Reducing Pain on A Severe Scale After Caesarean Section Surgery With LI 4 and HT 7 Acupressure

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Pain after caesarean section surgery is a physiological symptom that is usually experienced by postpartum mothers. This pain can be treated in various ways, including acupressure. The combination of giving acupressure at points LI 4 and HT 7 can reduce the pain scale of post-operative and post-operative mothers. Objective: To determine the effect of LI 4 and HT 7 acupressure on reducing the pain scale after SC. Method: This research is a quasi-experimental research with a one-group pretest and posttest design. The sample for this research is 23 postpartum mothers with a consecutive sampling technique. The data collection technique uses a list of questions or a questionnaire with NRS. The accumulated data will be analyzed using the paired T-test. The results of the paired T-testshowed a p-value = 0.000, meaning that there was a significant difference in the reduction in pain scale before and after the intervention. There is an effect of giving acupressure points LI 4 and HT 7 on reducing the pain scale after SectioCesarea surgery.

Keywords : Postoperative pain, Sectio Caesarea, Acupressure

INTRODUCTION

One of the surgical procedures to remove a baby involves making an incision in the lining of the abdomen and uterus to remove the baby, which is better known to the public as SectioCaesarea(SC).(Ayuningtyas, 2018) . According to the latest research by the World Health Organization (WHO), the incidence of CS operations is increasing globally and is now more than one in five births (21%). Research shows this incidence will increase over the next decade, with an estimated nearly one-third (29%) of all births that may occur via CS by 2030.

Based on survey data in East Java Province, the number of SC births in 2019 was 124,586 out of a total of 622,930 or around 20% of all births (RI Ministry of Health, 2020). The results of a study from the medical records of RSU Al Islam HM Mawardi show that data on mothers giving birth via SC surgery in 2020 was 53%, in 2021 it was 68% and in 2022 it was 78%. Over the last three years, the number of cesarean births has continued to increase every year, with a peak occurring in 2022 at 78% or 825 out of 1,054 births (Lusia et, 2019) .

The main source of patient complaints that need to be treated immediately after SC is pain from surgical incisions so that patients can recover functionally quickly to optimize the early stages of mother-child interaction (Azanu et al., 2022) . The impact of pain after SC surgery affects vital signs, namely heart rate, blood pressure and increased breathing frequency. Clients are often found to be moaning, furrowing their eyebrows, biting their lips, anxious, immobilized, experiencing muscle spasms, and making movements to protect their body parts so they tend to remain silent, closed off from society, and only focus on activities that can reduce their pain (Redho et al., 2019) . In this regard, pain control is very necessary to minimize more serious complications in patients after SC surgery.

Acupressure is a therapy carried out by applying pressure to various points on the surface of the body so that energy circulation is balanced in cases of pain symptoms such as in LI 4 and sedative points in HT 6 (Nani et al., 2015) . This acupressure technique can restore the body's balance pattern (homeostasis) by having smooth qi waves at meridian points, which can increase the body's stamina which can prevent the occurrence of disease (Khalil et al., 2019) .

METHODOLOGY

This type of research is quasi-experimental research using a one-group pretest and posttest design. The population in this study was post-SC surgery patients who met the criteria for experiencing post-SC pain, aged 20 - 35 years, did not experience postpartum emergencies, received subarachnoid block (SAB)

anaesthesia, cooperative patients, fully conscious patients, and were willing to be respondents. The sample size required in this study was 23 respondents taken by consecutive sampling.

Acupressure at points LI4 and HT 6 60 times was given once 4 hours after SC surgery and on the second day it was given once when the respondent started to mobilize. The research tools used were the respondent's informed consent sheet, the NRS pain questionnaire (numerical rating scale), and the data collection technique used a list of questions or a questionnaire with the NRS. The pain scale data that has been taken will be analyzed using software in the form of SPSS for Windows version 25.0 and will be tested using the paired T-test.

The data collected will be described using univariate analysis to explain each characteristic of each research variable which includes parity and pain scale before intervention. Then, bivariate analysis was used to determine the influence and changes in pain complaints. In this research, data collection was carried out at RSU Al Islam HM Mawardi from December 2023 to January 2024.

RESULT AND DISCUSSION

In this study, the data was divided into two, namely general data in the form of parity and average pain before intervention and specific data on the pain scale.

Table 1. Distribution of Respondent Characteristics

Variable	N	%
Parity		
- Primipara	5	22
- Multiparous	18	28
- Grandemultiparous	0	0
Total	23	100

Based on table 1, it shows that the parity of respondents is (22%) primipara and (76%) multipara.

Table 2. Frequency distribution of pain levels of post-partum mothers with a history of SC before and after endorphin massage

Pain Intensity	Before acupressure		After acupressure		P value
	F	%	F	%	
Mild pain	2	9 %	3	13%	
Moderate pain	4	17%	16	70%	
Severe pain	17	74%	4	17%	0,000
Total	23	100%	23	100%	

Based on Table 2, the pain scale before the acupressure was done was mostly at a severe level (74%), whereas after the acupressure the pain was mostly moderate (70%).

Table 3. Analysis of Reduction in Pain Scale Pre-Post Test in Acupressure Group

Variable	Pre-test	Post-test	t	P
	Mean ± SD	Mean ± SD		
Acupressure	7.09 ± 1.832	5.09 ± 1.564	12,987	0,000

Paired T-test (p<0.05)

According to the paired T-test, the p-value = 0.000, which shows that there is a significant difference in the reduction in pain scale between before and after giving acupressure. SectioCesarean (SC) deliveries often have side effects, one of which is pain in the surgical scar. Post-SC pain usually appears due to the loss of the anaesthetic effect. This research shows the effectiveness of acupressure for pain relief. When the body feels tense and stressed, the body will produce endorphins which cause interference obstruction in nerve fibres, thus providing the effect of reducing pain. Stimulation given to the skin, for example by massage or acupressure, can increase endorphin levels, which has the effect of reducing pain (Anjelia, 2021) .

Acupressure can stimulate the activation of the somatosensory cortical network including the associated cortex and brain areas such as the insula, and thalamus, which represent the sensory discriminative dimension of pain (Rahmayani & Machmudah, 2022) . Research conducted by Dian (2016) showed that acupressure therapy was more efficient in dealing with pain after SC surgery. Research conducted by Akgün (2020) showed that the acupressure group experienced the lowest level of pain after caesarean section compared to the placebo group and the control group (Baroroh et al., 2021) .

The acupressure mechanism can be explained through a holistic theory, where pressing acupressure on several points on the body can channel energy through the meridian flow, thereby providing local effects such as reducing pain in the body (Yudiatma & et al, 2021) . Acupressure energy can also help reduce and manage excessive stress. Acupressure can reduce the body's nervous tension and can strengthen an individual's stress resistance due to the way acupressure works on the autonomic nervous system (Ibu et al., 2024) .

The combination of administering acupressure points LI 4 and HT 7 can reduce pain intensity. Shenmen (HT 7) is one of the Shu and Yuan points of the heart meridian. Massage at the Shenmen point (HT 7) using tonification or strengthening techniques can strengthen the work of the heart and reduce pain

(Prayuni et al., 2018) . Apart from that, the Hegu point (LI4) has the function of being a strong reliever and antispasmodic, so it is good to use for unhealthy conditions, both in meridians and organs, specifically in the intestines, stomach and uterus (Revianti & Yanto, 2021) .

This situation is also supported by research conducted by Listiyani (2022) at Puri Bunda Hospital, Denpasar in 2022, there were differences in the pain scale before and after intervention by administering HT 7 and LI 4 acupressure to mothers post caesarean section [20]. The choice of acupressure for non-pharmacological therapy to reduce the pain that arises can be applied to every client who complains of pain, especially complaints of post-operative pain, headaches, labourpain, and disminor pain.

CONCLUSION

According to the discussion that has been presented, it can be concluded that acupressure intervention is more effective in helping reduce pain after SC surgery compared to lemon aromatherapy. However, there is a weakness in this research, namely that there is no control group as the main comparison. It is recommended that future researchers consider having a control group. The suggestion from this research is that acupressure can be applied in pain management after SC surgery because this procedure carries minimal risk and is non-invasive.

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