PAIN SITUATION AMONG PATIENTS WITH POSTOPERATIVE UTERINE FIBROIDS AT HANOI OBSTETRICS AND GYNECOLOGY HOSPITAL IN 2022

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ABSTRACT

Objective: *Describe the pain status of patients with postoperative uterine fibroids at Hanoi Obstetrics and Gynecology Hospital in 2022.* ***Participants and methods:*** *A cross-sectional description was conducted on 149 surgical patients with postoperative uterine fibroids from March to May 2022 using Cleeland's Brief Pain Inventory (BPI) quetionnaire to assess the patient's pain status at 3 time points in the first 24 hours, in the first 48 hours , the first 72 hours of surgery.* ***Results***: *The average pain score at the time of first 24h assessment was 6.95 ± 0.35; day 2: 6.81 ± 0.43; day 3: 6.59 ± 0.69. The most painful score at the time of the first 24 hours, day 2, day 3 assessment were 8.16 ± 0.49; 7.22 ± 0.43; 6.21 ± 0.42, respectively. Average pain score at the time of first 24 hours day 2, day 3 assessment were 5.70 ± 0.51; 4.71 ± 0.52; 3.69 ± 0.57, respectively.* ***Conclusion:*** *The average pain score at 24 hours postoperative pain was higher than that at 48 hours and 72 hours postoperatively.*

Keywords: *Pain, surgery, uterine fibroids*

1. INTRODUCTION

Uterine fibroids are the most common benign tumors of the uterus in women [1]. The majority of uterine fibroids have no clinical manifestations [2], but about 30% of them will have severe symptoms that can include abnormal uterine bleeding, anemia, pain and pelvic pressure, back pain, increased urination, constipation or infertility and will require intervention. The incidence of uterine fibroids is 217 - 3,745/100,000 per year and the prevalence is 4.5 - 68.6% [2].

This disease has a major impact on healthcare delivery and costs worldwide [1].

The disease causes difficulties in daily life, self-image and impaired fertility of patients [3]. It is estimated that the cost to the US health care system is up to $34.4 billion per year [4].

The disease is treated with medical, surgical or combined treatment [5]. Laparoscopic myomectomy contributes to fast recovery and short hospital stay, reduces postoperative inflammation and immunosuppression, has little effect on post-operative sex hormone levels, low complication rate. The open surgery usually have more pain duration and pain nature than laparoscopic surgery [6]. Postoperative pain includes acute pain

and chronic pain. Acute pain is commonly reported through various types of surgery, including both hard and soft tissue surgery, despite the use of postoperative analgesia [7]. Poorly controlled acute postoperative pain is associated with increased morbidity, impaired function and quality of life, slow recovery time, prolonged opioid use, and higher health care costs. Currently, there are many methods of pain relief for patients, one of which is the epidural method, the patient is used to relieve pain by infusing pain medication in the first 48 hours after surgery through the Perifix kit, therefore, Post-operative pain was significantly reduced. At the Hanoi Obstetrics and Gynecology Hospital, each month treats about 140 to 170 patients with open cesarean section, about 40% to 50% of patients do not use method of epidural anesthesia, to assess the pain status of uterine fibroids patients after surgery without using epidural method, the research team conducted the research with the title of Pain status among patients with post-operative uterine fibroids at Hanoi Obstetrics and Gynecology Hospital in 2022. With the objective of Describe the pain status among patients with post-operative uterine fibroids at Hanoi Obstetrics and Gynecology Hospital in 2022.

2. OBJECTS AND RESEARCH METHODS

2.1. Research participants

Research participants

Patients undergoing open surgery for uterine fibroids are being treated at the Hanoi Obstetrics and Gynecology Hospital.

Selection criteria:

Patients ≥ 18 years old. The patient with open surgery is being treated at the Hanoi Obstetrics and Gynecology Hospital.

The patient consented to participate in the study.

Exclusion criteria: Patients use the package of post-operative pain relief with epidural anesthesia. At Hanoi Obstetrics and Gynecology Hospital, about 50-60% of patients use an epidural analgesia service package.

The patient was unable to answer the interviewer's questions.

2.2. Research Design

Cross-sectional descriptive study

2.3. Setting and duration

Location: Department of Gynecology, Endocrinology, A5 - Hanoi Obstetrics and Gynecology Hospital.

Data collection period was from March to May 2022.

2.4. Samples and sampling methods

2.4.1. Sample size

Select a sample of all patients undergoing open surgery for uterine fibroids who are being treated in 2 departments - Department of Endocrinology, Gynecology Department A5, Hanoi Obstetrics and Gynecology Hospital. In 2 months of data collection (March 2022 - May 2022), excluding patients who did not meet the sampling criteria, the sample size was collected 149 patients.

2.4.2. Sampling method

Choose a convenient sample, choose a sample according to the above criteria.

2.5. Measurements

The measurement included 2 parts

Part A. General characteristics: Age, number of births, time of surgery, length of surgery, surgical characteristics.

Part B: Questionnaire to assess the patient's postoperative pain at three time points: in the first 24 hours, in the first 48 hours, in the first 72 hours. The resaech used Cleeland's Brief Pain Inventory (BPI) [9] Consists of 4 questions about the pain level (pain score) of the patient: highest pain score, least pain score, current pain score, average pain score. Reliability was at a high level with Cronbach alpha from 0.77 to 0.91 [9].

The 4 - sentence questionnaire asked the patients to self-assess their pain at 4 times when the patient felt "most painful", "least painful", "average pain" and "current pain". Each question uses a scale of 0 to 10 to rate, 0 is no pain and 10 is most painful. "The most painful" is the patient's self-rated pain perception at the time of the most pain on a scale of 0 to 10.

"Least pain" is the patient's self-rating of their pain perception at the moment of least pain on a scale of 0 to 10.

"Average pain" is the patient's self-rated pain perception at the time of average pain on a scale of 0 to 10.

"Current pain" is the patient's self-assessment of their pain perception at the present time on a scale of 0 to 10.

The total mean pain score 24 hours, day 2 and day 3 of postoperative was calculated as the average of four time points (most pain, least pain, average pain, current pain).

2.6. Research ethics

This study was carried out after obtaining the consent of the Ethics Committee of Nam Dinh University of Nursing in accordance with Decision 472/GCN-HDDD of the Ethics Council in Biomedical Research dated 03/03/2022. Patients participating in the study were clearly explained the purpose of the study before answering, they voluntarily participated and signed a consent form or had the right to refuse. All personal information about research participants is kept confidential.
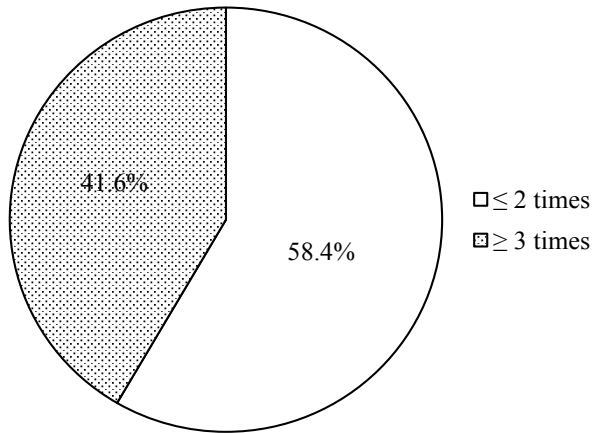
3. RESEARCH RESULTS

3.1 General characteristics of research particiants

Table 1. Demographic characteristics of the study participants (n = 149)

Characteristics		Quantity (n)	Ratio (%)
Age	35 years old	10	6.7
	> 35 years old	139	93.3
	Mean ± SD: 45.60 ± 6.01 (27 - 63)		
Marital status	Living with husband	124	83.2
	Single/widowed/divorced	25	16.8

The average age of the participants was 45.60 ± 6.01. The majority of patients were over 35 years old, accounting for 93.3%.

Chart 1. Characteristics of the number of births of the study participants (n = 149)

Patients who gave birth more than 3 times accounted for a high rate of 41.6%.

3.1.2. Clinical features of the research participants

Table 2. Painkillers used after surgery of participants (n = 149)

Characteristics		Quantity (n)	Ratio (%)
Analgesic	Paracetamol	100	67.1
	Diclovat anal	26	17.4
	Buchen anal	23	15.4
The emotionless method	Body anesthesia method	5	3.4
	Spinal anesthesia method	144	96.6

During the surgery, the patient was given one of the pain relievers of Paracetamol, Diclovat anal, Buchen anal. In which, 67.1% of patients used pain relievers of Paracetamol and 96.6% of patients used spinal anesthesia.

Table 3. Surgical characteristics of the uterine fibroids (n = 149)

Characteristics		Quantity (n)	Ratio (%)
Surgical features	Peel off the fibrous	26	17.4
	Partial hysterectomy	16	10.7
	Complete hysterectomy leaving 2 ovaries	72	48.3
	Complete hysterectomy and 2 ovaries	35	23.5

Among 149 patients, 48.3% of patients had complete hysterectomy leaving 2 ovaries accounted for the highest percentage.

3.2.Pain status of study participants

Table 4. Pain severity at the time of assessment (n = 149)

Pain at the time of assessment	Mean ± Standard Deviation	Range
first 24 hours	6.95 ± 0.345	6 - 8
2nd day	6.81 ± 0.430	5 - 7
3rd day	6.59 ± 0.688	4 -8

The average pain score at the time of assessment of the patients gradually decreased at the first 24 hours, the second day and the third day.

Table 5. The most painful level (n = 149)

The most pain level	Mean ± Standard Deviation	Range
first 24 hours	8.16 ± 0.49	7 - 9
2nd day	7.22 ± 0.433	6 - 8
3rd day	6.21 ± 0.42	5 - 7

The average score of the patient's highest pain level in the first 24 hours after surgery was the highest.

Table 6. The least pain level (n = 149)

The least pain level	Mean ± Standard Deviation	Range
first 24 hours	7.42 ± 0.69	3 - 8
2nd day	3.71 ± 0.68	2 - 7
3rd day	2.68 ± 0.708	1 - 6

The average score of the least pain level of the patient on the 3rd day was the lowest.

Table 7. Average pain level (n = 149)

Average pain level	Mean ± Standard Deviation	Range
first 24 hours	5.70 ± 0.51	4 - 7
2nd day	4.71 ± 0.52	3 - 6
3rd day	3.69 ± 0.57	2 - 5

The average pain score on the 3rd day was the lowest compared to the first 24 hours and the 2nd day after surgery.

4. DISCUSSION

Fibroids are benign tumors of the uterus that can cause severe pain, bleeding, and infertility. Fibroids affect a woman's quality of life, as well as her fertility and obstetric outcomes. Fibroids affect about 35-77% of women of reproductive age, although the true rate is much higher because many fibroids may be asymptomatic [10]. Hysterectomy may be considered for women with large fibroids who do not intend to become pregnant, and those with fibroids greater than 10 cm in maximum diameter are more likely to be changed to laparotomy during laparoscopic hysterectomy [10].

Pain is one of the most common, uncomfortable, and frightening symptoms associated with surgery. It has been recognized that discomfort and fear of pain can lead to chronic pain in patients [11]. Severe pain after surgery increases the risk of chronic pain; Pain-induced immunosuppression slows wound healing, slows recovery, and increases the risk of postoperative infection; Sympathetic activation may predispose patients to adverse events such as myocardial ischemia or paralytic ileus; Psychological effects can lead to anxiety and depression; Limiting movement increases the risk of vascular occlusion, affecting wound care and rehabilitation [11].

In the study to evaluate the pain status of 149 patients undergoing urerine fibroids surgery, it was found that the average pain score at the time of assessment of the patient gradually decreased at the first 24 hours, 2nd and 3rd day. In which, the average pain score at the time of first 24 hours, day 2, day 3 assessment were 6.95 ± 0.35 (6-8); 6.81 ± 0.43 (5-7); 6.59 ± 0.69 (4-8) (Table 4).

The average score of the patient's highest pain level in the first 24 hours after surgery was the highest. In which, the most painful point at the time of the first 24 hours, day 2, day 3 assessment were 8.16 ± 0.49 (7-9); 7.22 ± 0.43 (6-8); 6.21 ± 0.42 (5-7), respectively (Table 5).

The average score of the least pain level of the patient on the 3rd day was the lowest. In which, the pain point the least at the time of first 24 hours, day 2 assessment were 7.42 ± 0.69 (3-8); 3.71 ± 0.68 (2-7) (Table 6).

The average pain score on the 3rd day was the lowest compared to the first 24 hours and the 2nd day after surgery. In which, the average pain score at the time of the first 24 hours, day 2, day 3 assessment 5.70 ± 0.51 (4-7); 4.71 ± 0.52 (3-6); 3.69 ± 0.57 (2-5) (Table 7).

Therefore, it can be seen that, in the first 24 hours, the patient had the highest pain level, then the pain gradually decreases on the 2nd and 3rd day. In the first 24 hours, the patient had the highest pain threshold. This is consistent with the Manyonda IT study that postoperative pain typically begins 1 hour after surgery and worsens within the next 5-7 hours. Some patients have difficulty controlling pain, but it usually subsides within the first 24 hours [12]. In the study of G Mwaka showed an overall postoperative pain rate of 55.3% after 24 hours and 34.7% after 48 hours; The rate of moderate to severe postoperative pain was 13% after 24 hours and 11.7% after 48 hours. Mild pain was reported in 44.6% after 24 hours and 22.9% after 48 hours [13].

Acute postoperative pain is a complex physiological response to tissue injury, organ strain, or disease. It is manifested by autonomic, psychological, and behavioral responses that lead to unpleasant, undesirable, and subjective emotions that

are specific to the patient. Poor pain control can counteract many of the beneficial effects of day care surgery and lead to the development of chronic pain [14]. Persistent pain after surgery is an unpleasant sensory and emotional experience after surgery. It is thought to be due to nerve injury and nerve cell changes in the central nervous system caused by intense pain in the first days after surgery. Inadequate pain control may delay the resumption of normal activities [15].

Therefore, medical staff should have appropriate pain relief measures for each patient in order to reduce pain for patients, reduce adverse events such as myocardial ischemia, reduce insomnia, reduce anxiety and depression for patients, and at the same time increasing the ability to recover movement after surgery for patients [16]. Measures to help relieve pain for patients are implementing pain medication orders intravenously or orally or rectally; At the same time, ensure the right nutrition for the patient, the right nutrition helps the patient to improve resistance, speed up wound healing, and at the same time reduce pain for the patient. An important issue to help the wound heal quickly and reduce pain for the patient is wound care, so the nurse needs to change the wound dressing to ensure the correct procedure. Nurses need to create a favorable environment for patients to rest. The nurses encourage, educated and guide the patients and their family to understand the condition as well as measures to support pain relief so that the patient can be assured of treatment. Effective postoperative pain control is essential for optimal postoperative recovery and reduced risk of infection [17].

5. CONCLUSION

The study determine the pain status among 149 postoperative uterine fibroid patients at the Obstetrics and Gynecology Hospital in 2022. From the results, we draw some conclusions that the average pain score at 24 hours of postoperative pain was higher than that of the patients with 48 hours and 72 hours after surger.

Average pain score at the time of first 24 hours, day 2, day 3 assessment were 6.95 ± 0.35 (6-8); 6.81 ± 0.43 (5-7); 6.59 ± 0.69 (4-8), respectively.

The most painful score at the time of the first 24 hours, day 2, day 3 assessment 8.16 ± 0.49 (7-9); 7.22 ± 0.43 (6-8); 6.21 ± 0.42 (5-7).

Average pain score at the time of first 24 hours, day 2, day 3 assessment were 5.70 ± 0.51 (4-7); 4.71 ± 0.52 (3-6); 3.69 ± 0.57 (2-5).

From this result, nurses need to apply a pain rating scale to manage pain after surgery because the advantage of the rating scale is to evaluate at 4 times, the time "the most painful", "least pain", "average pain" and "current pain" to minimize errors caused by pain medication. Nurses need to advise and support patients in pain management and pain relief such as counseling, encouragement, wound care as well as implementing pain medication orders.

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