Chinese Way Of Easing Pain - Acupressure

T LEE

Citation

T LEE. *Chinese Way Of Easing Pain - Acupressure*. The Internet Journal of Anesthesiology. 2000 Volume 5 Number 3.

Abstract

Acupuncture has long proven its efficiency in pain relief around the world, however it is still not widely used in medical settings as part of pain management and is used only when drugs and other methods fail. Acupressure (or Chinese massage) and moxibustion, the cousin of acupuncture, also has a proven record of pain relief and is being used widely in Asia today as part of alternative therapies. The use of acupressure is simple and does not have adverse side effect, in comparison to many drugs. The present paper will discuss the efficiency of acupressure, which can easily be practiced by nurses, in pain management.

INTRODUCTION

Drugs are accepted as mainstream and first line painkillers today. However, the prolonged use of pain killing medication can cause various side effects on some patients (Katzung & Furst, 1998; Carr & Aronoff, 1992; Denson & Katz, 1992; Walter, et. al., 1998), which ultimately lead to illnesses that potentially slow down their recovery rate. For example, opioid analgesics cause side effects such as respiratory depression, constipation, increased intracranial pressure, urinary retention, urticaria and so on. Patients may also be developing dependence and tolerance when opioid analgesics are used chronically. Another example is non-steroidal anti-inflammatory drugs (NASIDs) (Danson & Katz, 1992; Katzung & Furst, 1998). The prolonged uses of NASIDs may cause and increase the likelihood of gastric irritation or even gastric bleeding and ulceration in some patients (Katzung & Frust, 1998; Glauser, 2000). There are also other side effects with the chronic use of these drugs such as asymptomatic hepatitis, increase in serum uric acid level, fluid retention, systematic vascular dilatation, organ failure, cartilage destruction, etc. have been reported (Katzung & Furst, 1998; Glauser, 2000). There are a lot of efforts have been put on developing new NSAIDs such as COX-2 inhibitor that can prevent gastrointestinal complication. Nevertheless the new NSAIDs (COX-2) still share or even have a greater adverse effects than that of NSAIDs outside the gastrointestinal tract, which are dependent on it such as rashes and pruritus (Jackson & Hawkey, 2000; Silverstein, et. al., 2000). There is also report on acute renal failure associated with COX-2 inhibitor in patients who are treated for organ transplantation to reduce tissue rejection (Wolf, et. al., 2000).

According to the World Health Organization, pain is indeed a major public health problem that is often neglected in both developed and developing countries (Jadad & Browman, 1995). The reason for this neglect may be due to various factors including the cost of treatment, inaccurate perception of pain, poor pain assessment, lack of clinical knowledge of pharmacokinetics and equianalgesic dosing; and lack of professional accountability (Jadad & Browman, 1995; Falkenstrom, 1998)

Recently, alternative therapies have emerged and become very popular in the west, particular the use of Chinese Medicine. The increasing cost of health and pharmaceutical products has made them unaffordable and hence unavailable for everyone. With only a limited range of basically the same analgesic products (with little breakthrough) being put on the market in the past few decades (Arnst, et. al., 1999) which often produce little or no effect in some. Many sufferers (especially chronic pain sufferer) begin to turn to other alternative methods, which offer hope in their desperation. The present paper will discuss acupressure (Chinese massage) in terms of its effectiveness and its contribution toward pain management. This paper is also going to discuss acupressure along with acupuncture and moxibustion so that the efficiency and the benefit of stimulating acupoints can be thoroughly explored and compared.

WHAT IS ACUPRESSURE (CHINESE MASSAGE)?

Acupressure (Chinese massage), acupuncture and moxibustion are the primary applications of Traditional Chinese Medicine (TCM). The mode of treatment is by

stimulating the specific acupoints bringing about beneficial physiological effects. The stimulation of these acupoints involves various methods including needle insertion, pressure application and heat. The insertion of needles is well known as acupuncture whilst pressure application is known as acupressure which is also known as Chinese massage. Heat application is called moxibustion, which is usually referred to a method of stimulating acupoints in the form of slow-burning sticks of herbs (O'Hara & Zhan, 1994; Chen, 1999). Although the techniques of the three are different, they are essentially the same as they all involve the stimulation of acupoints in bringing about desire physiological effects.

Acupressure, acupuncture and moxibustion were all originally developed in China thousands of years ago. Over time, the technique was refined and revised accordingly, taking into account rivers of energy flowing throughout the body, known as meridians. This body energy exists internally as well as externally like the field of energy that run through and surround a magnet and the acupoints run along the meridian lines (Chen, 1999; McNamara & Ke, 1995; Long, 1998; Sherwin, 1992). In TCM, these electro-magnetic energies are described as Qi, which originating from two sources and they are prenatal and postnatal Qi. Prenatal Qi is acquired from parents and is the foundation of our constitutional and genetic make up. Postnatal Qi entirely dependent on the individuals after birth with regarding to the food they eat, the water they drink and the air they breathe (McNamara & Ke, 1995; Sherwin, 1992). Yin and yang are the two energies that must be in balance or harmony for the body to function properly. They represent the two opposite material forces and contradiction of the natural phenomena. Yin usually refers to cold, dark, internal organs that are female in nature while yang is often described as heat, light, movement, external organs are maleness (Davis, 1997; O'Hara & Zhan, 1994).

There are 12 meridian lines, 15 collateral, 8 extra channels and hundreds of points for stimulation. Since meridian is interdigitate, therefore the termination of one marks the beginning of another. Each meridian corresponds to a specific body organ or even system (Davis, 1997; Chen, 1999; McNamara & Ke, 1995; Maxwell, 1997). For examples, the 12 main meridian are associated with the lungs, the large intestine, the stomach, spleen, heart, small intestine, urinary bladder, kidney, pericardium, the endocrine glands, the gallbladder and the liver. Whilst, 8 extra channels act like a back up system, which have a reserve pool of energy that can readily supply energy when deficient or take up excess energy. The 15 collateral channels are junction channels with 14 of them interconnecting the main channels and extra channels together with yin and yang (McNamara & Ke, 1995). The remaining one collateral channel is known as the great envelope of the spleen, which joins everything together (Long, 1998; Chen, 1999; O'Hara & Zhan, 1994).

According to TCM, it is believed that the stimulation of specific acupoints along the meridian lines can release muscle tension, increase circulation and allow energy to flow evenly and becoming balanced (Maxwell, 1997), thus alleviate pain or treating disease (Maxwell, 1997; NIH Consensus Development Panel, 1998). Acupoints has been show to be more highly conductive than the surrounding tissues, leading to speculation that there are indeed some biochemical changes brought on by acupoints stimulation which may result in changes of the body's electro-magnetic field (Schulte, 1996; NIH Consensus Development Panel, 1998). Once these energies become unbalanced or blocked, illness occurs. Therefore, the stimulation of the acupoints restores the balance of these energy flows and thus alleviates illnesses.

THE EFFICIENCY OF ACUPRESSURE ON ALTERNATIVE PAIN MANAGEMENT

The discovery of acupressure and acupuncture analgesia proved that they can elicit the release of morphine like substances (endorphins), serotonin or cortisol which can ultimately lead to pain relief and alter the physiological status (Schulte, 1996). In fact, acupressure and acupuncture is being used and has proven useful in pain and addictive management (Schulte, 1996; Hinze, 1988; Cadwell, 1998). Indeed, pain control is one of the most well documented aspects of acupuncture with over one hundred studies published on the subject (Schulte, 1996). Precisely, acupressure, acupuncture and moxibustion work by stimulating or activating (1) the immune system; (2) enkephalin secretion; (3) neurotransmitter release (4) vasoconstriction and dilatation and (5) the gates for pain in the CNS which interpret pain sensation (NIH Consensus Development Panel, 1998; Schulte, 1996). For the latest part, it is believed that stimulation of acupoints can lead to the gates to be overwhelmed by increasing frequency of impulses, therefore ultimately leading to closure of the gates and hence pain reduction (Oumeish, 1998; Cadwell, 1998). It is also believed that acupuncture can stimulate A delta fibres entering the dorsal horn of the spinal cord through connections in the midbrain, enhance descending inhibition

of C fibre pain impulses at other levels of the spinal cord (Vickers & Zollman, 1999).

INTEGRATION OF ACUPRESSURE INTO NURSING PRACTICE

Nurses work in almost any setting and are often associated with people who are suffering from pain. Indeed, nurses as a profession, spend a lot more time with patients who are dealing with pain suffering than any other health care provider (Hinze, 1988). It may be therefore fair to say that nurses are the second line defense system in pain management after drug administration by physicians. In fact, nurses are not only the agent who carry out doctors' orders, but also the ones who implement the orders and the ones who work closely with patients to facilitate the healing processes and treat human responses (Hinze, 1988). Indeed, acupressure can be integrated into the current nursing practice. The skills of acupressure is easy to learn and can be used to help relief various symptoms in a wide range of patient care settings (Maxwell, 1997). Nurses are also able to combine interventions in a complementary way to promote comfort for patients (Lowe, 1996). On the other hand, it is also easy to teach patients how to participate in their own healing both inside the hospital and at home (Ortego, 1994; Maxwell, 1997). Hence, increase the sense of self-awareness and assist them to regain their own independence in which many elderly patients often desire (Lansbury, 2000; Ortego, 1994; Maxwell, 1997).

In comparison of the three techniques, acupressure is probably the most suitable therapy to be practice by nurses and for nurses to teach patients. The reason for this is because acupuncture and moxibustion is difficult and sometime dangerous to practice in hospital setting. Acupuncture requires needle insertions which practitioner must pass through a series of in depth professional training and years long of studies before they are allowed to carry out their practice. Patients will not be able to learn in a short few sessions' demonstration and acupuncture could post potential injuries if patients use in correctly. Furthermore, acupuncture is an invasive practice, which involves the insertion of needles into the body tissues that in turn increase the likelihood of its related complication. There are also many reported adverse effects of acupuncture, which are serious or even fatal when acupuncture is not applied appropriately (Yamashita, et. al., 1999). Onizuka, et. al. (1998) reported a lethal case of streptococcal toxic shock-like syndrome (streptococcal myositis) in a man who received acupuncture treatment for arthralgia. Choo & Yue (2000) also reported an acute intracranial hemorrhage case caused by acupuncture in a Chinese man. There are also other reported cases of adverse effect due to the use of acupuncture, they are persistent argyria; angina; vertebral osteomyelitis; pneumthorax; septic sacroilitis; and so on (Ernst & White, 2000; Yamashita, et. al., 1999). However, Yamashita, et. al. (1999) argued that these severe reported side effects of acupuncture, majority of them may be due to negligence rather than caused by acupuncture. Ernst & White (2000) said that standardization and maintaining professionalism of acupuncture practice among practitioner may be possible to reduce these occasional associated serious adverse and fatal events.

Whilst moxibustion requires burning up of herb sticks which may cause fire or burn injuries, especially when patients (and specially the elderly patients) are taught to use it at home by themselves. In addition lighting up herbs and causing smoke are both dangerous in hospital since there is always a possibility of fire happening and some patients may be allergic to burning herb smoke. Up till now, there has not been many research done in evaluating the possible adverse effects (such as prolonged burning herbs smoke inhalation and the possibility of patients being severely burned) of moxibustion practice as medical treatment. Nurses are expected to consider these factors thoroughly before using them (Yamashita, et. al., 1999). As a result, when compared the two, acupressure is the least invasive and perhaps the safest since it only involves the contact (or touch) of the patients' body through massages.

One of the most researched areas in acupressure and acupuncture is its efficacy in postoperative care. Felhendler & Lisander (1996) found that the stimulation of acupoints after 60 minutes and 24 hours in forty patients who underwent knee arthroscopy, there was a significant reduction in pain than in the placebo group which indicated that acupressure can indeed successfully decrease postoperative pain. Ballegaard et. al. (1996) also found that combination of acupuncture, shiatsu and lifestyle adjustment might be highly cost effective for patients with advanced angina.

Acupressure, acupuncture and moxibustion for labor pain management is another one of the most researched areas. Jin et. al. (1996) found that the combination of drugs with acupuncture is an excellent combination therapy with 97.5% effectiveness in inducing painless labor by increasing the pain threshold and the tolerance of uterine contractions. Beside that, by inducing painless labor, it also help to

regulate the incoordinate uterine action and improve the hypertonic status of the uterus which is important for a safe and healthy delivery. Since it can also help to restore the appropriate levels and harmonious free-flowing function of the five elements, which in turn assists to balance the whole person and enhance the body's own innate mechanisms for healing as well (Cook & Wilcox, 1997). Beside acupressure and acupuncture, moxibustion can also used by nurses to help release the stress of patients in labor. Nurses can make their own moxa and practice moxibustion during the early part of labor (Cook & Wilcox, 1997). Acupuncture and acupressure, as well as moxibustion, stimulates the release of oxytocin from the pituitary gland, which then directly stimulates uterine contractions and facilitate labor (Cook & Wilcox, 1997). Western nurses can apply acupressure to give maximum comfort for patients during labor. Nurses can administrate acupressure on acupoints that are known to release symptoms of labor pain and hence reduce the suffering of the patients during birth giving. The nurses should try several acupoints to see which are working best for the patients. The nurses need to listen carefully to the patient as she determine as to whether "stronger" or "more gentle" pressure is needed. During a contraction, push with two or three fingers on the acupoints that are working for the patients (Cook & Wilson, 1997). On the other hand, the use of acupressure provides a bodymind approach to pain management, which provide a unique processing method in mental health counselling. As a result, it can provoke a smooth claim-soothing environment for the mother while delivering (Ortego, 1994).

Despite the mentioned studies above, there are various studies that have been done to examine the efficacy of acupressure in pain management. Garvey et. al. (1989) suggested that direct mechanical stimulus to trigger-point by acupuncture or acupressure give symptomatic relief equal to that of the best available medication. Acupressure can also replace or reduce the amount of outpatient prescriptions for headache analgesia (Kurland, 1976; Bonnie, 1995). The reduction in the use and dependence on analgesic agents is perhaps one beneficial use of acupressure. It is especially useful for patients who have renal or hepatic problems or for children who cannot be treated with high doses of analgesic agents so patients do not need to suffer severe pain which can prolong the recovery rate (Rose & Watcha, 1999). Nurses therefore need to recognize the types of discomfort that are experienced by patients and hence assist them in finding comfort (Carr & Thomas, 1997) instead of being overly dependent on drugs.

Beside pain management, acupressure before and acupuncture after anesthetic induction has been show to have a very beneficial effect on the prevention of post-operative nausea and vomiting in which could largely minimize the use of antiemetic drugs (Shenkman, et. al., 1999; Ferrara-Love et. al., 1996). Fessele (1996) & Dibble et. al. (2000) also found acupressure to be useful in treating nausea and vomiting in-patients with cancer. According to NIH Consensus Development Panel (1997), acupuncture is also effective against chemotherapy nausea and vomiting, nausea in pregnancy, dental pain, adjunct therapy, addiction, stroke rehabilitation, headache, menstrual cramps, tennis elbow, fibromyalgia, low back pain, carpal tunnel syndrome, asthma and so forth.

Although there are numerous studies showing support for acupressure, acupuncture and moxibustion, there are also many studies criticizing its efficiency in treating symptoms they claim to be able to treat. O'Brien et. al. (1996) found that it was ineffective when using P6 acupressure in the treatment of nausea and vomiting during pregnancy in women. Gosman-Hedstrom et. al. (1998) also argued in his study that acupuncture may not have such a beneficial effect on acute stroke patients' ability to perform as some of the studies (Chen & Fang, 1990; Chen, 1993; Chen, 1993) claimed earlier.

CONCLUSION

There is much evidence, which supports acupressure could potentially produce analgesic effect among patients who are suffering from pain due to various reasons. The use of acupressure is simple and without many side effects like pain medications do. However, there are concerns as to how to integrate acupressure into current tight nursing practice schedule. Although there are lots of benefits for practicing acupressure as part of nursing practice, it is important to realize that it may be impossible for nurses to spend time in treating patients with acupressure when each session may take from 5 to 15 minutes. If nurses are to spend time with patients in providing acupressure treatment, then it may be extremely stressful for nurses to add extra work to their current busy working schedules. It may be necessary to include separate nursing discipline in acupressure so that it is possible for hospital to create new nursing position for nurses who provide acupressure practice.

ACKNOWLEDGEMENT

Thanks for the inspiration of Dr Samantha Pang from The Hong Kong Polytechnic University for giving me the

opportunity to write this paper. I also need to thank David John Padula from the University of Adelaide for assisting with editing English grammar as well as giving me opinions of the topic. Lastly, I would also like to thanks Dr Joseph T H Lee from University of North Florida for giving me support during the course of writing up the present paper.

PRIMARY AUTHOR:

Tse Yan Alexander LEE

Corresponding Address: F/F, 2/F, Lung Kee Build., 3 Poplar St., Mongkok,

Kowloon, Hong Kong

Australia Corresponding Address: P O Box 678, Mitcham, 5063, S.A., Australia.

HKSAR Fax Number: +852 2398 9060

Corresponding E-mail: fatpig@picknowl.com.au

References

r-0.
r-1.
r-2.
r-3.
r-4.
r-5.
r-6.
r-7.
r-8.
r-9.
r-10.
r-11.
r-12.
r-13.
r-14.
r-15.
r-16.
r-17.
r-18.
r-19.
r-20.
r-21.
r-22.
r-23.
r-24.
r-25.
r-26.
r-27.
r-28.
r-29.
r-30.
r-31.
r-32.
r-33.
r-34.
r-35.
r-36.
r-37.
r-38.
r-39.
r-40.
r-41.
r-42.
r-43.
r-44.
r-45.

Author Information

Tse-Yan Alexander LEE
Faculty of Applied Social and Health Science, The Department of Nursing and Health Sciences, The Hong Kong Polytechnic University