

EFFORTS TO REDUCE THE SCALE OF PAIN POST LAPARATOMY OF OVARIAN CYST WITH HAND MASSAGE THERAPY

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Abstract. Ovarian cyst is the presence of a mass or lump in the ovary. There are several management options for ovarian cysts, one of which is the laparotomy surgical procedure. The laparotomy surgical procedure can cause postoperative pain, which if not addressed immediately, can lead to discomfort and hinder the healing process. The purpose of this study is to describe the implementation of hand massage therapy in reducing pain scale in post-laparotomy patients with ovarian cyst at Dr. Sardjito Central General Hospital Yogyakarta. This case study uses a descriptive method and focuses on a single adult woman aged over 20 years who has undergone laparotomy surgery for an ovarian cyst. The data collection method involves interviews and observations. The results showed that after receiving hand massage therapy for 3 days, it was able to assist pharmacological therapy in reducing the pain scale, with an average decrease of 2 scales by the third day. Hand massage therapy can support pharmacological therapy in reducing pain scale in post-laparotomy patients with ovarian cyst. it was able to assist pharmacological therapy in reducing the pain scale, with an average decrease of 2 scales by the third day. Hand massage therapy can support pharmacological therapy in reducing pain scale in post-laparotomy patients with ovarian cyst. it was able to assist pharmacological therapy in reducing the pain scale, with an average decrease of 2 scales by the third day. Hand massage therapy can support pharmacological therapy in reducing pain scale in post-laparotomy patients with ovarian cyst.

Keywords: Pain, Hand Massage Therapy, Laparotomy, Ovarian Cyst

1 INTRODUCTION

An ovarian cyst is a mass or lump on the ovary which is usually called an ovary, where the lump can enlarge over time, this lump is what is usually called a cyst. These cysts are benign, but sometimes cysts can develop and become malignant (Darmayanti & Nashori, 2021) (Albers et al., 2020). An ovarian cyst is the growth of a fluid-filled sac that grows and develops in the ovary (Hussein Ali, 2022) (Nurmansyah et al., 2019). An ovarian cyst is a large tumor which can be compared to a ball filled with fluid and develops in the ovary. Malignant ovarian cysts can turn into ovarian cancer (Sulistiyah & Keswara, 2023) (Baser & Mahajan, 2019).

The incidence of ovarian cysts according to Globocan, in 2018 of all women throughout the world, 295,414 of them were diagnosed with ovarian cysts, of which 4.4% of deaths were caused by malignant ovarian cysts or ovarian cancer. The incidence of ovarian cysts in Indonesia in the same year reached 13,310 cases, and 7,842 people or 3.8% of them died. The Indonesian health demographic survey explains that in 2018 the percentage of ovarian cysts in Indonesia reached 37.2%. (Khoiria et al., 2020). Data from Basic Health Research in (2018), Yogyakarta Special Region province is still the area with the highest cancer cases with a prevalence of 9.66%, and the highest type of cancer is ovarian cancer. According to data taken from the Medical Records In-

stallation at Dr. Sardjito Central General Hospital Yogyakarta, from January 2022 to January 2023 there were 79 cases of ovarian cysts in Bougenville 2 ward at Dr. Sardjito Central General Hospital Yogyakarta.

Management of ovarian cysts can range from further observation to surgical removal of the cyst, such as laparoscopy or laparotomy (Wolfman et al., 2020). This management can be determined based on the size of the cyst, the scale of the malignancy and the symptoms it causes (Dubuisson et al., 2020). The laparoscopic cyst removal method is recommended for cysts that are benign and small in size, whereas for cysts that are malignant and quite large in size, the laparoscopic cyst removal method is not recommended, apart from the limited movement of the tool, large cyst sizes are also wrong. one reason why this method is not recommended, the appropriate management for malignant and large cysts is the laparotomy method (Suryoadji et al., 2022). The cyst size criteria for the laparoscopic surgical procedure is 5-10 cm, while the cyst size for the laparotomy surgical procedure is >10 cm (Putri, 2015) (Wang & Li, 2021).

Laparotomy is a surgical procedure that has a high level of difficulty, where an incision is made in the lining of the abdominal wall to gain access to the problematic part of the organ (Vigneswaran et al., 2020) (Amelia & Saputri, 2020) . Laparotomy is a type of major surgery, where surgery is carried out in the abdominal area and causes quite long post-surgical wounds due to the incisions made during surgery (Li et al., 2021) (Ahsan et al., 2022). The post-surgical wound causes the nociceptors to react which transmit pain signals to the brain and cause a sensation of pain in the post-operative wound area (Rais & Alfiyanti, 2020). Nursing problems that can arise in post laparotomy patients are acute pain (Mastura et al., 2022).

Pain caused by post-operative wounds arises in several stages, starting from a stimulus to the wound, then the client begins to realize the feeling of pain that arises until he feels a sensation of pain in the wound which causes a response in the client both verbal and nonverbal. (Amelia & Saputri, 2020). The prevalence of post laparotomy patients with moderate to severe pain reached 41%, patients who experienced moderate to severe pain on day 0 were 30%, while on the first day it was 19%, and on the second day it was 16%. (Utami & Khoiriyah, 2020). The pain felt by a person if not treated immediately and appropriately can continue and cause neurogenic shock (Blumlein & Griffiths, 2022). Therefore, effective and efficient treatment is very necessary to overcome feelings of pain in patients (Safitri & Mualifah, 2022). In order to minimize the sensation of prolonged pain that can cause complications, and increase mobilization, pain management is needed for post-operative clients. Pain management can take the form of pharmacological or non-pharmacological methods. Pharmacological pain management involves the use of opiates (narcotics), non-opiates/NSAIDs (non-steroidal anti-inflammatory drugs), adjuvant drugs or co-analgesics. Non-pharmacological pain management is an effort to overcome or eliminate pain. There are various types of non-pharmacological methods that can be used, for example relaxation techniques and massage. Some massage techniques commonly used for post-operative patients are slow stroke back massage and hand massage (Udani et al., 2023) (Silpia et al., 2021).

Hand Massage is a relaxation technique by providing stimulation with massage on the hand area for 10 minutes to create a feeling of comfort and relaxation (Kudo & Sasaki, 2020) (Silpia et al., 2021). Hand Massage is a form of pain management by providing gentle massage and pressure until a feeling of comfort arises (Larasati & Oktaviani, 2021). Hand massage is a simple relaxation technique with a small cost and does not require special equipment. Apart from that, the relaxation technique using hand massage

has been recommended as an effective technique and is easy to apply by nurses independently for patients in the post-operative period (Simsek Yaban, 2019) (Amelia & Saputri, 2020).

Based on research conducted by Amelia & Saputri, (2020) The results showed that providing hand massage intervention to post laparotomy patients resulted in a significant difference in the patient's pain before and after being given hand massage therapy. According to research Silpia et al., (2021)The results showed that the respondents' pain frequency before being given hand massage therapy was on average at a severe pain intensity with a percentage of 53.3%. After being given hand massage therapy, the pain intensity felt by respondents became mild pain with a percentage of 86.7%. Based on the description above, the author is interested in conducting research on the implementation of hand massage to reduce the pain scale in post laparotomy patients with ovarian cysts at Dr. Sardjito Central General Hospital, Yogyakarta.

2 RESEARCH METHODS

This research was conducted at Dr. Sardjito Central General Hospital Yogyakarta to determine the implementation of hand massage therapy to reduce the pain scale in patients post laparotomy for ovarian cysts. The subject of this study was 1 adult female patient with post laparotomic pain problems. The inclusion criteria were adult female patients aged ≥ 20 years who were hospitalized at Dr. Sardjito Hospital, Bougenvile ward 2, diagnosed with ovarian cysts, post laparotomy patients on day 0, experiencing post-operative pain on a scale of > 3 and ≤ 6 . Exclusion criteria were post laparotomy patients with ovarian cysts who experienced musculoskeletal disorders in the hands.

3 RESULT AND DISCUSSION

3.1 Results

Overview of the Research Location.

Dr. Sardjito Central General Hospital is a general hospital located in Sinduadi Village, Kapanéwon Mlati, Sleman Regency, Special Region of Yogyakarta, just west of the Faculty of Medicine, Gadjah Mada University. Dr. Sardjito Central General Hospital Yogyakarta currently has the status of a Public Service Agency (BLU). It is a Technical Implementation Unit of the Ministry of Health, and is a national referral hospital. Also a class A teaching hospital (RSP).

The location used in this case study is the Bougenvile 2 room at Dr. Sardjito Hospital. Bougenvile 2 ward is in the inpatient installation 1 building on the 1st floor, it is one of the adult inpatient installations with 11 rooms, in rooms 1 to 9 there are 4 beds in each room, while in rooms 10 and 11 there are 6 beds in each each room. Bougenvile 2 Ward is a ward that specifically accepts adult patients with cases of gynecological disease. The most common cases found in the Bougenvile 2 room are ovarian cysts and cervical ca.

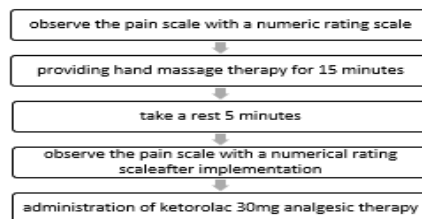
Characteristics of respondents.

Research subject in Bougenvile ward 2 Mrs. T, 69 years old, female, address in Tuksono hamlet, Sentolo District, Kulon Progo Regency, occupation is housewife. The patient was treated at Dr. Sardjito Central General Hospital Yogyakarta with a medical diagnosis of ovarian cyst post laparotomy on day 0. The complaint that was felt was that the patient said he felt pain in the post-operative wound, pain like being stabbed in the abdomen and radiating to the back, the pain increased when coughing and moving, the NRS (Numeric Rating Scale) pain scale was 5. The patient complained of difficulty sleeping and often woke up because of the pain she felt. Blood pressure examination results were 132/67 mmHg, respiration rate 20x/minute, temperature 37.3°C, pulse 84x/minute. The patient received drug therapy with cefotaxime IV injection 1gr/12 hours, and ketorolac IV injection 30mg/8 hours, namely every 09.00, 16.00, and 24.00. The patient received non-pharmacological therapy, namely hand massage relaxation therapy.

Action Implementation Procedure.

The procedures for implementing hand massage relaxation therapy on March 14 2023 – March 16 2023 carried out by researchers can be depicted at fig. 1 as follows

Fig. 1. Implementation Procedure steps



This research describes non-pharmacological therapy to assist the therapy program in reducing the pain scale in Mrs. T. The process of implementing hand massage relaxation therapy is carried out 1 to 3 times a day for 3 days. The first thing to do is explain the purpose and procedures for implementing hand massage relaxation therapy, then the patient or family is given the opportunity to accept or refuse to participate in this case study. After the patient agrees, the patient signs the consent form. The procedure before hand massage relaxation therapy is to observe the general condition and the pain scale felt by the patient using the Numeric Rating Scale pain meter. Patients are given hand massage therapy for 10-15 minutes in accordance with standard operating procedures. During this hand massage relaxation therapy, Researchers can pay attention to the patient's response. During hand massage relaxation therapy, the patient will feel relaxed and comfortable. After giving hand massage relaxation therapy, the patient is then rested for 5 minutes. After resting, the patient then takes a second pain scale measurement to see the results of the hand massage therapy. The target of this implementation is to reduce the pain scale in patients after hand massage therapy

Results of Nursing Action Procedures.

Table 1. Results of the Pain Scale Observation Sheet

Days	Implementation	Scale of pre-implementation	Scale of post-implementation
Day-0	1 st implementation	Scale 5	Scale 4
	2 nd implementation	Scale 4	Scale 3
Day-1	3 rd implementation	Scale 4	Scale 2
	4 th implementation	Scale 3	Scale 2
	5 th implementation	Scale 3	Scale 1
Day-2	6 th implementation	Scale 2	Scale 1

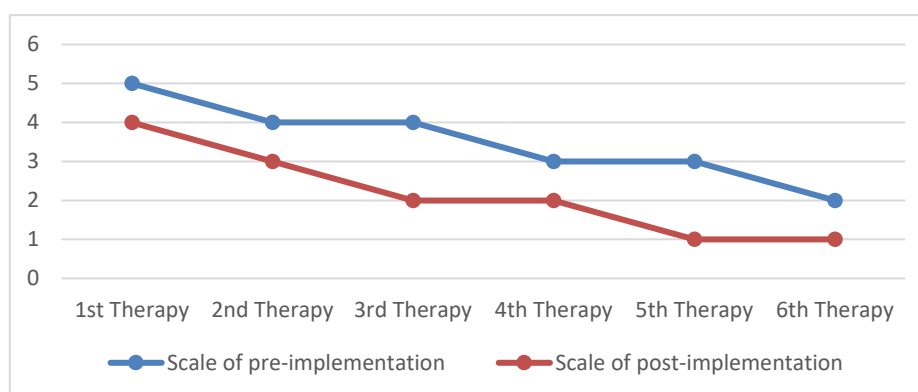


Fig. 2. Pain Scale Before and After Hand Massage Therapy

3.2 Discussion

Based on the results of observations of providing hand massage relaxation therapy as depicted in table 1 and fig. 2 which was carried out for three days and adapted to the research objectives, the discussion of the results of this research is described as follows:

Mrs. T's current condition is a patient with a medical diagnosis of post laparotomy ovarian cyst, there is a mass on Mrs. T's left ovary which causes pain and enlargement of the abdomen. The treatment used to remove the mass in Mrs. T's left ovary was the TAH BSO (Total Abdominal Hysterectomy dan Bilateral Salpingo Oophorectomy) laparotomy surgical procedure. According to (Fatimah, 2019) Post-laparotomy patients will definitely feel pain in the wound which is very disturbing to the patient's comfort.

This is in line with the complaint that Mrs. T is currently feeling, namely that the patient said she felt pain in the post-operative wound which caused Mrs. T to feel uncomfortable and have difficulty sleeping.

Mrs. T was a patient who met the inclusion and exclusion criteria in this study who was then given hand massage relaxation therapy. On the first day of hand massage relaxation therapy, the results of the pain scale before being given hand massage therapy were scale 5 (moderate pain) and after being given hand massage relaxation therapy twice, the pain scale decreased to scale 3 (mild pain). Hand massage therapy for post-laparotomy patients can reduce pain caused by post-operative wounds in patients. The positive feelings that arise during attentive and empathetic hand massage therapy can strengthen the effect of massage to reduce the pain scale (Amelia & Saputri, 2020). Mrs. T said that before being given hand massage relaxation therapy, she felt anxious and uncomfortable due to feelings of pain in the post-operative wound. After being given hand massage therapy, Mrs. T felt more relaxed and comfortable so that by giving hand massage therapy, the patient experienced a decrease in the pain scale. on the first day it was 2 on the scale.

The results of measuring the pain scale on the second day before the hand massage relaxation therapy was carried out were scale 4 (moderate pain). After being given hand massage therapy three times on the second day, there was a decrease to scale 1 (mild pain). The application of hand massage therapy on the third day also saw a decrease before and after the hand massage relaxation therapy was given from a scale of 2 to a scale of 1. When the hand massage relaxation therapy was applied, the patient felt happy and comfortable. This is in line with theory (Nur Fadilah & Astuti, 2018) that hand massage relaxation therapy can have a pleasant effect on the patient, if the patient perceives massage as a stimulus to relax, then a relaxation response will appear, this relaxation response can reduce anxiety caused by feelings of pain so that it can prevent an increase in pain intensity. (Larasati & Oktaviani, 2021) also revealed that skin stimulation from hand massage therapy can increase serotonin and dopamine hormones so that sympathetic nerve activity decreases and the client's body becomes more relaxed.

Relaxation hand massage therapy is a therapy that can cause feelings of comfort and relaxation by providing a stimulus to the tissue under the skin on the palms (Haniyah & Adriani, 2020). On theory (Silpia et al., 2021) stated that there is a heart point on the hand, which if massaged will have an effect on the smooth flow of blood. In the case of patients with post laparotomy, smooth blood flow is very important to speed up healing and reduce the intensity of pain. The purpose of hand massage is to relieve stress, provide a relaxing effect, improve blood circulation and reduce the intensity of pain by massaging the hands, this is because massage on the hands plays an important role in providing relaxation to reduce pain by providing a stimulus with massage that can inhibit pain. Hand massage can increase the hormone serotonin and dopamine hormone which causes the sympathetic nerves to decrease and gives the client a feeling of relaxation (Nur Fadilah & Astuti, 2018).

The results of this case study are in line with the research conducted (Silpia et al., 2021) with the title the Effectiveness of Hand Massage Therapy in Reducing Pain Intensity Among Patients With Post-Laparotomy Surgery, research results showed that hand massage relaxation therapy was proven to reduce the pain scale in post-laparotomy patients. Apart from that, in other research (Amelia & Saputri, 2020) Regarding the Effectiveness of Hand Massage on the Pain Scale in Post-Laparotomy Surgery Patients in Hospitals. DR. Reksodiwiryo Padang showed the results that hand massage relaxation

therapy was effective in helping the therapy program to reduce the pain scale in patients post ovarian cyst laparotomy surgery. So that post laparotomy patients with ovarian cysts can undergo management to reduce the pain scale.

4 CONCLUSION AND RECOMMENDATION

4.1 Conclusion

It can be concluded that this case study can illustrate the application of hand massage therapy as an effort to reduce the pain scale in patients post laparotomy for ovarian cysts. Before being given the application of hand massage relaxation therapy, the patient was observed on a pain scale showing moderate pain intensity with a pain scale of 5. After being given hand massage relaxation therapy for three days, hand massage relaxation therapy was able to help pharmacological therapy in reducing the pain scale, namely an average of 2 to The third day

4.2 Suggestion

Based on the results of the case studies that have been carried out, there are several suggestions including:

- Share the development of nursing science and technology
Hand massage relaxation therapy can be used as an alternative non-pharmacological therapy as an effort to assist medical therapy in reducing the pain scale in patients post laparotomy for ovarian cysts.
- For the community
Hand massage relaxation therapy is a non-pharmacological therapy that can be applied in daily life as a companion to existing pharmacological therapies
- It is hoped that future researchers should involve more respondents so that the results obtained are more diverse and can be compared.
- It is hoped that the research time can be longer so that the implementation provided can be carried out optimally
- It is hoped that future researchers should carry out research on hand massage side by side with analgesics but within the appropriate time period so that the results obtained do not run the risk of being biased between the results of hand massage therapy and analgesic therapy

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