

Provision of Warm Compress with Warm Water Zack (WWZ) to Reduce Pain in Post Op Benigna Hyperplasia Prostate (BPH) Patients

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Abstract—Postoperative pain in postoperative patients Benigna Prostate Hyperplasia (BPH) is a problem for patients and is the most disturbing thing, so nursing intervention is needed to reduce pain. Warm compresses with Warm Water Zack (WWZ) is one of the interventions done non-pharmacologically to reduce pain in BPH postoperative patients. The implementation of warm compress management with WWZ in the field has not been fully carried out in overcoming pain, and more often uses pharmacological therapy in reducing postoperative pain. **Objective:** This study aims to determine the effect of giving warm compresses with WWZ to the reduction of pain in BPH post op patients on day 1 in the inpatient room at Sultan Hadlirin Hospital in Jepara. **Method:** This type of research is Quasy-experiment with a pre-test - post-test with control group approach. The sample in this study were 30 respondents using a total sampling technique. The statistical tests used are dependen t tests and independent t tests. **Results:** The results of the study using statistical tests with dependent and independent t tests obtained p value of 0,000 so that it can be concluded that there was a significant effect (p value 0,000 <0.05) giving warm compresses with hot bladder to postoperative pain on BPH day to 1 in the inpatient room at Sultan Hadlirin Jepara Hospital. **Conclusion:** The conclusion of this study is the effect of giving warm compresses with warm water zack on pain in post op patients on day 1 in the ward of Sultan Hadlirin Hospital Jepara.

Keywords—Warm Compress, Warm Water Zack, Hyperplasia

I. INTRODUCTION

Benign prostate hyperplasia (BPH) is a progressive enlargement of the prostate gland, is benign due to hyperplasia of some or all prostate components which results in the obstruction of the prostatic urethra.[1] Research results according to Rosa (2017) shows data that as we get older the higher the BPH incidence rate, this is the same as the events in Indonesia where 50% of BPH events are experienced by men aged 60-70 years and 80% experienced by men aged 80 years.[2] Pain is an unpleasant sensory and emotional experience resulting from actual or potential tissue damage [3] There are various kinds of pain experienced by patients in the hospital and most of the causes of patient pain are caused by surgery or surgery, including acute pain and can hinder the patient's healing process because it inhibits the patient's ability to be actively

involved in the healing process and increases the risk of complications due to immobilization so rehabilitation can be delayed and [4].

Postoperative pain is often a problem for patients and is the most disturbing thing, so nursing intervention is needed to reduce pain. One form of intervention is a warm compress. [5] The goal of pain management or intervention is to change the client's perception of pain, change pain behavior, and give the client a greater sense of control. [6]. One of the pain management measures that can be done is by giving a compress. Pain management with compresses is of two kinds namely cold compresses and hot compresses. The use of hot compresses has the advantage of increasing blood flow to an area and possibly reducing pain. [7] In addition to warm compresses can be done near the location of pain, compressing near the location of pain tends to give the best results. [8] The effects of warm and cold compresses provide different physiological responses. The effect of warm compresses is to increase blood flow to the affected area. Warm compresses in addition to relieving pain are also for blood circulation so as to accelerate wound healing. [9] The effects of cold compresses can cause vasoconstriction reflexes. Cells are unable to receive adequate blood flow and nutrition, causing ischemia. This begins with reddish skin followed by blueness and stiffness due to cold, some types of pain that feel like burning.[10]

Based on a preliminary survey conducted by researchers in September 2017 by observing 10 patients about the pain scale of post-operative patients day 1 as measured using the Hayward pain scale in the inpatient room at RSI Sultan Hadlirin Jepara obtained from 10 post op patients experiencing moderate pain as much as 6 patients while severe pain as many as 4 patients. Of the postoperative patients, pain management or management is performed by administering analgesics, so compressing with WWZ can be an alternative for pain management and can reduce the side effects of drugs on the body.

II. METHODS

This research is a Quasy-experiment with a pre-test - post-test with control group approach. The population in the study were BPH postoperative patients on day 1 who were hospitalized in Sultan Hadlirin Hospital Jepara during

October and November 2017 The sample in this study was 30 respondents using total sampling technique. The statistical tests used are dependent t tests and independent t tests.

III. FINDING AND DISCUSSION

TABLE I. AGE DISTRIBUTION OF RESPONDENTS

Variable	Control		Intervention		Total	
	f	%	f	%	f	%
Age						
50-65	6	40,0	7	46,7	13	43,3
66-80	8	53,4	5	33,3	13	43,3
> 80	1	6,6	3	20,0	4	13,4

Table I The age distribution of respondents between the intervention and control groups was the majority of those aged 50-65 years as many as 7 people (46.7%) and a small portion > 80 years as many as 3 people (20.0%) in the

intervention group. In the control group, most respondents aged 66-80 years were 8 people (53.4%) and a small number > 80 years were 1 person (6.6%).

TABLE II. POSTOPERATIVE PAIN DAY 1 BEFORE WARM COMPRESS WITH WWZ IN THE INTERVENTION GROUP AND CONTROL GROUP

Variable	Intervention		Control		Total	
	f	%	f	%	f	%
Pain						
Moderate Pain	8	53,4	6	40,0	14	46,6
Severe Pain	7	46,6	9	60,0	16	53,4

Table II about the respondent's pain in the intervention group it was found that the majority of moderate pain levels

were 8 respondents (53.4%), whereas in the control group most of the severe pain levels were 9 respondents (60.0%).

TABLE III. POSTOPERATIVE PAIN DAY 1 PAIN AFTER COMPRESS WITH WWZ IN THE INTERVENTION GROUP AND CONTROL GROUP

Variable	Intervention		Control		Total	
	f	%	f	%	f	%
Pain						
Mild pain	9	60,1	2	13,2	11	36,3
Moderate Pain	5	33,3	6	40,2	11	36,3
Severe Pain	1	6,6	7	46,6	8	27,4

Based on table III about the respondent's pain in the intervention group it was found that the majority of mild pain levels were 9 respondents (60.0%), whereas in the control

group the majority of severe pain levels were 7 respondents (60.0%).

TABLE IV. COMPARISON OF PAIN BEFORE AND AFTER GIVING WARM COMPRESSES WITH WWZ IN THE INTERVENTION GROUP AND THE CONTROL GROUP

Pain scala	± SD		Pvalue (*)
	Intervention (n=24)	Control (n=24)	
Pre	18,16 ± 5,52	18,12±5,51	0,979
Post	29,12 ± 6,73	20,08±5,66	0,000*
P value (**)	0,000**	0,103	

*independent t-test, **paired t-test

Based on table IV The results showed that before being given a WWZ compress in the intervention group and the control group there were no significant differences in the mean pain 18.16 ± 5.52 there was a significant difference in

pain after being given a WWZ compress in the intervention group compared with the control group. This is indicated by the results of statistical tests with a p value of 0,000. There were no significant differences in the initial and final pain

measurements in the control group. This is indicated by the value of $p \text{ value} > 0.05$.

IV. DISCUSSION

The results showed that the majority of respondents' age was in the age range of 66-80 years, as many as 8 (53.5%). According to Purnomo (2011) There are microscopic changes in the prostate of men aged 30-40 years. If these microscopic changes develop, anatomic pathologic changes will occur in men aged 60 years, and the incidence rate is around 50%, for those aged > 60 years. [11]. Age is very closely related to the aging process, increasing age will increase the balance of estrogen and estrogen that can occur at the age of 50 years and over. [12] These results are in line with the results of a study conducted by Elsy 2017 which states that an increase in the number of BPH patients occurs at the age of > 60 years [1]. The results of this study are also in accordance with Kurniajati (2013) which explains that age is one of the factors that can affect one's health, in developing countries most people with BPH are aged between 60 to 80 years due to the aging process. [13]. The results showed that pre day 1 before warm compresses were carried out with WWZ and post days 1 to day 4 after warm compresses were carried out with WWZ in the intervention group then evaluation was carried out every day for a reduction to obtain statistical tests with dependent and independent t tests obtained values $p \text{ value } 0,000$ so that it can be concluded that there is a significant effect ($p \text{ value } 0,000 < 0.05$) meaning that there is a change in initial pain that is greater than the final pain after a warm compress. This proves that warm compresses given for 2x20 minutes with a temperature of $50^\circ \text{C} - 60^\circ \text{C}$ by giving every 20 minutes to replace hot water in a hot water bag can provide the effect of reducing pain in postoperative wounds felt by patients with BPH. This proves that warm compresses can dilate blood vessels and increase blood flow around the area that is experiencing pain, making it easier to enter the blood vessels. Heat or warm stimulation techniques can temporarily relieve pain by giving warm compresses with WWZ to postoperative pain BPH day 1 in the inpatient room at Sultan Hadlirin Hospital Jepara.

Physiological pain arises when a tissue is injured or damaged resulting in the release of materials that can stimulate pain receptors such as serotonin, histamine, potassium ions, bradykinin, prostaglandins, and substance P which will cause pain responses and can also be caused by mechanical stimuli such as tissue swelling, which suppresses pain receptors.[3] According to Ye Ling (2018). the process of delivering pain transmission is channeled to the central nervous system by 2 fiber systems (fibers), including: 1). A - delta ($A\delta$) Bermielin fibers with a diameter of 2 - 5 m that deliver at a speed of 12 - 30 m / sec, also called test pain and are felt in less than one second, and have a localization that is clearly felt like sharp pierced near the surface of the skin. 2). C fibers, are fibers that are not myelinated with a diameter of 0.4 to 1.2 m / sec, also called slow pain felt for 1 second or more, are dull, throbbing or burning pain [14].

Ways to manage postoperative pain in BPH patients to avoid recurrence or at least reduce the intensity of pain felt, ways to reduce pain can be by pharmacology and

nonpharmacology. [15]. Pharmacological efforts can use nonopiates including NSAIDs such as aspirin and ibuprofen. Non-opiates reduce pain by working at the end of the peripheral nerves in the wound area and reduce the level of inflammation produced in the wound area. Analgesic opiates include opium derivatives such as morphine and codeine.[16]. Narcotics relieve pain and give a feeling of euphoria. Opiates also cause nausea, vomiting, constipation, and respiratory depression and must be used with caution in clients with respiratory problems. [17] Analgesic adjuvant is a drug developed for purposes other than pain relief but this drug can reduce certain types of chronic pain in addition to doing its primary work. [18]Non-pharmacological efforts that can be done to reduce joint pain are by taking cold and hot / warm compresses in addition to reducing pain sensations as well as improving the healing process of damaged tissue. [19] Non-pharmacological efforts that can be done to reduce joint pain are by taking cold and hot / warm compresses in addition to reducing pain sensations as well as improving the healing process of damaged tissue.. [20]. Warm compresses in addition to providing the effect of overcoming or relieving pain sensations, this technique can also provide physiological reactions to increase the inflammatory response, increase blood flow in the tissues. [21]. The therapeutic effect of giving warm compresses increases blood flow to injured body parts, increases nutrient delivery and waste disposal, reduces venous congestion in injured tissue, decreases blood viscosity and increases delivery of leukocytes and antibiotics to the injured area, decreases muscle tension so can increase muscle relaxation and reduce pain due to spasms or clots, increase tissue metabolism, increase blood flow, provide local warmth [22].

V. CONCLUSION

The results of the study using statistical tests with dependent and independent t tests obtained $p \text{ value}$ of 0,000 so that it can be concluded that there was a significant effect ($p \text{ value } 0,000 < 0.05$) giving warm compresses with hot bladder to postoperative pain on BPH day to 1 in the inpatient room at Sultan Hadlirin Jepara Hospital. Conclusion: The conclusion of this study is the effect of giving warm compresses with warm water zack on pain in post op patients on day 1 in the ward of Sultan Hadlirin Hospital Jepara.

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