

PERICARDIAL ACUPRESSURE (P6) TO REDUCE NAUSEA AND VOMITING FOR PREGNANT WOMEN

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ABSTRAK: AKUPRESUR PERICARDIUM (P6) UNTUK MENGURANGII MUAL MUNTAAH IBU HAMIL

Latar Belakang: Mual dan muntah kehamilan adalah komplikasi kehamilan yang paling umum terjadi pada 85% ibu hamil . Tingginya kadar hormon hCG pada kehamilan diduga menjadi penyebab mual dan muntah. Akupresure merupakan perkembangan terapi pijat yang berlangsung seiring dengan perkembangan ilmu akupuntur. Akupresur pada titik nerikardium 6 dapat mengurangi mual dan muntah karena dari stimulasi tersebut dapat meningkatkan pelepasan beta-endorphin.

Tujuan : Untuk mengetahui pengaruh akupresu P6 untuk megurangi mual dan muntah pada ibu hamil..

Metode: Penelitian ini merupakan penelitian pra eksperimen dengan menggunakan desain penelitian one group pre-post-test design. Pendekatan yang digunakan adalah cross sectional. Penelitian ini dilakukan di Klinik Taman Sari 6 Kota Pekanbaru. Populasi dalam penelitian ini adalah seluruh ibu hamil yang melakukan pemeriksaan kehamilan di klinik Taman Sari bulan Februari – Juli 2022. Teknik pengambilan sampel menggunakan total sampling yang berjumlah 25 orang. Penelitian dilakukan dengan cara kunjungan rumah, selanjutnya dilakukan *informed consent* dan *pre-test* setelah itu di lakukan akupresure dalam waktu 3 hari pada pagi hari dan setelah hari ke 3 dilakukan *post-test*. Instrumen dalam penelitian ini Lembar kuesioner *Pregnancy- Unique Quantification of Emesis-24* (PUQE 24). Analisa data secara univariat dan bivariate dengan Uji T-Test.

Hasil : Hasil penelitian didapatkan rata-rata frekuensi mual dan muntah sebelum diberikan akupresur pada titik perikardium 6 adalah sebesar 2.56 (SD 0.51) dan sesudah diberikan akupresur pada titik perikardium 6 terjadi penurunan frekuensi mual dan muntah dengan nilai rata-rata sebesar 2,04 (SD 0.35). Hasil Uji Two Sample T Test menunjukkan bahwa ada pengaruh akupresur pada titik perikardium 6 ($p=0,000$).

Kesimpulan: ada pengaruh akupresu P6 untuk megurangi mual dan muntah pada ibu hamil..

Saran : Untuk menjaga kehamilan berjalan denga naman, ibu hamil tidak boleh mengesampingan keluhan yang dirasakan termasuk mual-dan muntah karena dapat menjadi masalah serius. Akupresur merupakan pengobatan non-invasif yang baik diambil oleh ibu hamil untuk mengurangi mual dan muntah.

Kata Kunci : mual, muntah, akupresur P6, ibu hamil.

ABSTRACT

Background: Nausea and vomiting during pregnancy are the most common pregnancy complications that occur in 85% of pregnant women. High levels of the hormone hCG in pregnancy are thought to be the cause of nausea and vomiting. Acupressure is the development of massage therapy that goes hand in hand with the development of acupuncture. Acupressure at the point of pericardium 6 can reduce nausea and vomiting because the stimulation can increase the release of beta-endorphin.

Purpose: To determine the effect of P6 acupressure to reduce nausea and vomiting in pregnant women.

Method: This research is a pre-experimental study using a one-group pre-post-test research design. The approach used is cross-sectional. This research was conducted at Taman Sari 6 Clinic, Pekanbaru City. The population in this study were all pregnant women who had a pregnancy check-up at the Taman Sari clinic from February to July 2022. The sampling technique used a total sampling of 25 people. The instrument in this study was the *Pregnancy- Unique Quantification of Emesis-24* (PUQE 24) questionnaire. Data analysis was univariate and bivariate with the T-Test.

Results: The results showed that the average frequency of nausea and vomiting before being given acupressure at the pericardium 6 was 2.56 (SD 0.51) and after being given acupressure at the pericardium 6 there was a decrease in the frequency of nausea and vomiting with an average value of 2.04 (SD 0.35). The results of the Two Sample T Test showed that there was an effect of acupressure on the 6th pericardial point ($p=0.000$).

Conclusion: there is an effect of P6 acupressure to reduce nausea and vomiting in pregnant women.

Suggestion: To keep the pregnancy going with the name, pregnant women should not put aside the complaints they feel, including nausea and vomiting because they can be a serious problem. Acupressure is a non-invasive treatment that is good for pregnant women to reduce nausea and vomiting.

Keywords: Nausea, Pregnant Women, P6 Acupressure, Vomiting,

INTRODUCTION

Nausea and vomiting during pregnancy are the most common pregnancy complications that occur in 85% of pregnant women (Saber et al., 2013). This problem begins around the 4th week of gestation and usually continues until the 16th week (Rad et al., 2012). The etiology of nausea and vomiting in pregnancy is not known with certainty, it can be caused by hormonal, immunological, and anatomical changes (Saber et al., 2013). High levels of the hormone hCG in pregnancy are thought to be the cause of nausea and vomiting that act on the chemoreceptor trigger zone in the vomiting center in the brain, namely the medulla. Its production begins early in pregnancy, around the day of implantation (Wandira, 2016).

The most severe form of nausea and vomiting accompanied by complications such as dehydration or metabolic deficiency (weight loss, electrolyte deficiency, or malnutrition), will form Hyperemesis Gravidarum (Fejzo et al., 2019). The adverse effects of severe vomiting on the fetus are premature birth and low birth weight (LBW) (Anisa et al., 2014; Mahmoud et al., 2013). While the impact of nausea and vomiting in pregnant women is the most common is anemia (Sari, S. I. P., Noviani, A., Masdiputri, S. N., & Inayah, 2017).

Treatment to overcome nausea and vomiting in pregnant women can be done with pharmacological and non-pharmacological therapy (Santi, 2013). Pharmacological therapy is carried out by administering antihistamines, antiemetics, and corticosteroids. While non-pharmacological therapy is carried out using diet regulation, and emotional support, and can also use acupressure and aromatherapy (Saber et al., 2013; Sulistiarini et al., 2018). Many pregnant women are reluctant to take pharmacological therapy due to fear of side effects, so they prefer to use Complementary and Alternative Medicine (CAM) therapy (Hollyer et al., 2002; Rad et

al., 2012). Acupressure is the development of massage therapy that goes hand in hand with the development of acupuncture. The technique in this therapy uses fingers instead of needles but is carried out at the same points as in acupuncture therapy (Munjiah et al., 2015; Sulistiarini et al., 2018). With similar therapies, acupressure is more attractive as a safe and non-invasive alternative (Adlan et al., 2017). Based on this description, researchers are interested in examining pericardial acupressure to reduce nausea and vomiting in first-trimester pregnant women. The purpose of this study was to determine the effect of pericardial acupressure on pregnant women in the first trimester. In this study researchers used more samples to get better results. Researchers and enumerators have received training and are certified to carry out this research.

MATERIALS AND METHODOLOGY

This research is pre-experimental research using a one-group pre-post-test design. The approach used is cross-sectional. This research was conducted at Taman Sari 6 Clinic, Pekanbaru City. The population in this study were all pregnant women who had a pregnancy check-up at the Taman Sari clinic from February to July 2022. The sampling technique used a total sampling technique. The sample in this study were all 25 pregnant women with TM I who experienced nausea and vomiting. The instrument in this study was the Pregnancy- Unique Quantification of Emesis-24 (PUQE 24) questionnaire. The data collection technique was carried out by giving a pre-test by filling out PUQE 24 then giving an intervention and a post-test by filling in PUQE 24. Data analysis was univariate and bivariate with the T-Test.

RESULT AND DISCUSSIONS

The results obtained are presented in the tables below:

Table 1
Average Frequency of Nausea and Vomiting Before and After Giving Acupressure at Pericardium Point 6 in First Trimester Pregnant Women at Taman Sari 6 Clinic Pekanbaru City

Group	N	Mean	SD	Min	Max
Before Intervention (Pre)	25	2.56	0.51	2	3
After Intervention (Post)	25	2.04	0.35	1	3

In table 1.1, it can be seen that the average frequency of nausea and vomiting in first trimester pregnant women before being given acupressure at the 6th pericardial point was 2.56 (SD 0.51) and after

being given there was a decrease in the frequency of nausea and vomiting with an average value of 2.04 (SD 0.35).

Table 2
The Effect of Acupressure on Pericardial Point 6 in First Trimester Pregnant Women on Nausea-Vomiting Pregnancy at Taman Sari 6 Clinic Pekanbaru City

Group	N	Mean	SD	p-value
Before Intervention (Pre)	25	2.56	0.51	0.000
After Intervention (Post)	25	2.04	0.35	

In table 1.2, it can be seen that the results of the Two Sample T Test with a 95% confidence degree show that there is an effect of acupressure at the pericardium point 6 on the nausea and vomiting of pregnant women with TM I ($p = 0.000$).

Nausea and vomiting during pregnancy are caused by increased levels of the hormones estrogen and progesterone produced by Chorionic Gonadotropin (HCG) in the placenta (McParlin et al., 2016). Pregnant women who experience complaints of nausea and vomiting are natural symptoms that will be felt in the first trimester, usually, the mother will experience signs or symptoms such as dizziness, excessive salivation, and expelling some food and even everything that has been consumed. In addition, in many cases, pregnant women experience excessive nausea and vomiting which can worsen the general condition of the mother and can interfere with the daily activities of pregnant women (Dunbar et al., 2022; Liu et al., 2022). Nausea and vomiting in pregnancy can have serious consequences for the mother and especially the fetus. Low Birth Weight (LBW) and premature birth are the most common consequences that can harm the fetus because of the severity of nausea and vomiting experienced by the mother (Fadhilah et al., 2021).

DISCUSSIONS

The results of research conducted at the Taman Sari 6 Pekanbaru Pratama Clinic on the effect of acupressure at the pericardium 6 points on nausea and vomiting in first trimester pregnant women from January to October 2022, it was found that the average frequency of nausea and vomiting before being given acupressure was at this point. pericardium 6 was 2.56 (SD 0.51) and after being given acupressure at the pericardium 6 points there was a decrease in the frequency of nausea and vomiting with an average value of 2.04 (SD 0.35). This means that there is a decrease in the frequency of nausea and vomiting before and after being given acupressure at the pericardium point 6. Within 24 hours before the acupressure intervention was given at the pericardium 6 points, pregnant women experienced nausea and vomiting with a minimum score of 5 and a maximum of 11. This was categorized by the level of nausea and vomiting, moderate vomiting. Within 24 hours after being given acupressure intervention at the pericardium point 6, pregnant women experienced nausea and vomiting with a minimum score of 3 and a maximum of 8. This was categorized as mild nausea and vomiting. The results of the Two Sample T Test showed that there was an effect of acupressure on the 6th pericardial point ($p=0.000$).

Pregnant women are required to be able to adapt to complaints of nausea and vomiting, if they cannot adapt, it can endanger both pregnant women and the fetus in their womb. Pregnant women who experience nausea and vomiting need adequate nutrition (Boelig et al., 2017; Fejzo et al., 2019). Pregnant women will experience complications if nausea and vomiting are not resolved. Malnutrition and dehydration are the most obvious complications. If pregnant women can't handle it properly, it can result in a fluid loss in the abdomen resulting in dehydration, hypokalemia, and metabolic alkalosis

(Can Gürkan & Arslan, 2008; Indah Sari & Wahyuningsih, 2021; Mariza & Ayuningtias, 2019).

What can be done to prevent these complications is to carry out management. Treatment of pregnant women to overcome nausea and vomiting is done using the pharmacological treatment and non-pharmacological treatment. Antihistamines, antihistamines, and corticosteroids are pharmacological therapies that can be given to pregnant women when experiencing nausea and vomiting. While non-pharmacological therapy for complaints of nausea and vomiting in pregnant women is carried out by adjusting diet, emotional support, acupressure, and ginger (Can Gürkan & Arslan, 2008; O'Donnell et al., 2016; Sulistiarini et al., 2018).

Non-pharmacological treatment with the acupressure method is a safe method for pregnant women and their fetuses. This acupressure technique is a development of massage therapy and is closely related to the development of acupuncture because acupressure techniques are derived from acupuncture. Acupressure therapy is done by using fingers to replace needles but is still done at the same point as acupuncture therapy (O'Donnell et al., 2016; Sulistiarini et al., 2018).

Acupressure at the point of pericardium 6 is located three fingers above the wrist between the flexor carpi radialis tendon and the palmaris longus muscle. Acupressure at the point pericardium 6 can reduce nausea and vomiting because the stimulation can increase the release of beta-endorphins through the lining of the heart, redeeming the diaphragm. across the stomach and large intestine is carried through afferent nerves to the brain and beta-endorphins block receptors that stimulate vomiting in the mor2ceptor Trigger Zone (CTZ) and vomiting center so that nausea and vomiting decrease (Fadhilah et al., 2021; Indah Sari & Wahyuningsih, 2021)

The results of this study are supported by research conducted by Sari and Wahyuningsih (2021) under the title "The Effectiveness of Acupressure Therapy on Decreasing Complaints of Nausea and Vomiting in Pregnant Women" which states that there is an effect of acupressure on reducing nausea and vomiting in first-trimester pregnant women (Indah Sari & Wahyuningsih, 2021). A similar study conducted by Handayanidan Afyah (2019) under the title The Effect of Acupressure on Reducing Nausea and Vomiting in Pregnant Women in the Independent Practice of Sidoarjo Midwives found that 11 samples of pregnant women in the intervention group experienced a decrease in nausea and vomiting from an average initial score of 8 to 5

after the intervention and = 0.010 means that acupressure affects reducing nausea and vomiting (Handayani & Afyah, 2019).

Other supporting studies were also conducted by Gurkan and Arslan (2008) on the Effect Of Acupressure On Nausea And Vomiting During Pregnancy, showing that Acupressure is effective in controlling, and reducing symptoms of nausea and vomiting during pregnancy (Can Gürkan & Arslan, 2008). The same study by Fadhilah et al (2020) under the title Effect of Pericardium Point Acupressure 6 on Gravidarum Emesis Trimester I Pregnant Women at the Working Area Public Health Center Koto Apak In 2020 showed that the average score of emesis gravidarum before acupressure in the experimental group was 8.69 ± 0.48 and the control group was 7.62 ± 1.19 . The mean score of emesis gravidarum after acupressure in the experimental group was 3.31 ± 0.48 and in the control group was 5.69 ± 1.75 . The mean decrease in the score of emesis gravidarum in the experimental group was 5.38 ± 0.50 and in the control group was 1.92 ± 1.80 . There was a significant difference in the emesis gravidarum scores between the experimental and control groups ($p < 0.05$). This study concludes that there is an effect of acupressure on the pericardium point 6 in the form of a significant decrease in the frequency of nausea and vomiting in first-trimester pregnant women who experience emesis gravidarum (Fadhilah et al., 2021).

According to the researcher's analysis, acupressure on the pericardial point can produce a good evaluation in pregnant women who experience nausea and vomiting with mild and moderate nausea and vomiting categories. Acupressure at the Pericardium 6 point is a more practical, cost-effective way, without side effects, and focuses more on the body's nerve points so that it can be used as the right solution in reducing nausea and vomiting in pregnant women. In addition, acupressure on the pericardial point 6 has been extensively studied with many positive results for relieving nausea and vomiting in pregnant women. The intensity of the initial pressure is done gently, then the strength of the pressure is increased gradually but does not cause pain to the patient. Emphasis is given by turning clockwise. The duration of time for giving P6 acupressure therapy using the thumb is 5-10 minutes 1 time a day, namely in the morning. This intervention can be performed in a sitting or lying position in a position that is comfortable for the patient.

CONCLUSION

The study entitled The effect of acupressure at the point of pericardium 6 on nausea and vomiting

in the first trimester of pregnant women showed that the average frequency of nausea and vomiting before being given acupressure at the point of pericardium 6 was 2.56 (SD 0.51) and after being given acupressure at the point pericardium 6 there was a decrease in the frequency of nausea and vomiting with an average value of 2.04 (SD 0.35). This means that there is a decrease in the frequency of nausea and vomiting before and after acupressure is given at the pericardial point 6.

SUGGESTION

It is hoped that other researchers can use other acupressure methods to reduce nausea and vomiting, such as the acupressure techniques KID point21 (Youmen), St 36 (Zu San Li), and point Sp 3 (Gong Sun). Or you can compare the effectiveness of each point to get more optimal effectiveness.

BIBLIOGRAPHY

- Adlan, A. S., Chooi, K. Y., & Mat Adenan, N. A. (2017). Acupressure as adjuvant treatment for the inpatient management of nausea and vomiting in early pregnancy: A double-blind randomized controlled trial. *Journal of Obstetrics and Gynaecology Research*, 43(4), 662–668. <https://doi.org/10.1111/jog.13269>
- Anisa, H., Heni, P., Esti, S., Priyo, R., & Kep, M. (2014). Pengaruh Akupresur thd Morning Sickness. *Jurnal Ilmu Kesehatan*, 36–43.
- Boelig, R. C., Barton, S. J., Saccone, G., Kelly, A. J., Edwards, S. J., & Berghella, V. (2017). Interventions for treating hyperemesis gravidarum: A cochrane systematic review and meta-analysis. *Journal of Maternal-Fetal and Neonatal Medicine*, 31(18), 2492–2505. <https://doi.org/10.1080/14767058.2017.1342805>
- Can Gürkan, Ö., & Arslan, H. (2008). Effect of acupressure on nausea and vomiting during pregnancy. *Complementary Therapies in Clinical Practice*, 14(1), 46–52. <https://doi.org/10.1016/j.ctcp.2007.07.002>
- Dunbar, K., Yadlapati, R., & Konda, V. (2022). Heartburn, Nausea, and Vomiting During Pregnancy. *The American Journal of Gastroenterology*, 117(10), 10–15. <https://doi.org/10.14309/ajg.0000000000001958>
- Fadhilah, N., Mayetti, & Rasyid, R. (2021). Effect of Pericardium Point Acupressure 6 on Gravidarum Emesis Trimester I Pregnant Women at the Working Area Public Health Center Koto Berapak In 2020. *Midwifery.iocspublisher.Org*, 10(1), 367–378.

<https://midwifery.iocspublisher.org/index.php/midwifery/article/view/221%0Ahttps://midwifery.iocspublisher.org/index.php/midwifery/article/view/221/186>

- Fejzo, M. S., Trovik, J., Grooten, I. J., Sridharan, K., Roseboom, T. J., Vikanes, Å., Painter, R. C., & Mullin, P. M. (2019). Nausea and vomiting of pregnancy and hyperemesis gravidarum. *Nature Reviews Disease Primers*, 5(1). <https://doi.org/10.1038/s41572-019-0110-3>
- Handayani, N., & Afyah, R. K. (2019). Pada Ibu Hamil di Praktek Mandiri Bidan Sidoarjo. *Jurnal Kebidanan*, XI(2), 102–109.
- Hollyer, T., Boon, H., Georgousis, A., Smith, M., & Einarson, A. (2002). The use of CAM by women suffering from nausea and vomiting during pregnancy. *BMC Complementary and Alternative Medicine*, 2, 1–6. <https://doi.org/10.1186/1472-6882-2-5>
- Indah Sari, D., & Wahyuningsih, S. (2021). The Effectiveness of Acupressure Therapy on Decreasing Complaints of Nausea and Vomiting in Pregnant Women. *Nursing and Health Sciences Journal (NHSJ)*, 1(1), 20–30. <https://doi.org/10.53713/nhs.v1i1.5>
- Liu, C., Zhao, G., Qiao, D., Wang, L., He, Y., Zhao, M., Fan, Y., & Jiang, E. (2022). Emerging Progress in Nausea and Vomiting of Pregnancy and Hyperemesis Gravidarum: Challenges and Opportunities. *Frontiers in Medicine*, 8(January), 1–17. <https://doi.org/10.3389/fmed.2021.809270>
- Mahmoud, R., Ghani, A., Tawfik, A., & Ibrahim, A. (2013). *The Effect of Aromatherapy Inhalation on Nausea and Vomiting in Early Pregnancy : A Pilot Randomized Controlled Trial*. 3(6), 10–22.
- Mariza, A., & Ayuningtias, L. (2019). Penerapan akupresur pada titik P6 terhadap emesis gravidarum pada ibu hamil trimester 1. 13(3), 218–224.
- McParlin, C., O'Donnell, A., Robson, S. C., Beyer, F., Moloney, E., Bryant, A., Bradley, J., Muirhead, C. R., Nelson-Piercy, C., Newbury-Birch, D., Norman, J., Shaw, C., Simpson, E., Swallow, B., Yates, L., & Vale, L. (2016). Treatments for hyperemesis gravidarum and nausea and vomiting in pregnancy: A systematic review. *JAMA - Journal of the American Medical Association*, 316(13), 1392–1401. <https://doi.org/10.1001/jama.2016.14337>
- Munjiah, I., Madjid, T. H., Herman, H., Husin, F., Akbar, I. B., & Rizal, A. (2015). Perbedaan Pengaruh Akupunktur dan Vitamin B6

- terhadap Penurunan Intensitas Mual Muntah pada Emesis Gravidarum Berat. *Ijemc*, 2(180), 4–9.
- O'Donnell, A., McParlin, C., Robson, S. C., Beyer, F., Moloney, E., Bryant, A., Bradley, J., Muirhead, C., Nelson-Piercy, C., Newbury-Birch, D., Norman, J., Simpson, E., Swallow, B., Yates, L., & Vale, L. (2016). Treatments for hyperemesis gravidarum and nausea and vomiting in pregnancy: A systematic review and economic assessment. *Health Technology Assessment*, 20(74), vii–268. <https://doi.org/10.3310/hta20740>
- Rad, M. N., Lamyian, M., Heshmat, R., Jaafarabadi, M. A., & Yazdani, S. (2012). A randomized clinical trial of the efficacy of kid21 point (youmen) acupressure on nausea and vomiting of pregnancy. *Iranian Red Crescent Medical Journal*, 14(11), 699–703. <https://doi.org/10.5812/ircmj.2153>
- Saberi, F., Sadat, Z., Abedzadeh-Kalahroudi, M., & Taebi, M. (2013). Acupressure and ginger to relieve nausea and vomiting in pregnancy: A randomized study. *Iranian Red Crescent Medical Journal*, 15(9), 854–861. <https://doi.org/10.5812/ircmj.12984>
- Santi, D. R. (2013). Pengaruh Aromaterapi Blended Peppermint dan Ginger Oil terhadap Rasa Mual pada Ibu Hamil Trimester Satu di Puskesmas Rengel Kabupaten Tuban. *Jurnal Said Med*, 5 No. 2, 2011–2014.
- Sari, S. I. P., Noviani, A., Masdiputri, S. N., & Inayah, N. (2017). Relationship Of Education, Family Income, Compliance And Procedure Consumption Of Iron Tablet To Anemia Among Pregnant Women. In *Proceedings of the International Conference on Applied Science and Health*, No. 1, p.(Relationship Of Education, Family Income, Compliance And Procedure Consumption Of Iron Tablet To Anemia Among Pregnant Women).
- Sulistiarini, U., Widyawati, M. N., & Rahayu, D. L. (2018). Studi Literatur: Acupressure Pericardium Dan Aromatherapy Citrus Untuk Mengurangi Mual Muntah Ibu Hamil. *Jurnal Kebidanan*, 8(2), 146. <https://doi.org/10.31983/jkb.v8i2.3744>
- Utara, U. S., Utara, U. S., & Utara, U. S. (2019). Pengaruh Hidro-Aroma Terapi Terhadap Kenyamanan , Heart Rate , dan Saturasi Oksigen pada Pasien Gagal Jantung.
- Wandira, A. (2016). Efektifitas Aromaterapi Lemon dalam Mengurangi Mual dan Muntah pada Ibu Hamil Trimester Pertama.