IJICM International Journal of Islamic and Complementary Medicine

Delvy Atriani, *Implementation of acupressure in reducing labor pain*
e-ISSN: 2828-4569,Volume 6, No 1, 2025
https://doi.org/10.55116/IJICM.V6I1.100
Page 44-51

IMPLEMENTATION OF ACUPRESSURE IN REDUCING LABOR PAIN

Delvy Atriani[1], Indri Seta Septadina[2]*

[1]Magister of Biomedical Programme, Faculty of Medicine, Sriwijaya University, Palembang, Indonesia
[2]Department of Anatomy, Faculty of Medicine, Universitas Sriwijaya, Palembang, Indonesia

ABSTRAK

Nyeri persalinan adalah fenomena fisiologis multifaset dan sering menjadi salah satu yang paling elemen yang paling sulit dari proses persalinan. Jika nyeri persalinan tidak ditangani dengan baik, maka dapat mengakibatkan komplikasi yang tidak hanya menyusahkan ibu tetapi juga berpotensi berbahaya bagi janin. Akupresur adalah teknik yang dapat yang dapat digunakan untuk mengurangi intensitas nyeri persalinan. Akupresur adalah praktik pengobatan tradisional tradisional yang melibatkan pemberian tekanan pada titik-titik tertentu pada tubuh. Artikel ini akan mengeksplorasi penerapan akupresur dalam mengurangi nyeri persalinan dari berbagai sumber ilmiah yang dapat dipercaya. Penelitian telah menunjukkan bahwa memberikan tekanan pada titik-titik seperti LI4, SP6, GB21, dan BL32 dapat mengurangi intensitas nyeri selama persalinan, menjadikan akupresur sebagai pilihan pilihan manajemen non-farmakologis selama persalinan.

Kata kunci: Akupresur, persalinan, nyeri

ABSTRACT

Labor pain is a multifaceted physiological phenomenon and is frequently one of the most arduous elements of the birthing process. If labor pain is unmanaged, it may result in complications that are not only distressing for the mother but also potentially hazardous for the fetus. Acupressure is a technique that can be used to reduce the intensity of labor pain. Acupressure is a traditional Chinese medicine practice that involves applying pressure to specific points on the body. This article will explore the implementation of acupressure in alleviating labor pain from various credible scientific sources. Research has shown that applying pressure to points such as LI4, SP6, GB21, and BL32 reduces pain intensity during labor, making acupressure a non-pharmacological management option during childbirth.

Keywords: *Acupressure, labor, pain*

Correspondence Author :
Indri Seta Septadina
Department of Anatomy, Faculty of Medicine, Universitas Sriwijaya, Palembang, Indonesia
Email : indrisetaseptadina@fk.unsri.ac.id

e-ISSN: 2828-4569,Volume 6, No 1, 2025
https://doi.org/10.55116/IJICM.V6I1.100
Page 44-51

1. INTRODUCTION

Labor pain is a complex physiological experience and is often one of the most challenging aspects of the birth process . The perception of pain during labor is very individual; most women can cope with the pain themselves, but many need help to cope with labor pain.[1,2]

Several factors trigger the pain felt during labor. Cervical dilation combined with uterine contractions and stretching of the pelvic muscle and ligament structures causes pain during labor. In addition, myometrial ischemia that occurs during uterine contractions causes the release of mediators that also trigger pain.[1,3]

Psychological factors also play an essential role in the experience of labor pain. Positive attitudes towards labor during pregnancy and Support from loved ones are associated with lower pain intensity during childbirth .[1,4,5]

Labor pain management, both pharmacologically and non-pharmacologically, continues to be developed to help overcome labor pain. 73% of women in labor prefer non-pharmacological management as the initial management to overcome labor pain. [1] Various non-pharmacological management methods, including the acupressure approach, continue to be developed. Therefore, this literature review will discuss further the role of complementary acupressure therapy in reducing labor pain.

2. METHOD

The research method employed was a literature review utilizing a descriptive approach. The search was conducted through Google Scholar, PubMed, and Science Direct using the keywords "acupressure", "labor" and "pain".

3. DISCUSSION

3.1 PHYSIOLOGY OF LABOR PAIN

Labor pain is a physiological response to biological processes triggered by myometrial ischemia during uterine contractions, stretching of the cervix, vagina, and perineum during labor, and distension of the perineal structures. Myometrial ischemia occurs due to arterial vasoconstriction during repeated contractions that stimulate the release of mediators such as bradykinin, acetylcholine, serotonin, histamine, prostaglandins, and others that trigger the onset of pain.[1]

As labor progresses, there will be changes in elasticity and stretching of various organs involved in the labor process. Pain will arise due to this stretching. Stretching will stimulate pain through both visceral and somatic mechanisms. Visceral pain is transmitted through unmyelinated 'C' fibers that run with sympathetic fibers and pass through the uterus, cervix,

e-ISSN: 2828-4569,Volume 6, No 1, 2025
https://doi.org/10.55116/IJICM.V6I1.100
Page 44-51

and hypogastric nerve plexus into the main sympathetic chain. This pain follows the T10-T12 dermatomes, so the pain will be felt in the lower abdomen, sacrum, and back. Somatic pain involves "A" fibers, which are thick myelinated fibers that pass through the pudendal nerve and perineum—posterior cutaneous nerve branch of the thigh to nerves S2 - S4. Somatic fibers from the ilioinguinal cutaneous branch and the genitofemoral nerve also carry afferent fibers to L1 and L2. Somatic pain occurs near labor and is sharp and easily localized in the vagina, rectum, and perineum.[1,6]

At the end of the labor process, pain increases due to distension of the perineum, stretching, and pressure from various adnexa, rectum, urinary tract, lumbosacral plexus, and spasm of the musculoskeletal muscles that assist the labor process.

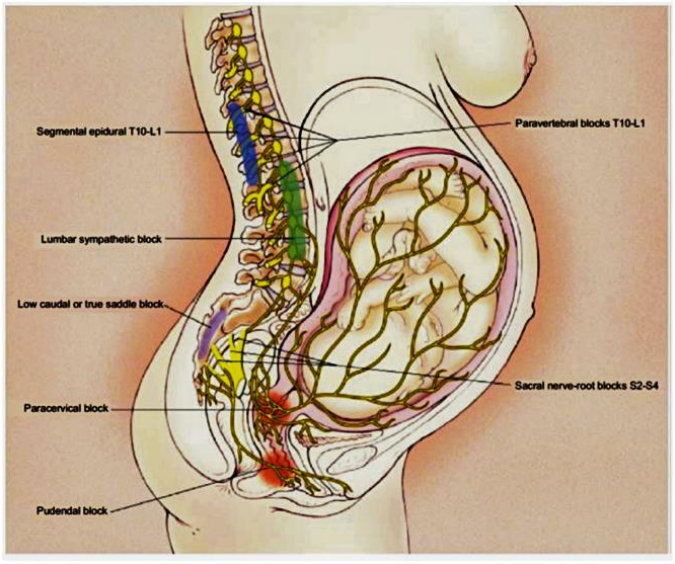


Figure 1. Transmission of labor pain

3.2 ACUPRESSURE AS A COMPLEMENTARY THERAPY

Acupressure is a traditional Chinese medicine that involves pressing on specific points on the body called *acupoints*. Originating from Taoism, acupressure is a healing science based on balance. Balance is physical and requires balance spiritually, psychologically, economically, socially, and culturally. A person achieves health by balancing *Yin* (human) and *Yang* (nature). Conversely, illness is an imbalance between the elements of *Yin* and *Yang* .[7]

According to Yin Yang's theory, every object in the universe has two opposing aspects. However, they are interrelated and influence each other, forming and destroying each other, moving dynamically in unity but not absolutely. Health disorders *disrupt the yin-yang balance*, requiring efforts to restore it. If *Yin* is dominant, then efforts are made to strengthen *Yang* . Likewise, if *Yang* is dominant, efforts must be made to strengthen *Yin.*

In acupressure, the primary material of human life consists of *jing, qi,* and *shen*. *Jing* means matter, *qi* means vital energy, and *Shen* means spirit. *Qi* plays a significant role in the mechanism

e-ISSN: 2828-4569,Volume 6, No 1, 2025
https://doi.org/10.55116/IJICM.V6I1.100
Page 44-51

of acupressure. Vital energy (*qi*) flows throughout the body through particular meridian pathways. Meridians are an unbroken network in the body; their physical form is not visible, unlike blood vessels and nerves, which are visible. On the meridian pathway, there are acupressure points, which are the centers of *qi* in the body. [15]

Meridians are divided into general meridians and special meridians. General meridians consist of 12 parts, namely Lung (LU), Large Intestinal (LI), Stomach (ST), Spleen (SP), Heart (HT), Small Intestinal (SI), Bladder (BL), Kidney (KI), Pericardium (PC), Triple Heater (TH), Gall Bladder (GB), and Liver (LR). Special meridians consist of 8 parts: Conception Vessel (CV), Governor Vessel (GV), Chong, Dai, Yin Qiao, Yang Qiao, Yin Wei, and Yang Wei.

Acupressure points are meridian nodes where *qi is centered* and are stimulation points to smooth the flow of *qi* and create *a Yin Yang balance* in the body. Acupressure points on the skin's surface are sensitive to bioelectric stimulation and can transmit the stimulation. In general, the mechanism of acupressure in reducing pain can be explained based on three mechanisms, namely:[8] Pressing acupressure points on the body's surface can stimulate type I and type II afferent nerves or tA-delta fibers in the muscles that send impulses to the anterolateral tract in the spinal cord. In the spinal cord, pain is inhibited presynaptically by releasing encephalin and dienorphin, preventing pain messages from traveling up the spinothalamic tract. Acupressure stimulates the midbrain structure by activating cells in the periaqueductal gray matter and raphe nuclei. Then the signal will be sent down through the dorsolateral tract which causes the release of monoamines norepinephrine and serotonin in the spinal cord. These neurotransmitters will inhibit pain at the presynaptic and postsynaptic levels by reducing signal transmission through the spinothalamic tract. Stimulation of the hypothalamic-pituitary complex causes the systemic release of beta-endorphin into the bloodstream from the pituitary gland; the release of adrenocorticotropic hormone accompanies the release of beta-endorphin. In addition to reducing pain, acupressure can maintain body balance by reducing tension, stress and increasing immunity to environmental changes or disease.

3.3 THE ROLE OF ACUPRESSURE IN REDUCING LABOR PAIN

Applying pressure to the acupressure sites LI4, SP6, GB21, and BL32 helps mitigate pain during labor. LI point is one of the points in the Large Intestinal meridian. This meridian starts from the tip of the index finger up along the outer edge of the arm towards the shoulder, up the neck and face, and ends at the opposite edge of the nose.
[9–12]

e-ISSN: 2828-4569,Volume 6, No 1, 2025
https://doi.org/10.55116/IJICM.V6I1.100
Page 44-51

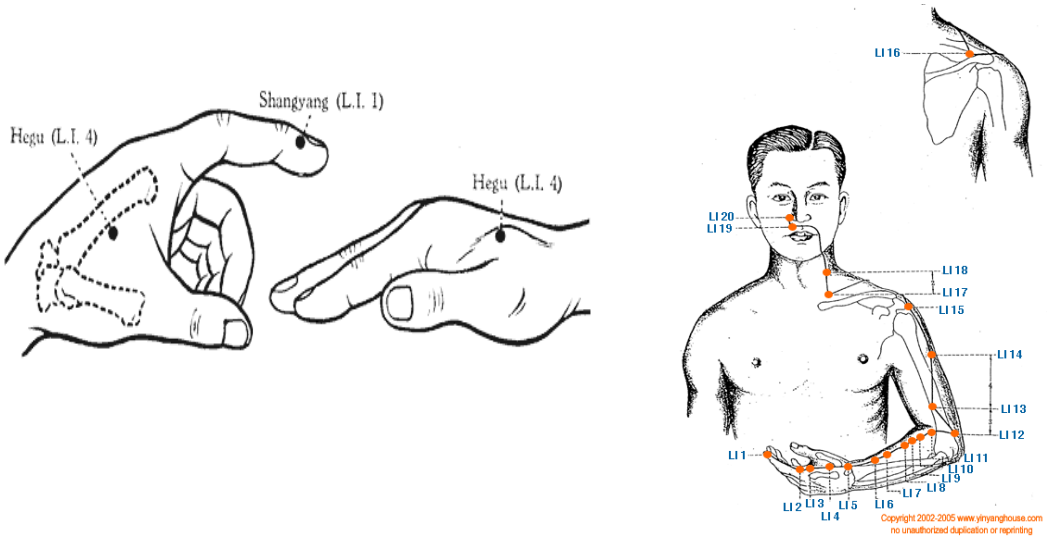


Figure 2. Meridian LI Meridien LI as a whole (a) and Point LI4 (b)

SP6 point is part of the Spleen meridian, which starts from the inside of the big toe and goes up along the dark and light borders of the back of the foot to the inner edge of the leg towards the thigh, then to the side of the stomach, chest and ends in the fold under the armpit.

a

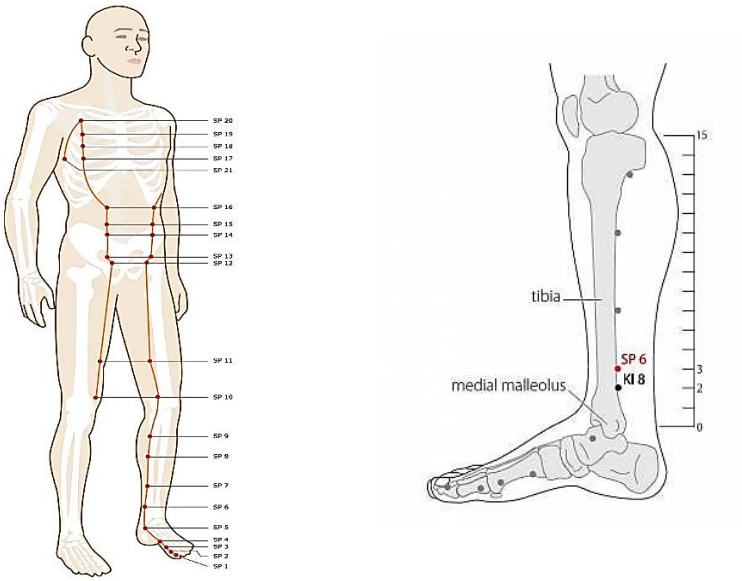
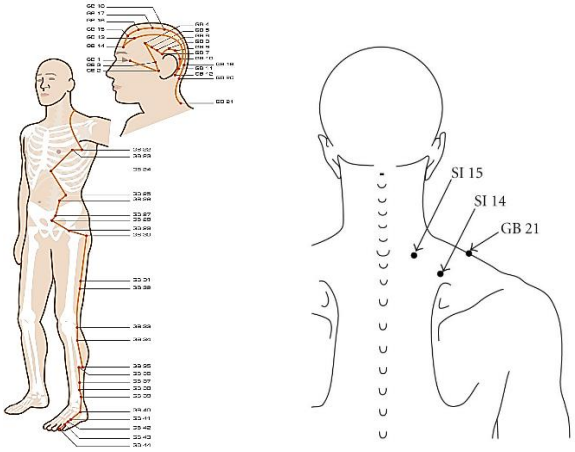


Figure 3. SP Meridian
SP meridian as a whole (a) and SP6 point (b)

e-ISSN: 2828-4569,Volume 6, No 1, 2025
https://doi.org/10.55116/IJICM.V6I1.100
Page 44-51

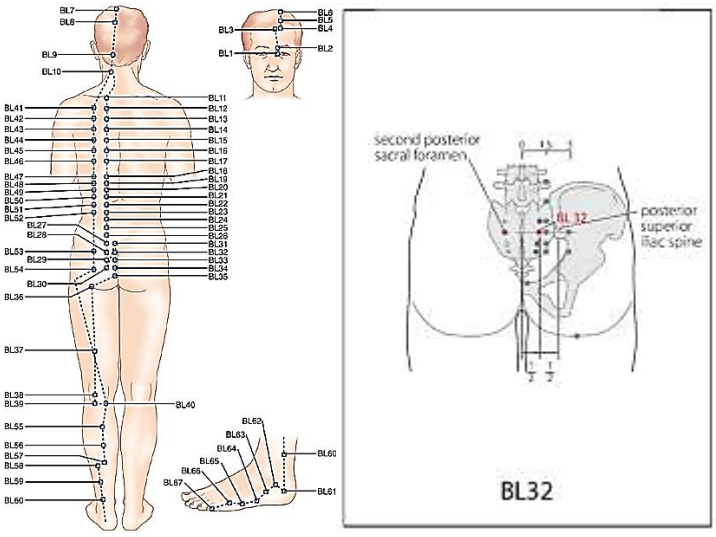
The GB21 point is part of the Gall Bladder meridian, which starts from the outer corner of the eye, goes up the side of the head to below the tragus, goes up towards the corner of the hairline along the side of the head towards the nape, passes through the neck, shoulders, front of the arms, under the armpits, along the side of the body, the outer legs and ends at the tip of the fourth toe.



a b

Figure 4. GB Meridian
Overall GB meridian (a) and point GB21 (b)

Point BL32 is part of the Bladder meridian, which starts from the inner corner of the eye, goes straight up to the head, then along the back parallel to the spine down to the pelvis and then to the middle of the thigh, down to the calf, behind the outer ankle and ends at metatarsal V.



a b

Figure 5. Meridian BL
Meridan BL as a whole (a) and Point BL32 (b)

e-ISSN: 2828-4569,Volume 6, No 1, 2025
https://doi.org/10.55116/IJICM.V6I1.100
Page 44-51

Acupressure to reduce labor pain is done at points LI4, SP6, GB21, and BL32 by applying pressure using fingers or other body parts or aids 15 times with a duration of 60 seconds each time and a break for 10-60 seconds. So the total duration for each point is around 30 minutes.[13]

A study using acupressure to reduce pain showed a significant reduction in pain intensity for the four points.[7,10,11,13,14]

4. CONCLUSION

The application of acupressure as a non-pharmacological treatment to reduce labor pain efficiently reduces the intensity of the pain; hence, it can be utilized as an alternative non-pharmacological activity to lower the intensity of labor pain.

REFERENCES

1. Zuarez-Easton S, Erez O, Zafran N, Carmeli J, Garmi G, Salim R. Pharmacologic and nonpharmacologic options for pain relief during labor: an expert review. Vol. 228, American Journal of Obstetrics and Gynecology. Elsevier Inc.; 2023. p. S1246–59.
2. Desmawati, Kongsuwan W, Chatchawet W. Level of Labor Pain, Level of Labor Pain Behaviors, and Cultural Pain Behaviors among First-Time Indonesian Muslim Mothers. Open J Obstet Gynecol. 2021;11(01):27–39.
3. Wang JJ, Yang FPG, Tsai CC, Chao AS. The neural basis of pain during labor. Vol. 228, American Journal of Obstetrics and Gynecology. Elsevier Inc.; 2023. p. S1241–5.
4. Mathur VA, Morris T, McNamara K. Cultural conceptions of Women's labor pain and labor pain management: A mixed-method analysis. Soc Sci Med. 2020 Sep 1;261.
5. Karlsdottir SI, Sveinsdottir H, Kristjansdottir H, Aspelund T, Olafsdottir OA. Predictors of women's positive childbirth pain experience: Findings from an Icelandic national study. Women and Birth. 2018;31(3).
6. Bonapace J, Gagné GP, Chaillet N, Gagnon R, Hébert E, Buckley S. No. 355-Physiologic Basis of Pain in Labor and Delivery: An Evidence-Based Approach to its Management. Canadian Journal of Obstetrics and Gynecology. 2018;40(2).
7. Rahmawati DT, Iswari I. Effectiveness of Acupressure During Labor (Literature Review Study). Scientific Journal of Midwives. 2016;1(2).
8. Yudiatma F, et al. The Effect of Acupressure Therapy in Reducing Pain Levels. Journal of TSCNers. 2021;6(1).
9. Mafetoni RR, Shimo AKK. The effects of acupressure on labor pains during child birth: Randomized clinical trial. Rev Lat Am Enfermagem. 2016;24.
10. Mirzaee F, Hasaroeih FE, Mirzaee M, Ghazanfarpour M. Comparing the effect of acupressure with or without ice in LI-4 point on labor pain and anxiety levels during labor: a randomized controlled trial. J Obstet Gynaecol (Lahore). 2021;41(3):395–400.

e-ISSN: 2828-4569,Volume 6, No 1, 2025
https://doi.org/10.55116/IJICM.V6I1.100
Page 44-51

11. Torkiyan H, Sedigh Mobarakabadi S, Heshmat R, Khajavi A, Ozgoli G. The effect of GB21 acupressure on pain intensity in the first stage of labor in primiparous women: A randomized controlled trial. Complement Ther Med. 2021 May 1;58.
12. Mukhoirotin M, Mustafida H. Giving Combination Acupressure on Points BL32 and LI4, Points BL32 and Sp6 to Reduce the Intensity of Labor Pain. Journal of Holistic Nursing Science. 2020;7(2).
13. Marsilia ID, Kubilawati S. The Effect of Acupressure on Points SP6 and LI4 on Reducing Pain Intensity in the First Stage of Labor in PMB NY. TO, Klapanunggal Village, Bogor Regency. Baiturrahim Jambi Academic Journal. 2022;11(2).
14. Raana HN, Fan XN. The effect of acupressure on pain reduction during the first stage of labor: A systematic review and meta-analysis. Vol. 39, Complementary Therapies in Clinical Practice. Churchill Livingstone; 2020.
15. Situmorang, Yuniati. Acupressure Orientation for Health Center Officers. Jakarta: Ministry of Health of the Republic of Indonesia. 2012