

## <u>Case Study: Acupressure Therapy for Pain</u> <u>Managment</u>

"Contemporary acupressure therapy (CAM): Adroit cure for painless recovery of therapeutic ailments"

### Abstract:

Contemporary and alternative medicines or CAM has become increasingly important in remedial approaches.

Acupressure has many forms. Some therapists use acupoint stimulation by hands or even electrical devices.

Acupressure is an easy and safe hands-on therapy that has been used to treat people around the world.

#### Introduction:

Acupressure originated in ancient China. Acupressure uses pressure at acupoints to release muscular tension. It reduces muscle tension, improves circulation, and stimulates endorphins. These all lead to natural pain relief. The goal of acupressure is to restore health and balance to the body to regulate your body's energy. Acupressure uses pressure to trigger acupoints positioned on meridians. Meridians are channels in the human body that help maintain *Qi. Qi* is the "vital energy of life" and "is the

<sup>1</sup> "Medical Dictionary of Health Terms: A-C." *Harvard Health Publishing*, Harvard Medical School , 13 Dec. 2011, https://www.health.harvard.edu/a-through-c. <sup>2</sup> Stuart, Annie. "Acupressure Points and Massage Treatment for Pain, Nausea, and More." *WebMD*, WebMD,

https://www.webmd.com/balance/guide/acupressure-points-and-massage-treatment.

quality attribute that determines the state of one's health."<sup>3</sup> The goal of acupressure is to treat diseases through the re-equilibrium of *Qi*. Overall, acupressure is a non-pharmacological intervention for the treatment of the body. It is used to treat a large variety of conditions by application of pressure on specific acupoints.<sup>4</sup>

### Case Presentation:

Acupressure stimulates acupoints to treat a variety of conditions. Each point causes different effects. There are different types of points as well; Local points (LP, Distal Points (DP), and Tender Points (TP). LP and DP are two important acupoints that are routinely used to treat conditions. LPs present therapeutic responses in the automatic nervous system. Tender points are the third type present on nociceptor and polymodal receptors. These TPs present better effects on pain relief.

<sup>&</sup>lt;sup>3</sup> Tournaire M, Theau-Yonneau A. Complementary and alternative approaches to pain relief during labor. Evid Based Complement Alternat Med. 2007 Dec;4(4):409-17. doi: 10.1093/ecam/nem012. PMID: 18227907; PMCID: PMC2176140.

<sup>&</sup>lt;sup>4</sup> 18. vol. 15. 1997. Pp. 1–34.

http://consensus.nih.gov/1997/1997Acupuncture10 7html.htm (Acupuncture. National Institute of Health Consensus Development Conference Statement).

<sup>&</sup>lt;sup>5</sup> Choi E., Jiang F., Longhurst J. Point specificity in acupuncture. *Chin Med.* 2012;4:1–5.

<sup>&</sup>lt;sup>6</sup> Mehta, Piyush et al. "Contemporary acupressure therapy: Adroit cure for painless recovery of therapeutic ailments." *Journal of traditional and complementary medicine* vol. 7,2 251-263. 22 Jul. 2016, doi:10.1016/j.jtcme.2016.06.004





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These acupoints use pressure to stimulate or correct imbalances in *Qi*. When these imbalances are corrected through the meridian channels it can treat a variety of conditions.

"According to Gate Control Theory by Melzack and Wall, acupressure at a 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 the body."<sup>7,8</sup>

The biochemical mechanism of acupressure stimulates acupoints which then leads to complex neurohormonal responses. It can also exhibit physiological responses as well.

Acupressure increases the endorphins and serotonin transmitting in the brain. When used after exercise acupressure can help change the concentration of stress hormones and lactic acid. Acupressure applications for approximately 1 min at a specific point can help reduce local and propagating

pain.<sup>10,11</sup> After surgery acupressure can be used to reduce pain and sensitivity. It has even been found to accelerate healing processes.<sup>12</sup>

There are a wide variety of acupressure devices. These devices are designed for patients' comfort and ease of application. A lot of the devices are used to exert constant pressure at a specific point. There are many different types of acupressure. Shiatsu is a type of Japanese acupressure. It uses passive stretching, joint rotation, and pressure application. Jin Shin Do is a body and mind acupressure. This type uses western psychology, Japanese acupressure, Chinese acupuncture, and Taoist philosophy technique. Auricular acupuncture was used by Dr. Paul Nogier. He hypothesized about the

Paul Nogier. He hypothesized about the somatotopic correspondence of specific parts of the ear and the body. It is now a form of therapy that uses micro-acupuncture to achieve therapeutic

<sup>&</sup>lt;sup>7</sup> Mehta, Piyush et al. "Contemporary acupressure therapy: Adroit cure for painless recovery of therapeutic ailments." *Journal of traditional and complementary medicine* vol. 7,2 251-263. 22 Jul. 2016, doi:10.1016/j.jtcme.2016.06.004

<sup>&</sup>lt;sup>8</sup> Melzak R., Wall P. Pain mechanism: a new theory. *Sciences.* 1965;150:971–979.

<sup>&</sup>lt;sup>9</sup> Shin W. The effect of convalescent meridian acupressure after exercise on stress hormones and lactic acid concentration changes. *J Exerc Rehabil*. 2013;9:331–335.

<sup>&</sup>lt;sup>10</sup> Matsubara T., Arai Y.C., Shiro Y. Comparative effects of acupressure at local and distal acupuncture points on pain conditions and autonomic function in females with chronic neck pain. *Evid Based Complement Altern Med.* 2011;2011:1–6.

<sup>&</sup>lt;sup>11</sup> Hsieh L.L., Kuo C.H., Lee L.H. Treatment of low back pain by acupressure and physical therapy: randomized controlled trial. *BMJ.* 2006;332:696–700 <sup>12</sup> Goodman G.M. Acupressure. *J Med Biogr.* 2008;16:127.

<sup>&</sup>lt;sup>13</sup> *Dorland's Pocket Medical Dictionary.* 27th ed. Thomas Press (I) Ltd; India: 2007.

<sup>&</sup>lt;sup>14</sup> Ortego N.E. Acupressure: an alternative approach to mental health counselling through body mind awareness. *Nurse Pract Forum*. 1994;5:72–76.



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effects.<sup>15</sup> It is a non-invasive technique used to improve endocrine functions. It is known for stimulating the central nervous system through cranial nerves on the auricle of the ear.<sup>16</sup>

#### Conclusion:

CAM therapies have been practiced around the world. Acupressure is a non-invasive and non-pharmacological intervention that has a multitude of benefits. Some areas that are most notable include: reducing nausea, treating pain (chronic and non-chronic pain), labor pains, men's health, psychological conditions, and many more. CAM therapies have been used and have served an important role in human health. Acupressure helps with a large variety of conditions. It has been used in place of pharmacological treatments and it can be used alongside many pharmacological treatments as well.

Mehta, Piyush et al. "Contemporary acupressure therapy: Adroit cure for painless recovery of therapeutic ailments." *Journal of traditional and complementary medicine* vol. 7,2 251-263. 22 Jul. 2016, doi:10.1016/j.jtcme.2016.06.004

<sup>&</sup>lt;sup>15</sup> World Health Organization Report of the Working Group on Auricular Nomenclature. WHO; France: 1990.

<sup>&</sup>lt;sup>16</sup> Wang S.M., Peloquin C., Kain Z.N. The use of auricular acupuncture to reduce preoperative anxiety. *Anesth Analg.* 2001;93:1178–1180.