

The Efficacy Analysis on Nursing of Female Pelvic Floor Reconstruction Operation in Perioperative Period

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ABSTRACT Objective: This paper is to observe and discuss the best nursing procedure and measure of pelvic floor reconstruction. **Method:** Retrospectively analyze the clinical data of 16 cases pelvic organ prolapse patients who have been admitted in Obstetrics and Gynecology Department of the Fifth People's Hospital of Ningxia from January 2013 to May 2015, and implement measures of preoperative and postoperative nursing. **Results:** 16 cases patients are recovered well after operation with no complications. **Conclusion:** Effective nursing measurement is the key to reduce postoperative complications and increase achievement ratio of operation.

KEYWORDS

Pelvic floor
Injury
Reconstruction
Peri-operative period
Nursing

1. Introduction

Female pelvic floor injury and function degeneration increasingly affect the health and living quality of the middle-aged and elderly women [1]. Metroptosis and fornix vaginae bulging are middle and aged women's common diseases that have strong impact on their health and living quality, especially the work and social activities. With the entering of "aging" society, the morbidity of pelvic organ prolapses is increasing year by year. In recent years, with the penetration of pelvic floor dissection research and cognition, improvement of operative instruments, the invention and application of patching materials, and operation of pelvic floor repair and reconstruction have made great progress, and the treatment effect and nursing measurements are also improved continually [2]. Our department adopts pelvic floor reconstruction method to treat 16 cases of female patients from January 2013 to May 2015 and achieves satisfactory results. The nursing experiences are listed as following.

2. Data and methods

2.1. General data

From January 2013 to May 2015, 16 cases of pelvic prolapse patients have been admitted to the Fifth People's Hospital of Ningxia, among which, 2 cases are pure metroptosis, 3 cases are pure stress incontinence, 6 cases are metroptosis with anterior and 5 cases are posterior and anterior vaginal bulging. Their ages range from 45 to 72 years old.

2.2. Method

Pure metroptosis patients shall adopt pelvic floor tape construction method, metroptosis patients with vagina bulging shall adopt colporrhaphy partly, and metroptosis patients with stress incontinence shall adopt TVT-O method to execute tension-free vaginal tape. Metroptosis with vagina bulging patients shall adopt colporrhaphy partly.

3. Results

The operation processes of the 16 cases patients are successful and their ureters are pulled out in 5 to 7 days after the operation and their self-urinations are successful. 2 cases self-urinations are unsuccessful, thus catheters are retained for 3 days and opened on regular time in order to practice the contraction function of bladder. Meanwhile, patients are enjoined to drink more water, and then their self-urinations are successful when taking catheters out again. On the basis of indwelling catheters and Chinese acupuncture point's execution, one case's self-urination is successful. Another case appears mesh erosion infection half month later after leaving hospital, and the patient is

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hospitalized again, accepted antiphlogosis treatment and controlled the infection. The patient takes one month of traditional Chinese medicine antiphlogistic continuously after leaving hospital.

4. Nursing

4.1. Preoperative nursing

4.1.1. Preoperative physical examinations

The examinations include routine medical examination and gynecologic examination, POP quantitative analysis of pelviscopy, ultrasonic test for excluding uterine and ovary disease, cervical liquid-based monolayers cell test for excluding cervical disease, digital rectal examination for excluding rectal disease, organ function examination of the whole body, such as electrocardiogram, blood routine examination, four coagulation tests, hepatorenal function, etc.

4.1.2. Mental nursing

Most patients are depressed for a long time with different degrees of inferiority complex. In addition, they do not know the new technique, fear the operation complications and worry about high cost of treatment, thus mental nursing is especially important. All the 16 cases of patients are dredged by the professional trained charge nurses, who can make the patients tell their anxious and doubts, relieve patients' mental stress. Nurses can introduce the advantages of the operation; teach patients use relaxing method consciously in order to guarantee the sleep quality.

4.1.3. Levator Ani exercise.

Levator Ani exercise is consciously spontaneous contraction of pelvic muscles and especially Levator Ani in order to reinforce urinary continence ability and pelvic muscles strength and lay a foundation for postoperative Levator Ani exercise. All the 16 cases of patients make Levator Ani exercise, and the exercise methods are: prostration, relax the body, do rectum exercise, and relax after 5 seconds of contraction. The exercise shall be repeated for 15 minutes and 3 times per day.

4.1.4. Vagina preparation

The operation is always conducted 3 to 5 days after the menstruation is clean, for preventing from the next menstruation immediately after the operation. Vagina shall be scrubbed with 0.5% iodophor tampons 3 days before the operation, 1 time per day, and use 1 to 2 pills of metronidazole in vagina after the scrubbing. Because of long course of the disease, some patients' uterus comes off the vaginal orifice, then after long time of rubbing, it will be swelled, ulcerated and keratinized. Nurses shall pay attention to scrubbing vaginal posterior fornix, vaginal wall, and cervix aperture; apply estrogen ointment (such as conjugated estrogens vaginal cream) in vagina for 3 to 5 days in order to increase the elasticity and thickness of mucosa and its anti-infection capacity. Reduction of prolapse parts

if uterus comes off vagina and the operation can only be made after the ulcer is cured.

4.1.5. Bowel preparation

This operation will be operated in perineum and the incision should be near the anus. The preoperative bowel preparation can prevent from sphincter dilatation after anesthesia which cannot control cacation and increase the risk of infection. It may also reduce pneumatosis, turgor and feaces inside intestinal tract and influence the operation. Patients shall accept 3 days of no residue diet before the operation and take oral complex polyethylene glycol electrolyte powder 2 hours after lunch a day before the operation, drink no water 8 hours before the operation and accept cleansing enema on the morning of operation day.

4.1.6. Skin preparation

Patients' skin was shaved a day before the operation. Area of skin preservation: up to processus xiphoideus, down to upper 1/3 of both thighs, reach midaxillary line of both sides which includes the cleaning of umbilical region and perineum.

4.1.7. Health education

The patients for taking pelvic floor reconstruction operation are always middle-aged and elderly people, and their physiological functions and the operation adaptive capacity are declined and they have special psychic reaction. They are anxious about expensive operation cost, lacking of adequate awareness to meshes, worried about the input of foreign matter which may have adverse reaction and influence sexual life, etc. Therefore, nurses shall establish good nurse-patient relationship with the patients, give patients more emotional support, stabilize patients' emotions, introduce brief method of the operation, emphasis on the advantages of high safety, minimal trauma, and rapid recovery, answer patients' questions patiently which can erase patients' worry and anxiety to the operation, and make patients cooperate with the treatment and nursing.

4.2. Postoperative nursing

4.2.1. Disease observation

Nurses shall observe patients' consciousness condition in ward after the operation and make an inspection tour every 15 to 30 minutes. The inspection tour can be made every two hours after patients' condition is stabilized. Nurses shall observe if there is any errhysis or seepage existing in the vagina, pay attention to quantity, quality, color and peculiar smell, etc. Defecation condition shall be noticed after the operation because it conducts around the rectum. Nurses shall report to doctors in time for management if there is any abnormal situation exists.

4.2.2. Postoperative lying positions and activities

The operation always adopts combined spinal-epidural

anesthesia, therefore patients shall lie on the back for 6 hours when going back to the ward. Nurses shall help the patients to bend and stretch toes passively. 6 hours after the operation, patients' zusanli and sanyinjiao acupoints shall be massaged. Patients' position shall be changed every 1 to 2 hours during the lying period. Prostration is good for the patients 5 days after the operation, and semi-reclining position is forbidden in order to reduce vaginal tensility. Patients shall avoid long time of standing and crouch when they can make off-bed activity, and shall select pedestal pan for toilet.

4.2.3. Pain nursing

Pain killer shall be given if patients have obvious pain and clear reason of post operation pain. At the same time, some relaxation therapy to ease the pain can be told to the patients, such as listening to the music, and rhythm of breathing.

4.2.4. Nursing of perineum and observation of vagina bleeding and flow liquid

Scrubbing perineum with iodophor twice a day by keeping the wound on haunch and upper area of pubis are small and dry, cleaning skin around vulva and anus in time after cacaation, and preventing postoperative infection.

4.2.5. Micturition observation and nursing

During indwelling catheter period, catheter shall be managed well and keep clear at any moment. Nurses shall encourage patients to drink more water, observe urine color and amount, prevent urine flow back and cause retrograde infection. Nurses shall enjoin patients to drink more water without holding back urine after taking the catheter. Dysuria patients shall control water consumption to prevent the bladder being overfilled, take measures to induce urination and make secondary urethral catheterization if invalid. Patients shall accept B-ultrasonic examination to check residual urine in bladder each time after pulling out urinary catheter. It can prove the recovery of bladder function if the residual urine is <100 mL.

4.2.6. Postoperative Levator Ani exercise

It can enhance the tension of pelvic floor and muscles around urethra.

4.2.7. Prevention and nursing of postoperative complications

(1) Erodent infection: The most common complication of applying meshes is erodent infection, which shows an increasing of vaginal secretion, sometimes with smell hemorrhagic secretions and foreign body sensation exists in vagina. The complication of imbedding meshes in posterior vaginal wall is rectal injury, constipation and perineum pain, etc. and patients shall contact with doctors in time.

(2) Bladder injury: Paying attention to observing urine

character, such as gross hematuria which might be bladder injury. Nurses shall inform doctors and prolong indwelling catheter time in order to make bladder have a full rest and cure by itself.

(3) Lower limb vein thrombosis: Lower limb vein thrombosis is easy to occur after taking gynecological operation [3]. Our department adopts postoperative acupoint massage, the coordinate of bend and stretch toes and knees have good results. Moreover, nurses shall try to avoid lower limb infusion and blood drawing, prevent postoperative abdominal distension and uroschesis and make good pain nursing work. Nurses shall apply hemostatics and anticoagulant drug, etc. and add liquid after the operation rationally, reduce blood viscosity which may prevent the occurrence of lower limb vein thrombosis [4].

4.2.8. Health education

Nurses shall guide the patients to change the behavioral patterns and living habits that may increase abdominal pressure, avoid doing heavy work, lifting heavy things and jumping movement, drink more water and eat more high fiber foods such as fruits and vegetables, keep bowels open, prevent increasing of abdominal pressure and reduce relapse, pay attention to keeping warm, prevent and cure respiratory disease, avoid intense and chronic coughing, and forbid sexual life for 3 months in order to avoid suture being avulsed.

5. Discharge instruction

(1) Rest well: Patients shall take a rest for 2 to 3 months after discharging from hospital, avoid ass work or crouch forcefully, prevent from cold and cough, keep bowels open and make periodic checkups in time if the condition is abnormal.

(2) Menopauses patients shall take oral estrogen for 2 to 3 months in order to increase the elasticity, thickness and anti-infection ability of the vagina mucosa.

(3) Patients shall do rectum and elevator exercise every day in order to practice muscular tension of pelvic floor and forbid the movements that may increase negative pressure such as long time of stand or crouch, adduct both legs as much as possible when lifting heavy things or crouch [5].

(4) Patients shall pay attention to hygiene and keep the perineum clean and dry, change underwear frequently, forbid tubbing and sexual life for 2 months.

(5) Eating light food that shall have low fat, high protein and rich in crude fiber in order to keep open bowels [6].

6. Conclusion

Metroptosis influences the living quality of the middle-aged and elderly women and operation is the main treatment method. Improving pelvic floor reconstruction method is a newly-developing subject and a new way to operate through vagina with imbedding meshes to increase fascia ligament's support to pelvic floor structures which can reduce the probability of postoperative recurrence. It has the

advantages of minimal trauma, less bleeding, exact effect and less recurrence which can enhance female patients' living quality directly. With the observation condition of 16 cases of pelvic floor reconstruction patients, we found that preoperative psychological guidance is good for relieving nervousness and anxiety mood, and all the preoperative preparations can establish foundation for the smooth going of operation; postoperative observation and nursing can reduce the occurrence of postoperative complication, relieve the pain and shorten the duration of hospital stays.

Conflicts of interest

These authors have no conflicts of interest to declare.

Authors' contributions

These authors contributed equally to this work.

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