are not familiar with surgical cooperation.

2. Case Profile

2.1. General Information of Patients

Name: Zheng xx. Gender: female. Age: 28 years old. Nationality: Han nationality.

Marital status: married. Occupation: enterprise employee. The payment method for this hospitalization is: employee medical insurance + commercial insurance.

Place of birth: Zhuhai City, Guangdong Province Current address: Zhuhai City, Guangdong Province.

2.2. Admission Chief Complaint

Cervical squamous cell carcinoma was found for more than half a year.

2.3. Present Medical History

The patient was hospitalized in another hospital for more than half a year because of progressive dysmenorrhea in March this year. B-mode ultrasound suggests that the echo in the uterine cavity is slightly stronger: endometrial polyps? Cervical cancer screening: abnormal cells of HPV16+ and TCT. Further colposcopy and pathological examination showed high-grade cervical squamous intraepithelial lesion (CIN2) and involved glands. He was admitted to the external hospital in May and underwent hysteroscopic electroresection of endometrial polyps plus circumferential cervicectomy. Postoperative pathology showed superficial invasive squamous cell carcinoma of the cervix at 11:00 and was discharged without special treatment. Pathology of cervical biopsy in our hospital in November 2021: 1. (cervical 1: 00, 3: 00) severe atypical hyperplasia of cervical squamous epithelial cells, local suspected malignant transformation. 2. (cervical 7:00) squamous epithelial cell hyperplasia with condyloma-like degeneration. 3. (cervical 11:00) squamous metaplasia of cervical glandular epithelium. The patient came to our hospital for further diagnosis and treatment. The outpatient clinic was admitted as "cervical malignant tumor". Since the onset of the disease, the patient's spirit and sleep are all right. No self-conscious vaginal bleeding and other discomfort. The patient surrendered blood asexually, defecated normally and had no significant change in body weight.

2.4. Past History

The patient is in good health at ordinary times. Denying hypertension, coronary heart disease, diabetes and other medical history. Denying the history of infection. Hysteroscopic electroresection of endometrial polyps and circumferential cervicectomy was performed in the outer hospital in May 2021. Denying other history of trauma, blood transfusion, drug and food allergy. Hepatitis B vaccine has been vaccinated, and the history of other vaccination is unknown.

2.5. Personal History, Marriage and Childbearing History

The patient has lived and worked in Guangzhou since childhood. The patient had no bad habit of smoking and alcohol, no history of exposure to chemicals and irritant gas, and no history of travel. The age of menarche was 14 years old, the menstrual days were 4 days/month, and the cycle was 30 days. Regular menstruation and moderate menstruation. The patient has dysmenorrhea in the past six months, and dysmenorrhea is progressively aggravated.

Pregnancy 3 gave birth to 1. There was a medical abortion in 2013. There was one smooth birth in 2016. There was one induced abortion in 2018. The current spouse and children are in good health.

2.6. Family History

Parents and siblings are in good health, and the family has no history of hereditary diseases and infectious diseases.

2.7. Diagnosis of Patients

Cervical malignant tumor.

2.8. Condition and Management of Patients on Admission

The patient was admitted to hospital on December 15, 2021, accompanied by her husband. On admission, the patients were generally in good condition, normal vital signs and low spirits. After admission, gynecologic B-ultrasound, pelvic and abdominal MR, chest CT, ECG, blood sampling and other examinations were performed. After discussing the medical records, the doctor plans to perform "ureteroscopic bilateral ureteral intubation plus abdominal extensive hysterectomy" under general anesthesia on December 17.

3. Introduction of the Whole Process of Surgical Nursing of Patients

3.1. The Brief Introduction of the Operation Process

The patient entered the operating room at 8: 00 on December 17 and was placed in a lithotomy position after intubation under general anesthesia. Urologists perform retrograde catheterization of bilateral ureters and indwelling catheters under ureteroscope. After that, the patient was changed to supine position and underwent abdominal extensive total hysterectomy. A total of 8 pathological specimens were produced during the operation. At the end of the operation, one pelvic drainage tube and one subcutaneous drainage tube were retained. The operation time was about 6 hours, intraoperative infusion 1700ml, blood transfusion (type O red blood cell 2u, fresh frozen plasma 200ml). During the whole operation, the bleeding was about 500ml and the urine volume was 200ml.

3.2. Nursing Evaluation

3.2.1. Physiological Evaluation

1) Physical condition: a. Body type: thin, weight 51kg, height 165cm, BMI:18.7kg/m^2. b. General function: the patient's sensory function is normal. Mild myopia, usually do not wear glasses, eyes can be closed normally. Heart rate, breathing are normal. Defecation and urination are normal. c. Skin: the patient's skin is intact and undamaged, and the overall skin is dry. No jewelry, no personal belongings.
2) Dietary status: the patient has a normal appetite and normal diet. Patients do not like fried food and drinks and seldom eat snacks. There was no binge drinking and overeating. Fasting began at 20:00 on December 16th.
3) Exercise status: patients can move freely on weekdays, and the functions of cervical vertebrae, upper limbs and lower limbs are normal.
4) History of allergy: no history of food and drug allergy, no antibiotic skin test.
5) Menstrual history: the patient was 13 years old with menarche and regular menstruation. The last menstruation ended on December 13.

3.2.2. Psychological Evaluation

1) The patient is very anxious. Poor sleep condition and difficulty in falling asleep.
2) Patients do not know much about the disease, worry about the process and effect of the operation, and fear that the child will be left unattended after the failure of the operation.

3.2.3. Evaluation of Social Support Status

1) The patient is married and has a 5-year-old child. There is usually a harmonious family relationship.
2) The patient was accompanied by her husband in this hospital, and the husband took good care of her. The children are left at home taken care of by their grandparents.
3) The payment method of patients' medical expenses is employee medical insurance + commercial insurance, and the economic pressure is less.

3.3. Main Nursing Problems

1) Anxiety: It is related to worrying about the condition of the operation, the recovery and the unfamiliar environment of the operating room.
2) Risk of impaired skin integrity: It is related to weight loss, long operation time and intraoperative exudation.
3) Risk of hypothermia: It is related to weight loss, large incision and long operation time.
4) Risk of postural nerve injury: It is related to the special position and long operation time of the operation.
5) Risk of tumor cell implantation and metastasis It is related to improper operation and improper implementation of isolation technology.

3.4. Nursing Measures

3.4.1. Anxiety: It Is Related to the Worry About the Operation and the Unfamiliar Environment of the Operating Room

Nursing measures:

The day before operation: the itinerant nurse learned about the patient's condition and psychological behavior through the doctor and the electronic information system. After that, the itinerant nurse visited the patient in the ward and introduced the environment of the operating room to him. And the itinerant nurse explained to the patients the process of operation and anesthesia and the matters needing attention, so as to reduce the strangeness of the patients to the operating room.

We preach to the patient's accompanying staff (in this case, the patient's husband) and explain what the family members can do to help the patient before and after operation. We told them that the treatment of cervical cancer is a long process, family support is very important to the physical and mental recovery of patients, and family members are encouraged to comfort and accompany the patients.

We encourage patients to communicate with patients who have successfully operated on. Peer education [9] was used to enhance patients' confidence in surgery.

3.4.2. Risk of Impaired Skin Integrity: It Is Related to Weight Loss, Long Operation Time and Intraoperative Exudation

Nursing measures:

1) Flatness of the bed unit: we keep the bed unit flat before operation to avoid wrinkles and remove the patient's clothing.
2) Use decompression pads: we use hair rings on the patient's pillows, large gel pads on the buttocks, and heel pads on the feet and ankles. This decompresses the compressed area.
3) Before operation, we put a highly absorbent nursing pad on the buttocks of the patients. This makes the vaginal exudate during the operation can be absorbed in time to avoid long time immersion in the sacral caudal exudate.
4) During the operation, we avoid placing heavy surgical instruments on patients for a long time to avoid sexual injury of medical instruments.

3.4.3. Risk of Hypothermia: It Is Related to Weight Loss, Large Incision and Long Exposure Time

Nursing measures:

Before operation: the room temperature is adjusted to about 25 degrees.

After the patient enters the room, we give the quilt to keep warm in time. During the catheterization, we do a good job of keeping the patient's upper body warm.

Inflatable heating blankets were used during the operation. According to the patient's body temperature monitored by anesthesia, the temperature of thermal insulation blanket was adjusted dynamically.

A heating device was used for intraoperative infusion and blood transfusion. The intraoperative flushing solution uses distilled water of about 36-37 degrees. We avoid using normal temperature liquids.

30min before operation, raising the air conditioning temperature of the operating room to 25 degrees in time.

After the operation, we dressed the patients in time and covered the quilt.

3.4.4. Risk of Postural Nerve Injury

Nursing measures:

The abduction range of the right upper limb is less than 90 degrees. Reducing the abduction of the right upper limb as much as possible without affecting the operation of the surgeon.

In the process of ureteral stent placement in the lithotomy position, the abduction range of both lower limbs was less than 90 degrees, and the pressure of popliteal nerve was avoided.

When placing the supine position for laparotomy, the lower limbs should be placed in physiological bending as far as possible to avoid pressure on the popliteal nerve.

When using the restraint belt, it should be loosened and tightened properly to avoid nerve damage caused by excessive restraint.

3.4.5. Risk of Tumor Cell Implantation and Metastasis

Nursing measures:

The surgical isolation technique was strictly carried out during the operation. The surgical isolation area is set up and the surgical instruments are placed in different areas. Tumor tissue, instruments that have come into contact with tumor tissue, suture needles and dressings should be properly placed in the isolated area and should not be used in other parts.

When the tumor tissue falls off in the surgical area, the surgical isolation steps (immediate withdrawal, flushing, replacement, replacement of the sterile area) should be followed.

When gloves come into contact with tumor tissue, gloves should be changed in time.

3.4.6. Risk of Pipe Falling off

Nursing measures:

Correct fixed pipeline: indwelling needle, drainage tube, catheter, etc., do a good job of primary and secondary fixation.

In the process of changing posture, make sure that there is no traction of the infusion tube and catheter. After each change of position, checking the condition of each pipeline in time.

Many people assisted the patient in the process of bed transfer and transportation. Protecting the pipeline and avoiding pulling the pipeline.

3.4.7. Risk of Infection It Is Related to Large Incision, Long Operation Time, etc.

Nursing measures:

30min-1h before operation, antibiotics were given as directed by the doctor. When the operation time is more than 3 hours, or the bleeding is larger than 1500ml, antibiotics should be added in time.

During the whole operation, the itinerant nurses did a good job of supervision, and all the personnel involved in the operation strictly implemented the aseptic technique of the operation.

We strictly control the number of visitors to the operating room, which cannot exceed 3.

3.5. The Outcome of the Patient

1) The mood of the patient was stable. She can cooperate with the operation of changing bed, venipuncture and so on.
2) The skin of the patient was intact and the skin of the compressed parts such as occipital, sacrococcyx, foot and ankle was not damaged.
3) The body temperature of the patient was 36 degrees when entering the room, and the whole body temperature was 36-37 degrees during the operation. After the operation, the skin was warm and no hypothermia occurred.
4) All the pipes were well protected during the operation, and no extubation occurred.
5) The patients were able to get out of bed and exercise 3 days after operation. Physical activity is normal. There was no postural nerve injury and no infection in the incision. The patient can actively cooperate with postoperative treatment and are full of confidence in postoperative recovery.

4. Conclusion

When young cervical cancer patients undergo surgical treatment, there will be many nursing risks such as anxiety, skin integrity damage, hypothermia, orthostatic nerve damage, tumor cell metastasis, infection, etc. The operating room nurses should communicate with the chief surgeon and the ward before surgery The case manager actively communicates, and on the basis of fully evaluating the patient, formulates a personalized nursing plan according to the existing nursing risks, and at the same time, operating room nurses should work close with the surgeon and anesthesiologist to ensure the ensure patient safety.

5. Experience Sharing

The National Health Commission emphasizes "paying attention to medical humanistic care" in its plan to improve medical services. It is necessary to improve the humanistic literacy of medical staff and strengthen the humanistic care for patients [10]. Some studies have shown that the perioperative humanistic care nursing model can reduce the tension and anxiety of surgical

patients, which is beneficial to the cooperation and treatment of patients [11, 12]. Through this case, I have a deep experience in humanistic care before operation. I share as follows:

5.1. A Warm Self-Introduction

During the preoperative visit, we first introduced ourselves to the patients: "Hello, I am the nurse responsible for cooperating with your operation tomorrow. My name is XXX." I will be by your side from the time you enter the operating room to the end of the operation tomorrow. You can call me at any time in the whole process, and I will try my best to help you out. Now, may I know about you so that I can prepare for tomorrow's operation? " This way of communication can win the trust of patients and allay their fear of the operating room.

5.2. The Skillful Use of Peer Education

Peer education plays a very important role in health education. Behavioral science research suggests that patients are more likely to listen to and receive health information if their experiences are similar to each other, care about the same things and face the same health problems. Thus personal attitude, belief and behavior will change, which is helpful for patients to correctly grasp the essentials [13]. In this case, the patient's ward happened to have a 45-year-old aunt who returned to the hospital for a second chemotherapy after cervical cancer surgery. My aunt's operation was very successful, her mentality was very good, and she was full of confidence in her recovery after operation. Therefore, during the preoperative visit, we encourage patients to exchange their experience in surgery and postoperative treatment with their aunt, so as to enhance their confidence in the operation.

5.3. Giving Health Education to the Accompanying Personnel

Some studies have shown that health education for patients' accompanying personnel can provide patients with more support and protection, which is conducive to the physical and mental recovery of patients [14]. In this case, the patient's husband accompanied the hospitalization and care. The patient is most worried about her 5-year-old daughter, who is worried about losing her mother and no one to take care of her after the failure of the operation. During the preoperative visit to the patients, the author also gave health education to her husband and encouraged the family members to comfort and accompany the patients. Family support is very important to the physical and mental recovery of patients. To create a warm and comfortable atmosphere is conducive to the physical and mental recovery of patients [15].

References

[1] Wang Ning, Liu Shuo. Interpretation of the 2018 Global Cancer Statistical report [J]. Electronic Journal of Comprehensive Therapy for Cancer, 20119, 5 (01): 87-97.

[2] Freddie Bray, Jacques Ferlay, et al. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries [J]. CA: A Concer Journal for Clinicians, 2018, 68 (6): 394- 424.

[3] Wei Lihui. Facing the challenge of accelerating the elimination of cervical cancer [J]. Chinese Clinical Journal of Obstetrics and Gynecology, 2021: 22 (1): 1-2.

[4] Marc Arbyn, Elisabete Weiderpass, Laia Bruni, et al. Estimates of ncidence and mortality of cervical cancer in 2018: a worldwide analysis [J]. The Lancet Global Health, 2020, 8 (2) 191-203.

[5] Chen Wanqing, Zheng Rongshou, Zhang Siwei, et al. Analysis of incidence and mortality of malignant tumors in China in 2017 [J]. Chinese Oncology, 2020, 515, 1-8.

[6] Rajesh Sharma, Global, regional, national burden of breast cancer in 185 countries: evidence from GLOBOCAN 2018 [J]. Breast Cancer Research and Treatment 2021: doi: 10.1007//S10549-020-06083-6.

[7] Guidelines for the diagnosis and treatment of cervical cancer (fourth edition). Chinese Journal of practical Gynecology and Obstetrics, 2018. 34 (6): 613-622.

[8] Zhu Tao. Current situation and progress in diagnosis and treatment of cervical cancer [J]. Chinese tumor. 2020, 16 (2): 200-203.

[9] Lu Ya, Sun Liuliu. Effect of peer education on quality of life and overall well-being of patients with cervical cancer undergoing chemotherapy [J]. Evidence-based nursing. 2021 J 7 (06): 799-802.

[10] National Health and Family Planning Commission of the people's Republic of China. Interpretation of the Action Plan for further improvement of Medical Services [EB/OL]. (2015-01-05).

[11] Huang Xiaochun. Effect of humanistic care nursing model in nursing care of patients undergoing coronary angiography [J]. Chinese Medical Sciences, 2017, 7, 7, 12-130.

[12] Chen Ying, he Yue, Peng Shuyan. Perioperative humanistic care of patients with advanced gynecological malignant tumors [J]. Chinese Journal of Modern Nursing. 20195025 (10): 1303-1304.

[13] Hu Bo, Lin Wu, Yuan Yifeng. Peer education and peer voluntary assistance and AIDS prevention Hooper [J]. Practical Clinical Medicine, 2009. 10 (11): 136-138.

[14] Chen SuXia,, Fan JingWen. Effect of family synchronous health education on treatment compliance and selfmanagement efficacy of patients undergoing pancreatic cancer surgery management efficacy of patients undergoing pancreatic cancer surgery [J]. Oncology Progress, Apr 2021 Vol. 19, No. 7: 745-748.

[15] Liu Zhen. Effect of family support on uncertainty and quality of life in postoperative patients with cervical cancer [J]. Chinese prescription drugs. 2018 Journal 16 (08): 107-108.