

Analysis of Perioperative Care in Laparoscopic Panhysterectomy

Chunhua Zhang¹, Silan Ren²

¹ Department of gynecology, the First Xiangya Hospital of Central South University, Changsha 410008, Hunan, P.R. China;

² Department of Nursing, Sichuan Vocational College of Health and Rehabilitation, Zigong 643000, Sichuan, P.R. China;

First Author: Chunhua Zhang, female, undergraduate, supervisor nurse in department of gynecology, the first Xiangya Hospital of Central South University, Changsha 410008, Hunan P.R. China;

Correspondence: Chunhua Zhang. Email: 573700834@qq.com.

ABSTRACT

Objective: To explore the curative effect of panhysterectomy with laparoscope and summarize the experiences of perioperative care.

Methods: Forty cases of perioperative nursing patients for laparoscopic hysterectomy and abdominal hysterectomy were selected for the control analysis of treatment effect with different nursing measures.

Results: The operation time of the laparoscope group was longer than that of the abdominal group. However, the bleeding amount during surgery, postoperative early ambulation time, recovery time of intestinal bowel function, reduction of patient suffered stress, improvement of quality of life of patients and hospitalization time were significantly reduced, and the economic burden of patients was also reduced. Meanwhile, the indicators of incidence of postoperative complications were significantly less, reducing the work pressure of nurses, improving the care effectiveness, and significantly increasing the patients' satisfaction with nursing work.

Conclusion: The laparoscopic panhysterectomy is characterized by the advantages, including small abdominal incision, shorter hospital stay, improved ward bed turnover rate, low infection rate, and fast recovery. Its curative effect is superior to the abdominal hysterectomy and it is more suitable for the clinical application. Simultaneously, the scientific guidance and care given during the perioperative period will be more helpful to the post-operative healing of patients.

Key Words: laparoscope; panhysterectomy; perioperative care



ISSN:2397-9119

<http://mo.qingres.com>

OPEN ACCESS

DOI: 10.20900/mo.20160018

Received: May 21, 2016

Accepted: July 15, 2016

Published: August 25, 2016

Copyright: ©2016 Cain et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

The panhysterectomy is usually used to heal endometrial lesions, hysteromyoma, adenomyosis and other gynecopathy symptoms. The traditional panhysterectomy mostly focuses on the abdominal hysterectomy and hysterectomy via the vagina. During the increasing perfection process, laparoscopic surgery has been widely applied due to its own advantages, including small bleeding amount, fast healing and recovery, improved quality of life of patients, low infection rate, fewer complications and shorter hospital stay. The clinical data of 80 patients with the laparoscopic panhysterectomy from July 2013 to June 2014 were compared and analyzed in this study.

The analysis results show a good curative effect. The experiences of perioperative nursing are now shared here.

SUBJECTS AND METHODS

1. Subjects

Eighty patients were equally divided into two groups at random: abdominal group and laparoscopic group. Abdominal group was the control group, aged 37 – 70 years, with a mean age of 50.1 years old. It was composed of 40 patients, including 19 patients with hysteromyoma, 9 patients with adenomyosis, 1 patient with cervical intraepithelial neoplasias level III, and 11 patients with endometrial lesions; 9 patients were concurrently with hypertension and 10 patients concurrently with diabetes. Laparoscopic group was the experimental group, aged 38 – 69 years old, with a mean age of 49.5 years, including 18 patients with hysteromyoma, 10 patients with adenomyosis, 2 patient with cervical intraepithelial neoplasias level III, and 10 patients with endometrial lesions, of which, 11 patients were concurrently with hypertension and 6 patients concurrently with diabetes. No statistical significance existed for age, disease condition, education level, and other dimensions in the patients of two groups ($P < 0.05$), namely, they were experimentally comparable. All patients had no contraindication against anesthesia and surgery.

2. Methods

The following cares were taken during the surgery of the laparoscopic group: 1) Do not insert the catheter and actively encourage and guide patients for an early ambulation to make stool visit at bedside or in toilet after the surgery; 2) Encourage patients for an early ambulation or to make the physical therapy at the site of pain to alleviate the pain of some patients with shoulder-backache after the surgery, under the condition without patients controlled analgesia (PCA), thus helping the patients recover gastrointestinal functions as early as possible; 3) Use the new scientific methods as per the dietary requirements before the surgery: light digestible and semi-liquid food were eaten, and no food or drinking was eaten since 22:00 pm the day before surgery; 4) Reduce the accompanying pressure after the surgery; 5) Backache symptoms may appear for the patients subjected to laparoscopic surgery, and no backache may appear for the patients used catheter and PCA in uterine abdominal group. The nurses should explore better ways to minimize the complications in laparoscopic group; and 6) The operation time of laparoscopic group and abdominal group was compared.

3. Perioperative Care

The patients in abdominal group were nursed as per the

usual methods and the patients in laparoscopic group were for the perioperative care.

3.1 Preoperative Care

3.1.1 Psychological Care

The related responsible nurses should pay patrol visit to the surgical patient 24 h prior to the surgery according to the surgery requisition to master the basic information and disease conditions of the patient, including weight, body temperature, blood pressure, and the like. They should allow the patient and its families to understand the relevant issues and attentions, surgical procedure, and advantages in the surgery process, eliminate the patient's anxiety and fear mentality, and let the patient to understand and be confident in the surgery. The relevant studies showed that the psychological anxiety of the patients before the surgery would significantly affect the surgery effect and the postoperative recovery [1]. The practical survey results suggest that the patients had certain psychological anxiety and fear and their average Hamilton Anxiety Scale scores had exceeded 13 points.

3.1.2 Routine Examinations

The routine examinations include liver, kidney functions, blood type, chest x-ray examination, blood routine examination, bleeding and blood coagulation time, electrocardiogram, etc. Red cell suspension (RCS) of 200 ml was prepared 24 h before the surgery. Pulse, blood pressure, body temperature, breathing and other indicators should be checked prior to the surgery.

3.1.3 Skin Preparation

The patient was urged to wash hair, cut nails, shower and change clothes, and other personal hygiene 24 h prior to the surgery. The jewelry and dentures were not carried into the operating room. The wrist band was improved, including name, bed number, gender, and inpatient number of the patient. The pubic hairs and the skin were shaved. Skin preparation was from xiphoid to midaxillary line to the position of 1/3 thigh (including the vulva). The puncture site for laparoscopic surgery was at the navel, so the navel umbilication was completely cleaned. Specific steps were as follows: scrub the navel umbilication with turpentine and 75 % alcohol before and after the surgery to avoid the wound infection after the surgery.

3.1.4 Preparation of Vagina

The surgery of patients could not be performed in their menstrual period. Anti-inflammatory hemostasia measures should be taken for the patients with constant and endless bleeding. The uterus should be cleaned if it was required. The vagina should be prepared and lavaged by diluents - complex iodine - within 3 days before the surgery, with a lavage frequency of twice a day, especially at least once in the morning of the surgery day, and the aim is to clear the ascend bacterial infection distributed in the vagina and

avoid the influence on postoperative recovery.

3.1.5 Gastrointestinal Preparation

Patients in laparoscopic group should eat the digestible semi-liquid food without too much slag a day before the surgery and the patients in abdominal group could not eat the food that might be easy to generate gas, including, high-carbohydrate foods, milk and soya bean milk to avoid the gastrointestinal flatulence from impeding the successful operation. No eating and drinking was permitted after 22:00 pm the day before the surgery. The patients took sulfate-free polyethylene glycol electrolyte powder for catharsis in the afternoon the day before the surgery. The lavation should be made once at night the day before the surgery or in the morning on the surgical day for purpose of emptying the gastrointestinal tract to facilitate the exposure of operative field and reducing the possible complications after the surgery.

3.2 Post-operative Care

The patient was returned to the ward and the patient's families were informed of the surgery information, and the related matters were then transferred to the ward nurses. If the patient was in a coma, the oxygen should be given, with oxygen content of 2-3L/min or so. The patient lied on her back without pillow for 6 h, with the patient's head toward to one side [2]. The patients should be encouraged for an early ambulation within 6-24 h after the surgery to reduce the bloating pain. In case of a general anesthesia, the eating could be available after she awaked. In most cases, the patients could drink water and eat insipid nutrient soup 6 h after the surgery. The nurses must follow up and observe the changes of BP, R and P data of the patients in a real-time manner within the day after the surgery, and pay close attention to the patient's complexion and spirit condition, observe whether the wound dressing was dry, or whether there was an early vaginal bleeding symptom. During the perioperative period, the patients were encouraged to voluntarily urinate.

RESULTS

1. Operation Effect

All patients rehabilitated and discharged from the hospital after the surgery. The rehabilitation time of the patients in abdominal group for routine surgery was longer than that in laparoscopic group, while the bleeding amount in surgery, catheter pull-out time, ambulation time, recovery time of gastrointestinal function, hospitalization time and other indicators of the patients in laparoscopic group were significantly shorter than those in the abdominal group. Specific parameters were shown in Table 2-1.

2. Complications

In the abdominal group, there were 2 patients with LEDVT, 4 patients with bloating, 1 patients with wound infection, and 1 patient with urinary retention. In laparoscopic group, there were 2 patients with bloating and shoulder-back pain. The probability of complications in abdominal group was 19 % and 5 % in laparoscopic group with a significant difference ($P < 0.05$).

Table 2-1 Statistical Surgery Comparison of Patients in Different Groups ($\pm s$)

Group	Case (Person)	Surgery Time (min)	Bleeding Amount (ml)	Pull-out Time (h)	Ambulation Time (h)	Recovery time of gastrointestinal function (h)	Hospitalization time (day)
Laparoscopic Group	40	110 \pm 25	45-85	0	25 \pm 3.1	25 \pm 3	6 \pm 2.3
Abdominal Group	40	80 \pm 40	95-145	47 \pm 4.2	48 \pm 3.2	32 \pm 7	11 \pm 2.4
P Value		< 0.02	< 0.02	< 0.01	< 0.02	< 0.04	< 0.01

3. Patients' Satisfaction Comparison between Two Groups

The satisfaction of the patients in laparoscopic group was 99 % and 78 % in abdominal group with a significant difference, namely, it was statistically significant ($P < 0.05$).

DISCUSSION

1. Sufficient pre-operative preparation ensures less incidence probability of post-operative complications

To care and understand the patients and provide the effective psychological care to them can allow the patients to establish the confidence in the treatment of diseases and act in close cooperation with medical staff, while this is also the first precondition for a successful surgery [3]. The pre-operative routine examination ensures the safety of performed surgery, while the preoperative preparations for vagina and gastrointestinal tracts and skin care are also the important factors to reveal the operative field, and reduce post-operative infection, and bloating generation rate.

2. Sufficient Post-operative Care Promotes the Early Healing of the Patients

The follow-up observation of patient's conditions after the surgery can effectively reduce the occurrence of bleeding complications. The catheter care and diet and guidance of related activities can reduce the probability of infection in patients, help to avoid the artificial pneumoperitoneum complications and avoid the bloating and vomiting and other symptoms to ensure a more comfort for the patients. This will be conducive to the positive nitrogen balance after the surgery, help to accelerate the wound healing and be in favor of the rehabilitation of the patients as early as possible [4].

3. Strengthen joint efforts and coordination between operation group staff and ward nurses

The success of laparoscopic surgery depends largely on the coordination of work staff of operation group and the joint efforts of operation group staff and ward nurses [5]. The necessary preparatory work before the surgery shall be made including diet, vaginal and gastrointestinal cleaning, and it is required to comprehensively master the dynamic condition at various stages of laparoscopic surgery, take corresponding nursing measures, and follow up and monitor and observe the changes of BP, R and P data of the patients after the surgery. It is not required to insert the catheter and conversely the patients shall be encouraged for an early ambulation and make stool

visit at bedside or in toilet after the surgery. The patients are encouraged for an early ambulation or to make the physical therapy at the site of pain to alleviate the pain of some patients with shoulder-backache after the surgery, under the condition without patients controlled analgesia (PCA), thus helping the patients recover gastrointestinal functions as early as possible. It is necessary to observe the bleeding conditions of the wound and vagina of the patients, reduce the accompanying pressure after the surgery and strengthen the working efficiency of surgical care to ensure the successful implementation of the surgery.

CONCLUSION

The laparoscopic panhysterectomy is characterized by the advantages, including small abdominal incision, shorter hospital stay, improved ward bed turnover rate, low infection rate, and fast recovery. Its curative effect is superior to the abdominal hysterectomy and it is more suitable for the clinical application. Simultaneously, the scientific guidance and care given during the perioperative period will be more helpful to the post-operative healing of patients. However, a better curative effect of panhysterectomy with laparoscope shall be further studied.

CONFLICT OF INTERESTS

The authors declare no conflict of interests.

FUNDINGS

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

REFERENCES

1. Xiaojuan Li, Qin Zhou. Perioperative Nursing of Hysterectomy with Laparoscope [J]. Modern Journal of Integrated Traditional Chinese and Western Medicine, 2014,23(26):21-24.
2. Yaofeng Xu. Perioperative Nursing of Hysterectomy with Laparoscope [J]. Inner Mongol Journal of Traditional Chinese Medicine, 2014, 9 (27):101-104.
3. Lijin Song. Comparison of Clinical Effects between panhysterectomy and abdominal hysterectomy with laparoscope. Contemporary Medicine, 2014, 20 (25):91-94.

4. Lijun Duan, Hui Wang, Yang Liu. Analysis of Complications with Five Cases with Panhysterectomy injury with Laparoscope. Chinese Journal of Minimally Invasive Surgery, 2015, 15 (1):79-81.
5. Shuyang Hou, Xiuping Zhang, Hongli Cao. Clinical Application of Evidence-based Care of Patients in hysteromyomectomy with Laparoscope. China Practical Medicine, 2015,10 (2):131-133.