



Acupressure Therapy in Pregnancy

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Abstract

Since time immemorial, complementary and alternative medicines (CAM) have played a significant role in human health care. CAM is known to have a strong reputation and reliability within every culture to provide basic health-care treatment for patients. CAM acts as a better therapeutic option in human being for treating various diseases and improving quality of life with apt consideration to the economic aspects. Acupressure, one of the known CAM, originated in ancient China, is based on the principal of acupoints activation across the meridians which correct the imbalance between Qi. It showed superior therapeutic potential against numerous disease conditions. Acupressure is a type of acupuncture. Both acupressure and acupuncture are based on same fundamental principle of acupoints activation across the meridians. It is a pressure point, hand-mediated energy healing technique which is considered as useful strategy for the management of multiple symptoms, along with beneficial physical comforts, satisfaction, and economy. As a whole, acupressure is a manually operated, needle-free, non-invasive, cost-effective, and non-pharmacological healing intervention to promote patients' well-being. From the last few decades, acupressure is widely used in pregnancy, like for induction of labor, morning sickness, and labor pain. CAM therapies are the real culture-specific remedies practiced throughout the world. Acupressure is a non-invasive and non-pharmacological intervention with multidimensional roles and benefits. To support acupressure (CAM) in the near future and expand CAM therapies, we have to shed more light on therapeutic functionalities of acupressure and to encourage its practice across the hospitals.

Keywords: Acupressure units of measurement, complementary and alternative medicine, distal points, local points, traditional chinese medicine

INTRODUCTION

Since time immemorial, complementary and alternative medicines (CAM) have played a significant role in human healthcare. CAM is known to have a strong reputation and reliability within every culture to provide basic health-care treatment for patients. CAM acts as a better therapeutic option in human being for treating various diseases and improving quality of life with apt consideration to the economic aspects. Acupressure, one of the known CAM, originated in ancient China is based on the principal of acupoints activation across

the meridians which correct the imbalance between Qi. Activation of specific points on the meridians is known to facilitate reduction of pain at the local sites. It also reduces the pain from other body parts. This review outlines various types, devices, and mechanisms involved in the acupressure treatment.^[1]

Acupressure is an alternative medicine technique often used in conjunction with acupuncture or reflexology. It is based on the concept of life energy, which flows through “meridians” in the body. In treatment, physical pressure is applied to acupuncture points, or ashi trigger points, with the aim of clearing blockages in these meridians. Pressure may be applied by hand, by elbow, or with various devices. Although some medical studies have suggested that acupressure may be effective at helping manage nausea and vomiting, insomnia, low back pain, migraines, and constipation, among other things, such studies have been found to have a high likelihood of bias.^[2]

Acupressure was originated in ancient China. It showed superior therapeutic potential against numerous disease

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conditions. Acupressure is a type of acupuncture. Both acupressure and acupuncture are based on same fundamental principle of acupoints activation across the meridians. In acupressure, muscular tension is released by applying pressure with hand at specific acupoints or pressure of the thumbs on specific points or the application of pressure to acupoints is used to balance the flow of the physiological energy. Acupressure demand application of physical pressure on trigger points/ acupoints/specific pressure points which are positioned along the meridians [Figure 1]. Meridians are the channels within human body which helps to maintain *Qi* and thus, steadiness of health condition. Each meridian is connected to various organs and tissues of human body. Activation of specific point on meridian by pressure facilitates pain reduction at the local site and also reduces the pain from other parts of the body. As a whole, acupressure is a manually operated, needle-free, non-invasive, cost-effective, and non-pharmacological healing intervention to promote patients' well-being.^[3]

ACUPOINTS

Entire human body is a cluster of pressure points. Acupoint is the point closest to the surface of the skin and activation of acupoint is the prime step in acupressure. Stimulation of specified acupoints is known to elicit functional responses that can be used to treat diseases. Acupoints are any specific points for needle insertion in acupuncture; mostly these are areas of high electrical conductance on the body surface. Each acupoint possesses a different sensation based on the body part which suffers from the pain or a specific problem. Simply, application of pressure at different points causes different effects. Location of each acupoint on specified meridian is determined in terms of body inch (BI) or Cun. One BI/Cun equals one thumb width at the base of the finger nail. BI/Cun is known as acupressure units of measurement (AUM).

Local points (LP) and distal points (DP) are the two important acupoints, employed by acupressurists to treat the patients in

routine clinical practice. Acupuncture and acupressure show different physiological effects on these points.^[4] In acupressure, acupoints can be activated by elbows, fingers, feet, knuckles, palms, thumb, or specific tools. In ancient China, acupoints were activated with the help of stones, known as Bian Stones. At present, numerous acupressure or elastic bands with a protruding plastic button are available.

MECHANISM OF ACTION

Qi permeates everything and it is the vital energy of life. It is the quality attribute that determines the state of one's health. Yin and Yang are customary medicinal traits conflicting as well as in equilibrium with each other. In accordance to traditional Chinese medicine (TCM), acupressure uses pressure to stimulate specific acupoints for therapeutic purposes and stimulating these points can correct imbalance between *Qi* through channels and subsequently treat the diseases. It is simply a non-pharmacological intervention on the body to treat a wide range of conditions by applied pressure to specific acupoints. It is the massage of acupoints performed with the fingertips, knuckles, thumbs, elbows, or suitable devices to achieve effective treatment that would last from several minutes to hours post a single treatment. Acupressure is a multi-modal therapy whose working mechanism can be elucidated by miscellaneous theories.^[5]

According to Gate Control Theory by Melzack and Wall, acupressure at specific point passes pleasurable impulses to the brain at a rate four times faster than painful stimuli. Continuous impulses shut the neural "GATES" and slower messages of pain are blocked from reaching the brain and help to improve or strengthen the pain perception threshold of body. Based on the location of stimulation, pressure-generation activates the small myelin nerves in the muscles and passes stimulations to the higher nerve centers including spinal cord, midbrain, hypothalamus, and pituitary-axis. Magnetoencephalography studies demonstrated conditioning of primary somatosensory response during the acupressure. In addition to sub-cortical effects on endogenous pain regulation, acupressure also exhibits potential for affecting primary somatosensory processing and possibly altering maladaptive neuroplasticity. Auricular acupressure (AA), a micro-acupuncture, is a non-invasive technique similar to reflexology in which endocrine functions are improved effectively. Acupressure results in acute reduction in pain sensitivity and pressure pain sensitivity (PPS). In most of the surgical process, acupressure aids in preventing surgical hemorrhage and accelerating the healing process.^[6]

DEVICES OF ACUPRESSURE

A wide range of portable acupressure devices (elastic or inelastic bands, mats with protruding plastic points) is available in market. These devices are designed by considering the patient comfort and ease of application [Figures 2 and 3]. By considering the patient's need, numerous devices generating

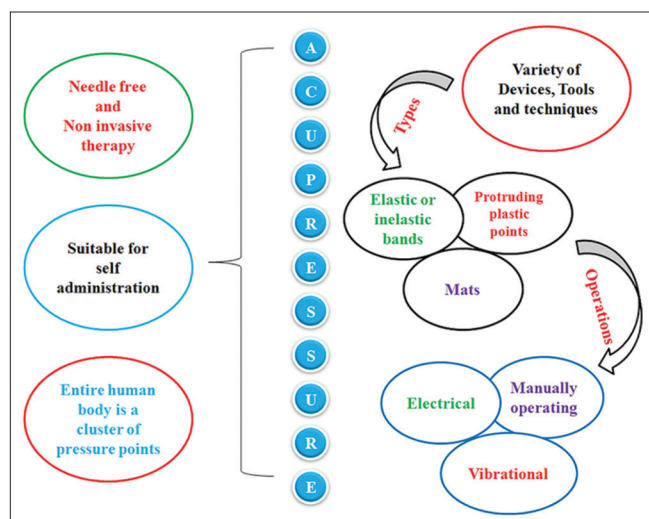


Figure 1: Graphical abstract of acupressure

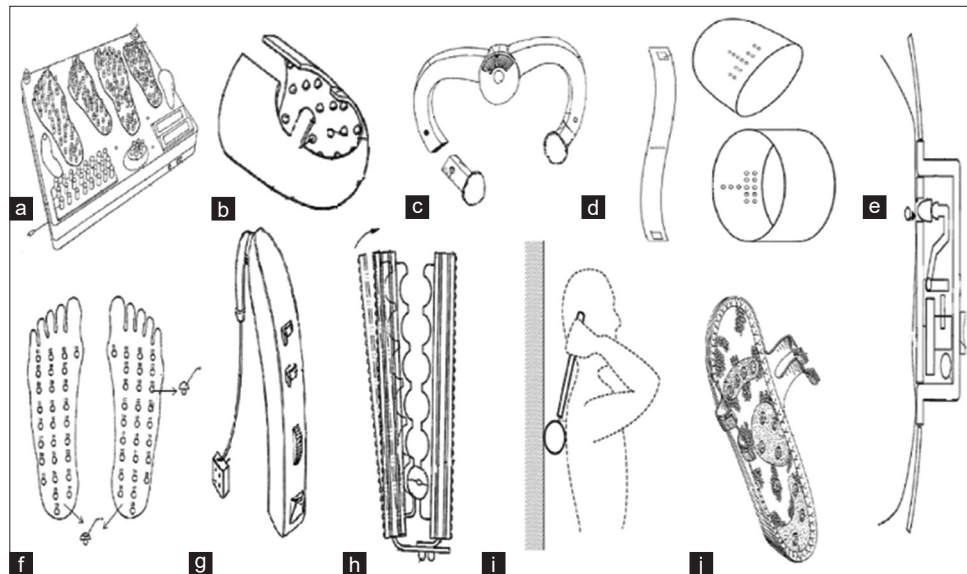


Figure 2: Patented devices (a–j). Acupressure device name: a. Acupressure footboard, b. Acupressure device for fingers, c. Acupressure and reflexology clamp, d. Acupressure device for treating insomnia, e. Automatically modulating acupressure device, f. Adjustable foot acupressure and pain relief platform, g. Electrical plus acupressure system, h. Finger acupressure apparatus, i. Hand-held acupressure device, and j. Massage footwear

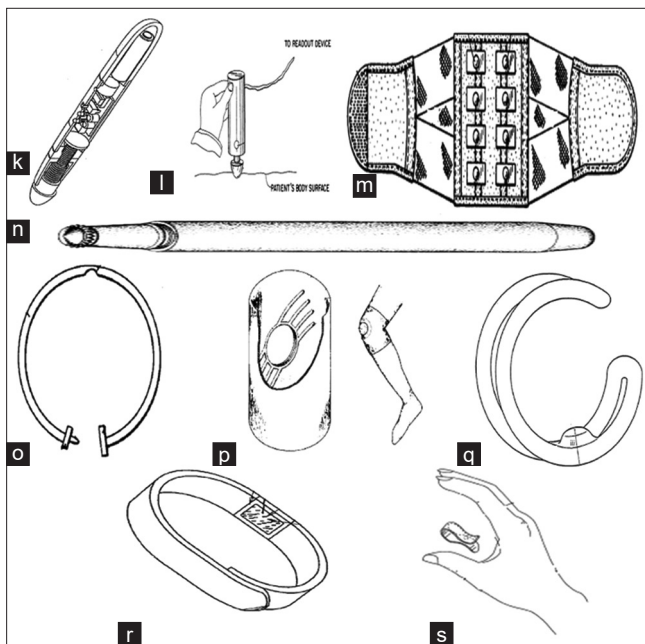


Figure 3: Patented devices (k–s). Acupressure device name: k. Opto-mechatronic acupressure pen, l. Quantitative acupressure device, m. Spinal acupressure device, n. Acupressure instrument for applying rolling pressure to the human body, o. Acupressure device for ear, p. Detachable acupressure device, q. Acupressure ring, r. Acupressure apparatus for treatment of soft-tissue injuries, and s. Acupressure clip

electrical impulse and vibrational energy-based devices are available to serve the purpose.^[7]

TYPES OF ACUPRESSURE

Acupressure techniques have been classified in various types depending on its origin, method, and combination with other techniques.

Shiatsu (Japanese acupressure)

Initially, shiatsu was originated in China and popular as “Anma” therapy and then it was brought to Japan. In Japan, acupressure is well known as “shiatsu.” In shiatsu, pressure is applied using thumb, elbow, or knee perpendicularly to the skin at acupoints along with passive stretching and joints-rotation. Disease diagnosis is performed through body touch by gentle application of pressure across the complete body physiology. Finger pressure (tsubos), finger massage, palms, and heels are employed to apply pressure and stimulate specific points along the meridians of the body to cure the pain.

Jin Shin Do's (Body-mind acupressure)

Jin Shin Do's is amalgamation of Western psychology with Japanese acupressure, Chinese acupuncture theory, and Taoist philosophy technique. Body-mind acupressure provides platform for the pain-management with unique mental health consoling.

AA

In 1950, Dr. Paul Nogier, a French neurosurgeon hypothesized the somatotopic correspondence of specific parts of the body to specific parts of the ear. AA is non-invasive therapy performed on outer ear to treat numerous ailments. The present-day AA therapy practiced worldwide is based on Dr. Nogier's principles. The World Health Organization considers AA therapy as a form of micro-acupuncture that can affect the whole body.

Tapas acupressure technique (TAT)

TAT is well-known as “Power therapy”. In TAT, mind and body interventions are achieved through tapping or holding specific acupoints with specific mental imagery for treatment of wide range of medical and psychological maladies.^[8–10]

USES OF ACCUPRESSURE

CAM therapies provide a platform which plays a paramount role in human health and welfare. Acupressure alleviates a wide range of disease conditions ranging from immune ailments to emotional disorders. It is a complementary treatment which effectively relieves diverse pains while managing multiple symptoms in a variety of patient population. The best part about acupressure is that it provides safe, gentle, and emotional touch for promoting the well-being in human population.^[11]

Accupressure for Labor Pain

Child birth (CB) is considered to be a natural phenomenon; however, the pain that it can bring is both subjective and complex involving physiological, cultural, and psychosocial aspects. At present, there are a lot of studies aimed at looking to reduce the pain in CB emphasizing non-medicinal treatments that are less invasive and more humanized. These are being developed by nurses and obstetricians. Labor pain relief methods are categorized into pharmacological (inhalation anesthesia, regional anesthesia, and opioids such as pethidine) and non-pharmacological (hypnosis, laboring in water, acupuncture, and massage) methods. Non-pharmacological applications may be performed by a midwife and a nurse independently in cooperation with the pregnant woman. In TCM, various alternative methods are used to alleviate pain mainly through acupuncture, moxibustion, acupressure, and the use of herbs. Acupressure functions in the same way as acupuncture in that it seeks to maintain the balance of energy in the various channels that circulate in the body – called meridians – that are connected to the specific body organs, but without the use of needles.

The most commonly used acupressure points during the birth process are Sanyinjiao (SP6). Sanyinjiao (SP6) is one of the most commonly used acupressure points and may have better therapeutic effects than lesser used or unused acupuncture points. Sanyinjiao is strongly related to the uterus. Pressing or needling SP6 promotes the flow of qi and blood to the uterus, improving nourishment and relieving pain in this organ. Sanyinjiao is easy for women to locate and for practitioners to apply pressure to without medical assistance. The SP6 point is believed to have the ability to control some aspects of the reproductive organs being in the case of dystocia and prolonged CB. It is located in the spleen-pancreas meridian, four fingers above the internal malleolus in the front part of the tibia [Figure 4].

Accupressure for morning sickness

Nausea and vomiting in pregnancy are a common condition experienced by 50–80% of pregnant women between 6 and 12 weeks of pregnancy. Acupressure stimulation can stimulate and increase blood circulation and vital energy, so as to maintain normal body functions. Nausea and vomiting are common problems during pregnancy. The previous studies have shown that stimulation at Neiguan (PC6) acupoint can be effective in controlling pregnancy-induced nausea and vomiting. KI21 (Youmen) point acupressure more effectively reduces nausea and vomiting occurring in pregnancy. Pericardium 6 (P6) or

PC6 point acupressure relieves morning sickness in pregnant women. It reduces the frequency of nausea in early pregnancy; in fact, it is equivocal with pyridoxine (Vitamin B6) without any evidence of teratogenicity.

Accupressure for induction of labor

Acupressure might increase blood flow to the uterus, influence hormonal responses, and stimulate uterine contractions, so it should only be used with your doctor's approval. There are five major acupressure points on the body that is believed to induce labor.

Spleen 6 point

The spleen 6 point (SP6) is considered one of the more versatile and commonly used points. It is used for many conditions, including labor induction. Known as Sanyinjiao — or three yin intersection — SP6 is located above the ankle, on the backside of the shinbone (lower calf). It is about the distance of four finger widths above the inner ankle bone [Figure 5].

Bladder 60 point

A few inches below SP6 is bladder 60 (BL60). This point is known as the Kunlun, named after the mountain range in Asia [Figure 6]. The Kunlun point is located on the foot, in the depression between the ankle and the Achilles tendon. It is used to promote labor, ease labor pain, and reduce obstruction.

Pericardium 8 point

Known as Laogong, or labor palace, the pericardium 8 (PC8) point is said to be very useful in inducing labor. It is located

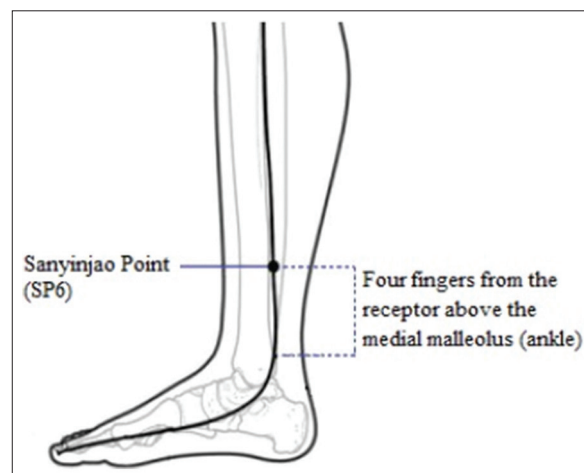


Figure 4: Sanyinjiao Point (SP6)



Figure 5: SP -6

in the center of the palm [Figure 7]. You can find it easily by making a fist and finding the point where your middle fingertip touches your palm.

Large intestine 4 point

The most common point in acupressure therapy, the large intestine 4 point (LI4) is known as Hegu, meaning “joining valley.” It is located on the back of the hand, deep between the webbing of your thumb and pointer finger [Figure 8]. Like BL67, the LI4 point is believed to induce labor. It may also stop pain and strengthen immunity, among other problem-relieving functions.

Bladder 32 point

Bladder 32 (BL32), also called the Ciliao — which means second crevice is located in the dimple of your buttocks, which you can find by running your fingers down your spine until you reach right above your intergluteal cleft [Figure 9].

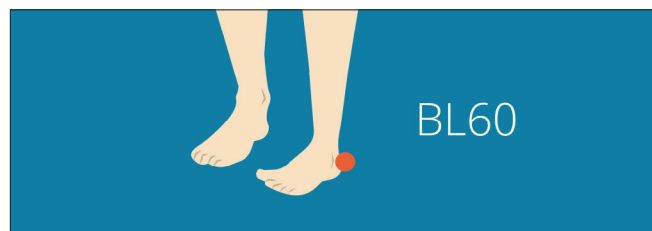


Figure 6: BL-60

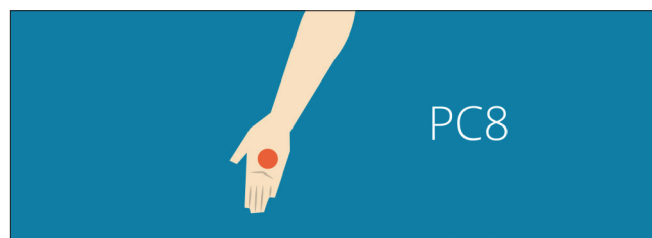


Figure 7: PC -8

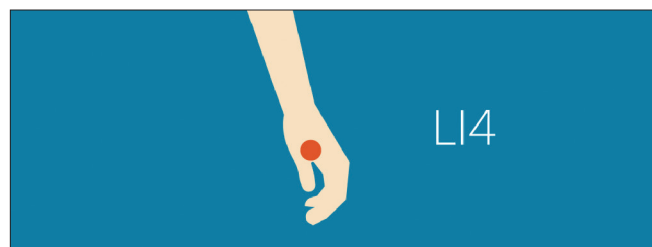


Figure 8: LI 4 Point

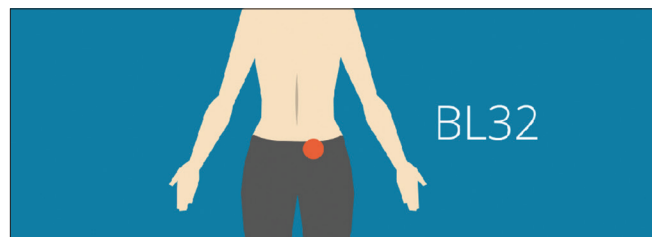


Figure 9: BL32 Point

This point is believed to trigger contractions and help relieve gynecological issues.^[12-16]

Limitations

As a self-healing technique, acupressure is performed individually by most of the patients. Proper diagnosis and selection of appropriate acupoint is the most important task in acupressure. It is essential to take reliable counseling from professional therapist in serious disease condition. It is always better to consult professional acupuncturist in critical conditions involving lung, kidney, heart, and other contagious diseases. With specialized techniques and modalities, related education in this field through accredited programs to professionals is essential. Acupressure should be avoided after meals, alcohol consumption, or after taking narcotics. One should not perform acupressure on skin if that is inflamed, injured, scarred, or has a rash. Even if acupressure is non-invasive and easily accessible technique, we have to take special precautions before applying it to pregnant women. Acupoints, namely, SP6, SP4, LI4, S36, and points on the abdomen should be completely avoided in case of pregnant women.

Acupressure fails to prevent chemotherapy-induced nausea and vomiting. Acupressure devices like Sea-Band applied to activate P6 point acupressure together with prophylactic ondansetron is not enough to reduce post-operative nausea and vomiting.^[17,18]

CONCLUSION

CAM therapies are the real culture-specific remedies practiced throughout the world. To support acupressure (CAM) in the near future and expand CAM therapies, we have to shed more light on therapeutic functionalities of acupressure and to encourage its practice across the hospitals.

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The author has no conflicts of interest to declare. No funding was obtained for this study.

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