Volume 6, No. 4 • Fall 2019

JASA

The Journal of the American Society of Acupuncturists

INSIDE

OFFICIAL JOURNAL of the American Society of Acupuncturists

Thank you!

JASA is here because of YOU—our authors, our Editorial Board, JASA's supporting organizations & associations, our advertisers and our readers!

CCAOM
Council of Colleges of Acupuncture and Oriental Medicine

ACAOM
Accreditation Commission for Acupuncture & Oriental Medicine

American Society of Acupuncturists

NCCAOM
NATIONAL CERTIFICATION COMMISSION FOR ACUPUNCTURE AND ORIENTAL MEDICINE

JASA EDITORIAL BOARD

JASA
The Journal of the American Society of Acupuncturists

JASA
357 S. Landmark Ave. Bloomington, IN 47403

www.meridiansjaom.com

meridiansjaom@gmail.com
https://www.facebook.com/MeridiansJournal

ISSN 2377-3723 (print)
ISSN 2377-3731 (online)

CONTENTS

Volume 6, No.4 · Fall 2019

ORIGINAL RESEARCH

CASE REPORTS

PERSPECTIVES

CLINICAL PEARLS

Cover: Frost covering heuchera leaves. © Maksim Shebeko

Like us on Facebook! https://www.facebook.com/MeridiansJournal

JASA
The Journal of the American Society of Acupuncturists

Letter from Editor in Chief Jennifer A. M. Stone, MSOM, LAc

JASA welcomes letters to the editor from our readership. Please send them to meridiansjaom@gmail.com and be sure to include your full name and any licenses and/or titles, your phone number, and email address.

Dear Colleagues,

Most of us choose to study Chinese medicine because we want to help people. So naturally, most LAcs in the U.S. prefer to focus their time treating patients in the clinic.

Fortunately, our profession includes some dedicated activists who work collaboratively to effect change in the culture of western mainstream medicine. The boards of our profession's leading organizations are run primarily by acupuncturists who volunteer their time to this cause.

These tireless practitioners know how important it is to include widespread, easy public access to acupuncture and Chinese medicine. If you are passionate about the integration of AOM and other important issues, please consider joining the board of a national organization or the board of your local state association. At the very least, please consider joining your state association and support the activists' efforts. It's OK, not everyone is an activist, but the activists need money and resources to do the best job they can do for you.

Here's a list of the leading core organizations that are the hub of our profession.

The Professional Member Organization: ASA

The ASA advocates, lobbies, and fights for the entire profession, including the practitioners, the leading organizations, AOM students and faculty, and our vendors and suppliers.

The American Society of Acupuncturists (ASA) is a federation of 34 qualifying state acupuncture associations that collectively represent over 5,000 licensed acupuncturists in the U.S. Its membership is growing daily. The ASA evolved from a group called the President's Council that began to meet and collaborate in the mid '90s at American Association of Acupuncture and Oriental Medicine (AAAOM) conferences. In 2009, the group changed their name to the Council of State Associations (CSA) and began a listserv so representatives from the participating state associations could troubleshoot problems and share ideas.

In 2012, the AAAOM folded due to mismanagement and by 2014, strategic planning was done, by-laws were prepared, and the CSA officially became the ASA, the official membership organization for all licensed acupuncturists in the U.S. The ASA is funded by dues that the individual states pay for each member in their association. When you join your state association, you are automatically a member of the ASA. www.asacu.org

The Certifying Agency: NCCAOM

The National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM) was established in the late '80s and is the certifying agency for acupuncturists in the U.S. Their primary activity is to *manage certification, recertification and continuing education*. The NCCAOM represents over 18,000 active diplomates who, after completing 60 hours of NCCAOM approved continuing education, pay a fee and recertify every four years. (Please Note: NCCAOM certification is not required in all 50 states). NCCAOM's income comes from exam fees, recertification fees, and fees collected from providers of continuing education.
www.nccaom.org

The Accreditation Commission: ACAOM

The Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM) is a non-profit organization accredited by the U.S. Department of Education. Its mission is to serve as the nationally recognized accrediting agency for schools and colleges teaching acupuncture and Oriental medicine (AOM) as well as institutions exclusively providing AOM-related programs and degrees. Their income source is from fees the schools pay to become and stay accredited. www.acaom.org

Council of Colleges: CCAOM

The Council of Colleges of Oriental Medicine is a 501(c)(6) voluntary membership association for acupuncture schools and programs in the U.S. Established in 1982, the Council's primary mission is to support member institutions to deliver educational excellence and quality patient care in school clinics. Their income source is from schools that pay a membership fee. www.ccaom.org

The Research Society: SAR

The Society of Acupuncture Research is a non-profit voluntary membership organization of researchers, educators, students, acupuncturists, healthcare practitioners, and members of the public. SAR institutional members are organizations that directly support the unique and important mission of SAR, recognizing that the promotion of scientifically sound research into acupuncture and Oriental medicine may directly support their own organizational goals. SAR's income comes source is from individual membership fees.
www.acupunctureresearch.org

The Scholarly Journal: JASA

JASA, the *Journal of The American Society of Acupuncturists,* is the *ONLY peer-reviewed scientific journal devoted to acupuncture and traditional Chinese medicine in the U.S.* Scholarly journals are necessary because they provide evidence for the effectiveness of medical treatments. Scholarly articles are written by researchers, experts, and DAOM students. These papers follow the requirements for scientific structure and specialized vocabulary. They have extensive citations and are peer-reviewed by researchers in this field. *JASA* is published quarterly by the ASA and is a member benefit for approximately 5,000 state association members.
www.meridiansjaom.com

AOM Trade Magazines:

A trade magazine, also called a trade journal or trade paper, is a printed or online magazine or newspaper whose target audience is people who work in a particular trade or industry. Trade publications may be written by experts in a certain industry, but they are not considered scholarly since they share general news, trends, and opinions, rather than advanced research. their articles may contain some research, but, importantly, they are not peer-reviewed. My personal favorite is *Acupuncture Today*.
www.acupuncturetoday.com

Please enjoy this fall issue of *JASA*. The papers are authored by LAcs and peer-reviewed by LAcs. We also feature Clinical Pearls, a report on the Society for Integrative Oncology conference held last October and a response to the U.S. Centers for Medicare & Medicaid Services.

Respectfully,

Jennifer A. M. Stone, MSOM, LAc
Editor in Chief, JASA

The ASA is now a member of the American Medical Association (AMA) Health Care Professionals Advisory Committee (HCPAC)!

Join the ASA so your voice is heard!

See p. 44 and JASA's letter from the Editor in Chief, p. 2, for more details.

Our Extensive Chinese Herbal Formula Line Includes:

Kan Herbals
Kan Traditionals
Kan Essentials
Chinese Modular Solutions
Gentle Warriors
Sage Solutions
Jade Woman/Jade Man Herbals
MycoHerb
Alembic Herbals
Kan Singles

Kan Herb COMPANY

CHINESE HERBAL PRODUCTS YOU CAN TRUST

380 Encinal Street, Suite 100 • Santa Cruz, CA 95060
800.543.5233 • customer@kanherb.com • www.kanherb.com

Scientifically Assured Quality, Consistency, Potency and Purity.

All formulas are manufactured and tested exclusively in the USA from imported Chinese herbs.

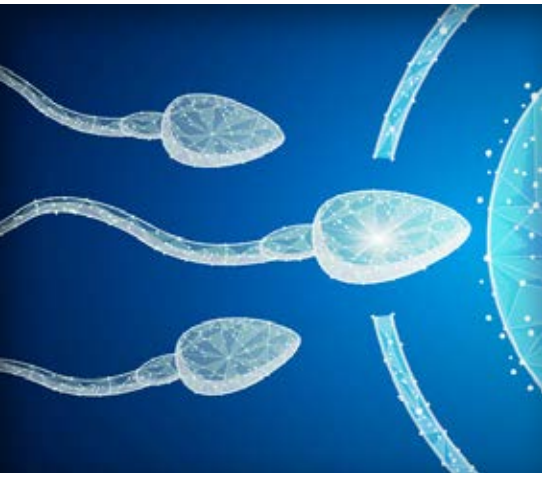
Only the freshest and highest quality herbs are procured, many of them organic when possible.

Identity testing is performed to ensure that the right herb is being used every time.

Quality control tests and examinations are performed on all incoming ingredients.

Quality control tests and examinations are performed at every stage of production.

Because we manufacture our products from beginning to end at our state of the art facility in California, we ensure that the quality of our products is guaranteed every time.



Idiopathic Male Infertility: The Biomedical and TCM Status Quo Part One

By Janel Gehrke, DAOM, LAc, Dipl OM (NCCAOM), FABORM

Dr. Gehrke completed her Master's in traditional Oriental medicine graduating Summa cum laude from Emperor's College of Traditional Oriental Medicine in 2015. She completed her Doctorate in Acupuncture and Oriental Medicine in 2019. Janel's doctoral capstone project discusses the use of acupuncture as a treatment for idiopathic male infertility. In addition to her doctoral fellowship, she also completed a fellowship with the American Board of Oriental Reproductive Medicine (ABORM). Her acupuncture practice in Santa Monica, California, focuses on fertility, cosmetic acupuncture, and pain management.

Abstract

Recent research shows a decline in overall male fertility, an increasing trend in advanced paternal age, and a link between these factors and an increased risk of cancer. Typical treatment options for men with suboptimal sperm numbers are limited and often costly; however, research shows that acupuncture can have a positive effect on sperm quality and quantity. Discussed here is Part One of an overview of male fertility diagnostics and treatment options from both biomedical and Chinese medical perspectives. Part Two will examine the current available literature to determine if acupuncture is a viable treatment option for patients with idiopathic male infertility.

Key words: Oligospermia, acupuncture, male fertility, male infertility, idiopathic male infertility

Introduction

Male fertility issues affect "at least 30 million men worldwide"[1] according to Agarwal et al; however, accurate statistics are limited. Data is typically only collected from those having difficulty trying to conceive with their partner which excludes a significant portion of the global male population. The World Health Organization (WHO) defines clinical infertility as the inability of a sexually active, non-contracepting couple, within reproductive age, to achieve pregnancy after one year of trying.[2] In females, reproductive age is considered between 15 and 49 years old.[3] In comparison, the reproductive age for males is significantly longer. Males begin to produce sperm once they enter puberty and continue to do so throughout their lives; however, there is increasing evidence showing reduced fecundity in males over the age of 40, specifically in regard to motility and morphology.[4] According to Sharma et al., the first parameter to be affected by age is the total sperm number which occurs at or near age 34, followed by a decline in concentration and normal morphology by age 40, a decrease in motility by age 43, and decrease in ejaculate volume by age 45.[5]

In the event of suspected infertility, a couple is likely to seek out a reproductive endocrinologist who would evaluate both partners. The most common parameters tested in cases of male infertility are in reference to concentration/quantity, morphology/quality, and motility of sperm within ejaculate. *The World Health Organization Laboratory Manual for the Examination and Processing of Human Semen* 5th edition uses the following terminology: oligozoospermia, teratozoospermia, and asthenozoospermia respectively.[6] Table 1 defines WHO nomenclature related to semen quality.

Table 1. Nomenclature related to semen quality

aspermia	no semen (no or retrograde ejaculation)
asthenozoospermia	percentage of progressively motile (pr) spermatozoa below the lower reference limit
asthenoteratozoospermia	percentages of both progressively motile (pr) and morphologically normal spermatozoa below the lower reference limits
azoospermia	no spermatozoa in the ejaculate (given as the limit of quantification for the assessment method employed)
cryptozoospermia	spermatozoa absent from fresh preparations but observed in centrifuged pellet
haemospermia (haematospermia)	presence of erythrocytes in ejaculate
leukospermia (leukocytospermia, pyospermia)	presence of leukocytes in the ejaculate above the threshold value
necrozoospermia	low percentage of live, and high percentage of immotile, spermatozoa in the ejaculate
normozoospermia	total number (or concentration, depending on outcome reported)* of spermatozoa, and percentages of progressively motile (pr) and morphologically normal spermatozoa, equal to or above the lower reference limits
oligoasthenozoospermia	total number (or concentration, depending on outcome reported)* of spermatozoa, and percentages of progressively motile (pr) spermatozoa, below the lower reference limits
oligoasthenoteratozoo-spermia	total number (or concentration, depending on outcome reported)* of spermatozoa, and percentages of both progressively motile (pr) and morphologically normal spermatozoa, below the lower reference limits
oligoteratozoospermia	total number (or concentration, depending on outcome reported)* of spermatozoa, and percentage of morphologically normal spermatozoa, below the lower reference limits
teratozoospermia	percentage of morphologically normal spermatozoa below the lower reference limit

*Preference should always be given to total number, as this parameter takes precedence over concentration.

Reformatted from [6]

"The diagnostic protocols for IMI are comprehensive and often extensive. A thorough patient history should be taken by the reproductive endocrinologist or fertility specialist, inquiring about recent illnesses, previous surgeries/procedures, or traumas."

When discussing male infertility, the term "idiopathic" refers to men who have abnormal semen analysis with no known cause. There is noted dysfunction in either concentration/quantity, morphology, or motility of sperm, with no noted or identifiable cause such as a history of chronic illness, traumatic injury, genetic defect, or use of medications that affect spermatogenesis. In these patients, all physical examinations and endocrine laboratory findings are normal and there is no history of fertility issues.

It should be noted that, although both are of unknown etiology, there is a very clear distinction between a diagnosis of idiopathic male infertility (IMI) as stated above and unexplained male infertility (UMI). The latter presents with a semen analysis that is normal, all female infertility factors have been ruled out, and conception remains unsuccessful. UMI comprises up to 27% of unknown male infertility cases, while IMI comprises up to 31% of infertile males.[7]

The diagnostic protocols for IMI are comprehensive and often extensive. A thorough patient history should be taken by the reproductive endocrinologist or fertility specialist, inquiring about recent illnesses, previous surgeries/procedures, or traumas. This is followed by an investigation into the patient's family history looking for patterns of infertility, maternal exposure to Diethylstilbestrol (DES),[i] but also specific conditions such as cryptorchidism,[ii] midline defects,[iii] or hypogonadism, [iv] hypospadias,[v] or other congenital abnormalities.

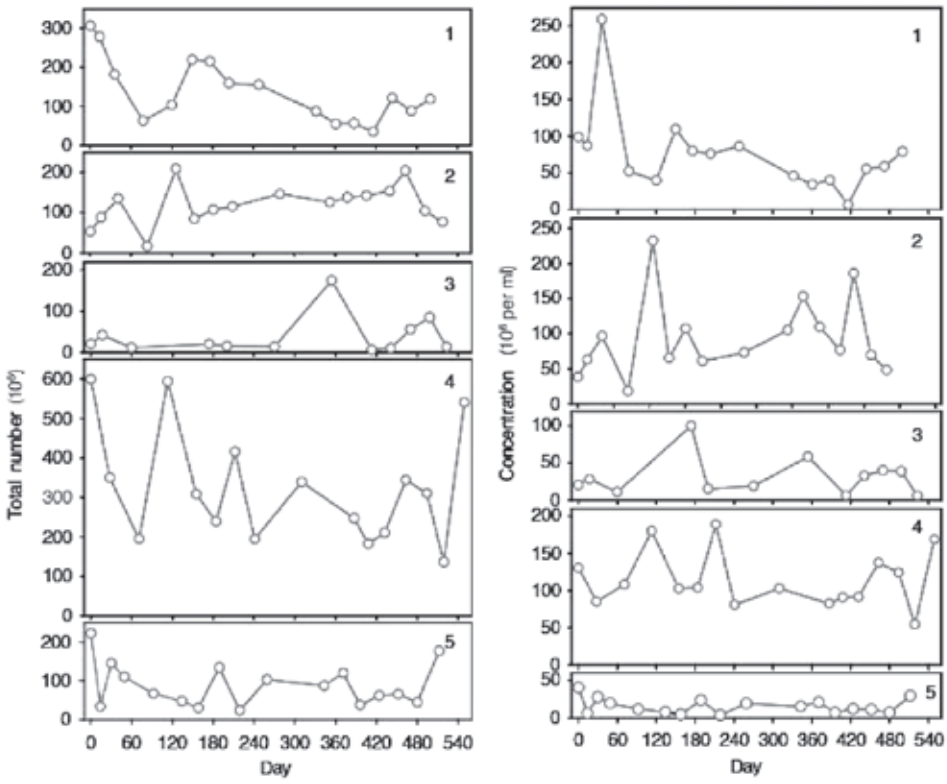
The patient's past and present lifestyle also needs to be examined for elements such as the use of recreational drugs, alcohol, anabolic steroids, nutritional deficiencies, and sexual history (history of sexually transmitted infections, use of spermicidal foams, etc.) In addition, the use of or exposure to certain medications should be considered as several have been reported to interrupt spermatogenesis and therefore impact fertility.[8]

Finally, environmental factors such as exposure to pesticides, solvents, extreme temperatures, heavy metals, radiation, and many other factors should also be ruled out.[9]

In addition to a detailed patient history, a semen analysis is an integral part of male fertility assessment. As shown in Figure 1, there can be significant variances in both sperm quantity and concentration over the course of one year. For this reason, two to three separate samples are taken over a period of approximately three months. As stated by the WHO, "it is impossible to characterize a man's semen quality from examination of a single semen sample."[6]

The process of human spermatogenesis takes approximately 69 days[10] and the optimal environment is 34 degrees Celsius.[11] The testes are a temperature sensitive environment; therefore, consideration should be taken regarding the patient's health and lifestyle during the previous three months of the sample being examined. Febrile events,[12] exposure to environmental toxins, and/or consumption of chemicals that affect spermatogenesis will have a greater effect at earlier points of spermatogenesis.[13] Multiple samples over a three month period may offer a more comprehensive overview of the assessed values.

Figure 1. Variation in total number of spermatozoa and sperm concentration in five men over a one-and-a-half-year period[6]



Typical options are sample retrieval from masturbation either in clinic or at home, or postcoital with a doctor provided non-latex condom. Any samples collected outside of a clinical setting must be collected and stored in a sterile container, kept at body temperature, and transported to the clinic for examination within one hour.[6] Studies show the results of semen analysis is affected by both the method and timing of collection, and this should be considered when collecting semen samples.[14,15,16]

The WHO assesses several criteria within a semen sample when examining fertility parameters, some of which are the volume of ejaculate, concentration, and quantity, quality, and motility of spermatozoa within a semen sample, pH of semen, agglutination, and vitality of spermatozoa.[6] In an optimal sample, the volume of ejaculate should be greater than or equal to 1.5 milliliters.

Ideally, there are at least 15 million sperm per milliliter, which reflects the concentration of sperm, and the total sperm number will be calculated by determining the product of the ejaculate volume and the concentration. A minimum of 32% show progressive forward motility (PR), while total motility [PR + non-progressive moving (NP)] is at least 40%. The lower reference limit for sperm morphology if analyzed with the specific techniques described in the fifth edition of the *WHO Laboratory Manual for the Examination and Processing of Human Semen* is 4%.[6] All WHO sperm values mentioned above are summarized in Table 2. Patients with IMI may present with one or more of these values below desired levels in one or more samples over a three month period.

Table 2. WHO sperm values summary[6]

Volume	≥1.5 mL
Concentration	≥15 million
Total Number	Volume x Concentration
Motility	32%PR; 40% total
Morphology	≥4%

Current biomedical options for IMI patients include sperm aspiration from either the vas deferens (PVSA, MVSA),[vi] the epididymis (MESA, PESA),[vii] or the testicle (TESA, TESE, or Micro-TESE).[viii] Typically the above listed procedures are completed as outpatient procedures with minimal recovery time.[17]

The retrieved sperm will then be assessed for viability in one of the following assisted reproductive techniques (ART): intrauterine insemination (IUI),[ix] intracytoplasmic sperm injection (ICSI),[x] or in vitro fertilization (IVF). In addition to the chosen ART cost, the cost of sperm aspiration techniques depends on the complexity of the technique required and varies widely throughout the U.S.

Traditional Chinese medicine (TCM) has had excellent anecdotal success treating male infertility, and many couples trying to conceive include TCM as a complement to their allopathic medical care. Early acupuncture is documented as far back as 90 B.C.[18] Since that time, the process has been greatly refined and over the last several decades, a great amount of scientific research on it has helped to prove its efficacy.

In more recent history, acupuncture has gained popularity for a variety of concerns, including fertility. Research is showing promising results on the efficacy of acupuncture for a multitude of fertility issues, including IMI. Jane Lyttleton discusses the positive effect of acupuncture on met-enkephalin levels, which are responsible for the motility of sperm within semen.[19] Yu et al. noted a significant increase in count and motility using transcutaneous electrical acupuncture point stimulation (TEAS).[20] Siterman et al. noted a positive effect of acupuncture on three parameters; percentage of sperm viability, total number of motile spermatozoa, and total functional sperm fraction (TFSF).[21] Zhang et al. concluded that "acupuncture can improve sperm quality and fertilization rates in assisted reproductive technology."[22]

Acupuncture in conjunction with moxibustion was found to significantly increase normal-form sperm percentages according to Gurfinkel et al.[23] Siterman et al. found that men with decreased sperm density related to genital tract inflammation could benefit from acupuncture.[24] Wang et al. concluded electro acupuncture combined with a Chinese herbal formula can improve semen quality in patients with oligospermia and asthenospermia.[25]

As mentioned above, certain values within a semen analysis below normal range are part of the diagnostic criteria for IMI. The aim of acupuncture treatment in these cases is to optimize sperm numbers. The diagnostic focus in TCM is on determining a possible root cause of the asthenospermia, teratospermia and/or oligospermia by assessing the patient's constitution and current presentation of symptoms. Similar to the above mentioned intake process, a TCM intake covers many, if not all, of the same criteria. The information gathered in the intake, in addition to any objective data collected from lab evaluations (CBC with differential, semen analysis, nutritional and/or food sensitivity panels, etc.), acts as evidence to support a TCM diagnosis. Once a diagnosis has been made, treatment modalities such as acupuncture and adjunctive techniques (electro-stimulation, moxibustion, *gua sha*, cupping), herbal medicine, supplements, and/or lifestyle modifications will be chosen that best address the diagnosis.

Some experts state an initial treatment course should be six months in duration to account for the spermatogenesis cycle taking approximately three months;[19] however, several studies show positive results treating IMI with a treatment course as short as 10 weeks with biweekly treatment.[21,26–28] Outcomes are directly dependent on patient compliance; therefore, the patient must be committed to completing the entire treatment course to achieve optimal results. Needle retention times vary between practitioners but tend to be in the range of 25-45 minutes per session[21,26–28] and points chosen vary based on the patient diagnosis.

The most common TCM diagnoses seen in IMI can be divided into two categories: Excess or Deficiency. Excess implies that there is a pathogenic factor impeding spermatogenesis and/or the delivery of sperm through the genital tract. Any detectable obstruction, for example, vasectomy reversal, varicocele/hydrocele repair, trauma, tumors, or other duct abnormalities, would exclude the patient from the category of IMI; however, it is possible for a patient to experience idiopathic obstructive azoospermia[29] or have another type of undetectable blockage.

The TCM diagnosis for any obstruction within the genital tract is considered stagnation of *qi*, and/or stasis of Blood. Another Excess factor that could impede proper spermatogenesis in IMI patients is inflammation. The presence of reactive oxygen species (ROS)[xi] is "a major contributing factor identified as a leading cause for the progression of IMI."[31] According to Tremellen, ROS[xi] can decrease sperm motility and hinder its ability to penetrate the oocyte and can directly damage sperm DNA.[32] The TCM diagnosis associated with inflammation in the genito-urinary system is either heat or damp heat. Any of these Excess conditions can present individually or concurrently.

Cases of Deficiency include those in which the primary organ systems involved in reproduction are not performing optimally. In reference to male fertility, the primary TCM organ system most frequently involved in Deficiency cases is the Kidney system. The TCM Kidney system, which is differentiated from the anatomical kidney organ, strongly influences fertility. Some would argue the Kidney system includes the ovaries in women and the testes in men, in addition to some pituitary function related to reproduction, for example the release of FSH[xii] and LH[xiii].[19]

The Kidneys are said to store *jing*, which encompasses not only the reproductive system itself but also the virility of that system. Therefore, even if all of the physical organs are functioning within normal range, if there is a lack of energy within the system, infertility may result. The Kidney system is also associated with the seminal fluid which is considered a *yin* fluid and the sperm, which are considered *yang*. The fluid is referred to as *yin* because it contains and nourishes the sperm, while the sperm are referred to as *yang* because they are filled with vitality and movement. If there

continued on page 10

is a lack of fluids or the fluid is lacking certain nutrients, the TCM pathology would be called a *yin* Deficiency. If there is a problem with sperm numbers and/or motility, it would be considered a *yang* Deficiency. If the genetic makeup of the sperm is defective, it could be considered *jing* Deficiency.

It is possible for Excess and Deficiency pathologies to overlap; often one imbalance will lead to another. For example, a patient with a TCM diagnosis of Heat may have resulting damage to DNA from ROS. This could be considered a *jing* Deficiency resulting from Excess Heat. In a similar example, the prostate gland produces less fluid as a result of smooth muscle atrophy over time.[33] The Heat diagnosis could be caused from a lack of cooling fluids from the prostate gland (part of the Kidney system) resulting in a diagnosis of Kidney *yin* Deficiency Heat. The end result may be the same—damage to DNA from ROS; however, the pathogenesis of the Heat is different.

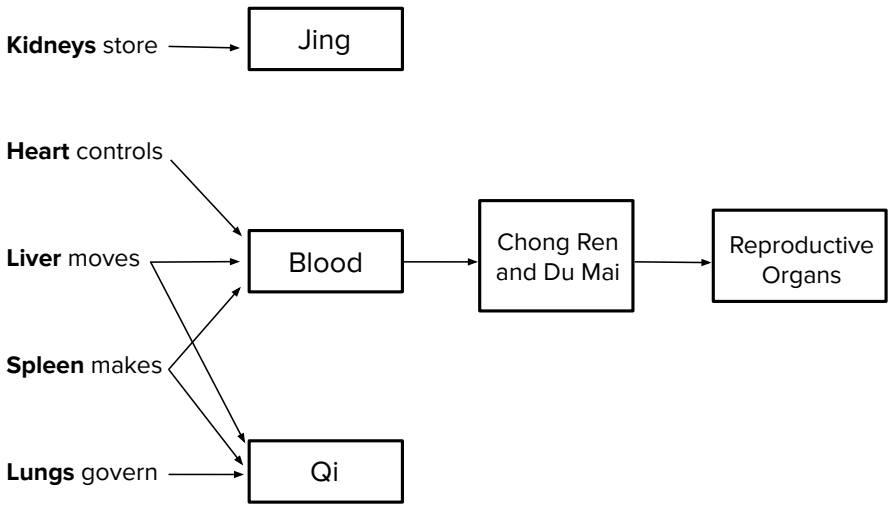
In her book, *The Infertility Cure*, R. Lewis states that any Excess condition is usually the result of an underlying Kidney Deficiency[34] and recommends addressing both the *yin* and *yang* of the Kidney system in almost all male fertility cases. Due to the holistic nature of TCM, there are several other organs systems that could be involved and/or affected by a Kidney system imbalance with an infertility patient. Figure 2 shows the complex relationship between those organ systems and the vital substances associated with each.

The decline in male fecundity over the last several decades has been shown in several studies. A meta-analysis done by Levine et al. shows a 52.4% decline in sperm concentration as well as a 59.3% decline in total sperm count between 1973 and 2011.[35] However, the study of fertility, specifically paternity, has greater implications than the inability to reproduce. The overall decline in male reproductive health is recently being linked to other male health concerns such as cancer.

A 2013 study by Eisenberg found that men diagnosed with azoospermia "were 1.7 times as likely to develop cancer as men in the general population."[36] There is also evidence to support a decline in sperm DNA quality in men of advanced paternal age increasing the likelihood of miscarriage, fetal loss, single gene disorders, and congenital anomalies in which the authors conclude "advanced paternal age is associated with increased genetic and epigenetic risk to offspring."[37] It should also be noted that the standard semen analysis does not offer a measurement on spermatozoa fertilization potential,[38] which could be a significant factor in many infertility cases, including cases of IMI.

The absence of a known cause for the declining fertility numbers results in limited treatment options within a conventional medical model based on objective data alone. Even with all of the challenges facing potential parents and researchers, acupuncture is showing promising results in the treatment of IMI. Part Two of this paper includes a literature review of two available studies between 2005 and 2018 using specifically acupuncture for the treatment of idiopathic male infertility.

Figure 2. TCM Organ Systems and Associated Vital Substances



Modified from [19]

"The absence of a known cause for the declining fertility numbers results in limited treatment options within a conventional medical model based on objective data alone. Even with all of the challenges facing potential parents and researchers, acupuncture is showing promising results in the treatment of IMI."

References

1. Agarwal A, Mulgund A, Hamada A, Chyatte MR. A unique view on male infertility around the globe. Reprod Biol Endocrinol. 2015;13:37. Published 2015 Apr 26. doi:10.1186/s12958-015-0032-1
2. WHO | Infertility definitions and terminology. October 2016. http://www.who.int/reproductivehealth/topics/infertility/definitions/en/. Accessed August 27, 2018.
3. WHO | Infertility definitions and terminology. October 2016. http://www.who.int/reproductivehealth/topics/infertility/definitions/en/. Accessed August 27, 2018.
4. Harris ID, Fronczak C, Roth L, Meacham RB. Fertility and the aging male. *Rev Urol*. 2011;13(4):e184-e190.
5. Sharma R, Agarwal A, Rohra VK, Assidi M, Abu-Elmagd M, Turki RF. Effects of increased paternal age on sperm quality, reproductive outcome and associated epigenetic risks to offspring. *Reprod Biol Endocrinol*. 2015;13:35.
6. World Health Organization. *WHO Laboratory Manual for the Examination and Processing of Human Semen*.; 2010.
7. Hamada A, Esteves SC, Agarwal A. Unexplained male infertility. *Human Andrology*. 2011;1(1):2-16.
8. Ding J, Shang X, Zhang Z, et al. FDA-approved medications that impair human spermatogenesis. Oncotarget. 2017;8(6):10714–10725. doi:10.18632/oncotarget.12956
9. Oliva A, Spira A, Multigner L. Contribution of environmental factors to the risk of male infertility. Hum Reprod. 2001 Aug;16(8):1768-76. doi: 10.1093/humrep/16.8.1768. PubMed PMID: 11473980.
10. Gilbert SF. Developmental Biology. 6th edition. Sunderland (MA): Sinauer Associates; 2000. Spermatogenesis. Available from: https://www.ncbi.nlm.nih.gov/books/NBK10095/
11. Website. (https://www.merckmanuals.com/professional/gynecology-and-obstetrics/infertility/sperm-disorders). Accessed April 29, 2019.
12. Carlsen E E al. History of febrile illness and variation in semen quality. - PubMed - NCBI. https://www.ncbi.nlm.nih.gov/pubmed/14507826, . Accessed April 29, 2019.
13. Website. https://onlinelibrary.wiley.com/doi/full/10.1111/andr.12198. Accessed April 29, 2019.
14. Zavos PM, Goodpasture JC. Clinical improvements of specific seminal deficiencies via intercourse with a seminal collection device versus masturbation. Fertil Steril. 1989 Jan;51(1):190-3. doi: 10.1016/s0015-0282(16)60455-7. PubMed PMID: 2910712.
15. Elzanaty S, Malm J. Comparison of semen parameters in samples collected by masturbation at a clinic and at home. *Fertility and Sterility*. 2008;89(6):1718-1722. doi:10.1016/j.fertnstert.2007.05.044
16. Elzanaty S. Time-to-Ejaculation and the Quality of Semen Produced by Masturbation at a Clinic. *Urology*. 2008;71(5):883-888. doi:10.1016/j.urology.2007.12.009
17. Website. (https://www.theturekclinic.com/sperm-retrieval-ivf-success-rates/). Accessed April 29, 2019.
18. Unschuld PU. Chapter 2. *Medicine in China: A History of Ideas*. London, UK. Univ of California Press; 2010. Page 45.
19. Lyttleton J. Chapter 7. *Treatment of Infertility with Chinese Medicine*. 2nd Edition. London, UK: Churchill Livingstone Elsevier; 2013. Page 266.
20. Yu Y, Sha SB, Zhang B, Guan Q, Liang M, Zhao LG, Zhang QY, Wen J, Sun W. Effects and mechanism of action of transcutaneous electrical acupuncture point stimulation in patients with abnormal semen parameters. Acupunct Med. 2019 Feb;37(1):25-32. doi: 10.1136/acupmed-2017-011365. Epub 2019 Apr 3. PubMed PMID: 30942613.
21. Siterman S, Eltes F, Wolfson V, Zabludovsky N, Bartoov B. Effect of acupuncture on sperm parameters of males suffering from subfertility related to low sperm quality. *Arch Androl*. 1997;39(2):155-161.
22. Zhang M, Huang G, Lu F, Paulus WE, Sterzik K. Influence of acupuncture on idiopathic male infertility in assisted reproductive technology. *J Huazhong Univ Sci Technolog Med Sci*. 2002;22(3):228-230.
23. Gurfinkel E, Cedenho AP, Yamamura Y, Srougi M. Effects of acupuncture and moxa treatment in patients with semen abnormalities. *Asian J Androl*. 2003;5(4):345-348.
24. Siterman S, Eltes F, Schechter L, Maimon Y, Lederman H, Bartoov B. Success of acupuncture treatment in patients with initially low sperm output is associated with a decrease in scrotal skin temperature. *Asian J Androl*. 2009;11(2):200-208.
25. Wang Z-Q, Huang Y-Q, Liang B. [Clinical observation on electroacupuncture and Chinese drug for treatment of oligospermia and asthenospermia of the male infertility patient]. *Zhongguo Zhen Jiu*. 2008;28(11):805-807.
26. Pei J, Strehler E, Noss U, et al. Quantitative evaluation of spermatozoa ultrastructure after acupuncture treatment for idiopathic male infertility. *Fertil Steril*. 2005;84(1):141-147.
27. Siterman S, Eltes F, Wolfson V, Lederman H, Bartoov B. Does acupuncture treatment affect sperm density in males with very low sperm count? A pilot study. *Andrologia*. 2000;32(1):31-39.
28. Dieterle S, Li C, Greb R, Bartzsch F, Hatzmann W, Huang D. A prospective randomized placebo-controlled study of the effect of acupuncture in infertile patients with severe oligoasthenozoospermia. *Fertility and Sterility*. 2009;92(4):1340-1343. doi:10.1016/j.fertnstert.2009.02.041
29. Gupta R, Singh P, Kumar R. Should men with idiopathic obstructive azoospermia be screened for genitourinary tuberculosis? *J Hum Reprod Sci*. 2015;8(1):43-47.
30. Mittal M, Siddiqui MR, Tran K, Reddy SP, Malik AB. Reactive oxygen species in inflammation and tissue injury. *Antioxid Redox Signal*. 2014;20(7):1126-1167.
31. Kothandaraman N, Agarwal A, Abu-Elmagd M, Al-Qahtani MH. Pathogenic landscape of idiopathic male infertility: new insight towards its regulatory networks. *NPJ Genom Med*. 2016;1:16023.
32. Tremellen K. Oxidative stress and male infertility—a clinical perspective. *Human Reproduction Update*. 2008;14(3):243-258. doi:10.1093/humupd/dmn004
33. Kidd SA, Eskenazi B, Wyrobek AJ. Effects of male age on semen quality and fertility: a review of the literature. *Fertil Steril*. 2001;75(2):237-248.
34. Lewis R. *The Infertility Cure: The Ancient Chinese Wellness Program for Getting Pregnant and Having Healthy Babies*. Little, Brown; 2008.
35. Levine H, Jørgensen N, Martino-Andrade A, et al. Temporal trends in sperm count: a systematic review and meta-regression analysis. *Hum Reprod Update*. 2017;23(6):646-659.
36. Website. (https://med.stanford.edu/news/all-news/2013/06/men-with-low-sperm-production-face-increased-cancer-risk-study-finds.html). Accessed April 29, 2019.
37. Website. P(Yatsenko, A.N. & Turek, P.J. J Assist Reprod Genet (2018) 35: 933. https://doi.org/10.1007/s10815-018-1148-y). Accessed April 29, 2019.
38. Wang C, Swerdloff RS. Limitations of semen analysis as a test of male fertility and anticipated needs from newer tests. *Fertil Steril*. 2014;102(6):1502-1507.

Footnotes

[i] Diethylstilbestrol: a synthetic form of estrogen formerly prescribed to pregnant women that has since been shown to cause a variety of significant adverse medical complications.

[ii] Cryptorchidism: a condition in which the testes fail to descend from the abdomen into the scrotum.

[iii] Midline defect: a congenital problem that occur along the vertical axis of the body.

[iv] Hypogonadism: reduction or absence of hormone secretion or other physiological activity of the gonads.

[v] Hypospadias: a relatively rare congenital condition where the opening of the penis is on the underside of the organ

[vi] Percutaneous Vasal Sperm Aspiration (PVSA), Microscopic Vasal Sperm Aspiration (MVSA)

[vii] Percutaneous Epididymal Sperm Aspiration (PESA), Microscopic Epididymal Sperm Aspiration (MESA)

[viii] Testicular Sperm Aspiration (TESA), Testicular Sperm Extraction (TESE)

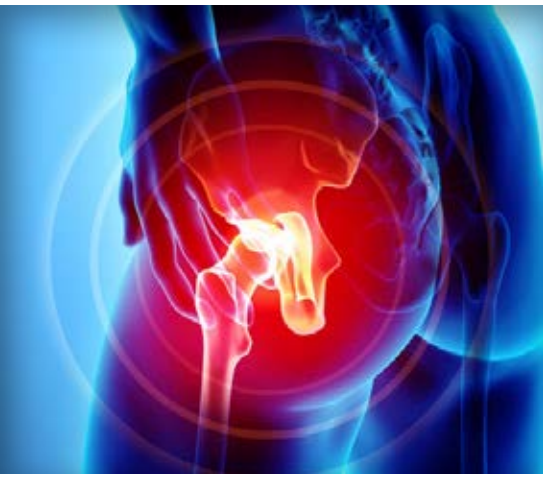
[ix] IUI: sperm extracted from a semen sample are separated then injected directly into the uterus using a catheter

[x] Intracytoplasmic sperm injection (ICSI): a single sperm cell is injected into the cytoplasm of a mature ovum.

[xi] ROS are key signaling molecules that play an important role in the progression of inflammatory disorders.[30]

[xii] Follicle Stimulating Hormone

[xiii] Luteinizing Hormone



Case Report

Using Master Tung Style Acupuncture to Treat Acute, Non-Traumatic, Inflammatory Hip Pain

By Amelia Zahm, DAOM, LAc

Amelia Zahm, DAOM, LAc received her doctoral degree at Oregon College of Oriental Medicine in August 2019. She has been practicing Chinese medicine in rural Northeast Oregon since 2004 and is currently employed by Winding Waters Community Health Center, a federally qualified health center serving Wallowa County. She can be reached at amelia.zahm@ocom.edu.

Abstract

Acute non-traumatic joint pain can be difficult to diagnose from a biomedical perspective because of the large number of differential diagnoses. Determining whether the pain is a self-limiting condition or a symptom of a more complicated disease process may still prove inconclusive. Because of diagnostic challenges, early treatment of inflammatory joint pain typically focuses on the relief of symptoms and maintenance of function. This case discusses a 25-year-old male who presented with an acute onset of severe pain in his hip and swelling in his knee, which did not respond to standard pharmacological intervention. The patient received a specific traditional Chinese medicine diagnosis and was treated based on the resulting disease pattern. After ten weeks of weekly acupuncture, the patient experienced a complete resolution of his pain and swelling and was able to return to normal function. This indicates that, even without a definitive biomedical diagnosis, acupuncture can be a reasonable and effective treatment. This case review also suggests that acupuncture treatment based on an individualized traditional Chinese medicine diagnosis and pattern differentiation may be effective in the relief of acute hip pain and swelling and may provide more notable results than standard pharmacological therapies. Because of differences in biomedical and TCM diagnostic techniques and priorities, a randomized controlled study may provide less accurate findings than study protocols which use individualized TCM diagnosis and treatment protocols within a study population.

Key Words: Acupuncture, Master Tung, hip pain, acute, inflammation

Background: Biomedical

Acute, non-traumatic polyarticular joint pain can be difficult to diagnose and differential diagnoses are often numerous and varied. Factors to consider when narrowing diagnostic possibilities include disease chronology, inflammation, distribution, extra-articular manifestations, disease course, and patient demographics.[1]

Acute joint pain and swelling commonly occur with viral infection. The prevalence of viral-induced arthritis is likely underestimated because specific viral etiologies are not always investigated.[1] While an acute presentation of severe joint pain may indicate a self-limited condition, it could also represent the onset of a chronic condition such as systemic lupus erythematosus, rheumatoid arthritis, psoriatic arthritis, or ankylosing spondylitis. Because the treatments for conditions like these are often toxic, it is generally recommended that synovitis be present for six weeks before something like rheumatoid arthritis is diagnosed.[2,3]

Because of the difficulty in definitively diagnosing the cause of acute polyarticular arthritis, early stage treatment focuses on the relief of symptoms and the maintenance of function. Patients are typically prescribed analgesic agents such as acetaminophen, non-steroidal inflammatory drugs, and glucocorticoids. In the case of viral arthritis, the use of glucocorticoids is discouraged because they are rarely effective and may mask disease process, thereby further complicating the diagnostic process. Physical therapy may also be an appropriate recommendation.

In the early stage of presentation, determining prognosis is difficult. In the case of acute, self-limiting disease processes, resolution of pain and inflammation may occur fairly quickly and not return, while in the case of systemic autoimmune disease, management of pain becomes a more long-term, complicated process involving multiple modalities such as pharmacological, psychological, and exercise-based interventions.[4–6]

Background: Chinese Medicine

In the practice of Chinese medicine, acute joint pain is diagnosed as Painful Obstruction Syndrome or *bi* Syndrome (*bi zheng*). Caused by the invasion of external pathogens that block the channels, *bi* Syndrome may affect muscles, joints, tendons, or bones and presents with aching, pain, stiffness, or numbness. Depending on the nature and quality of the pain and other accompanying symptoms, differential diagnoses include Wind *bi* (*feng bi*), Cold *bi* (*han bi*), Damp *bi* (*shi bi*), or Heat *bi* (*re bi*). Wind *bi* (*feng bi*) is the most common syndrome and the most likely to appear in combination with a secondary pathogen.[7,8]

Onset of symptoms may be preceded by exposure to climatic factors, which can occur alone or in combination, or after trauma or overuse. In many cases, an underlying deficiency of *qi* weakens the surface of the body and allows for the invasion. In chronic *bi* syndrome, the syndrome may become more complicated and include Phlegm stagnation, Blood stasis, and more severe *qi* deficiency and blood vacuity.[7–9] The commonly used TCM acupuncture treatment strategies are presented in the following table. Local and distal points are specific to affected channels and the location of pain and are not included in this table.

While a 2010 Cochrane review stated that, compared to sham treatment, acupuncture showed statistically significant short-term improvements in osteoarthritis pain and function, results did not meet the survey's pre-defined measurements for clinical

Table 1. [7,9]

TCM Pattern	Treatment Principle	Common Points
Wind Bi (*feng bi*) Wandering pain that moves from location to location in the joints, with aching and stiffness that is worse with cold. Pulse: wiry, floating. Tongue: thin white coating	Dispel Wind, open channels, nourish Blood to extinguish Wind	BL-12 Fengmen, GB-31 Fengshi, GB-39 Xuanzhong, Du-14 Dazhui, SJ-6 Zhigou, BL-17 Geshu, BL-18 Ganshu
Cold Bi (*han bi*) Severe, fixed pain of joints and limbs, pain relieved by heat and worse with cold, absence of redness or fever, limited movement. Pulse: tight, wiry. Tongue: thin white coat.	Dispel Cold, warm the channels, dispel Wind and Dampness (if present)	ST-36 Zusanli, Ren-6 Qihai, Ren-4 Guanyuan, SI-Yanggu, BL-10 Tianzhu, BL-23 Shenshu
Damp Bi (*shi bi*) Heaviness and aching of joints and limbs, distension and swelling, fixed pain, numbness or loss of sensation, symptoms worse in damp weather. Pulse: soft, slow, slightly slippery. Tongue: white slimy coating	Dispel Dampness, open the channels, dispel Wind and Cold (if present), tonify the Spleen to resolve Dampness	SP-9 Yinlingquan, SP-6 Sanyinjiao, GB-34 Yanglingquan, ST-36 Zusanli, BL-20 Pishu
Heat Bi (*re bi*) Severe pain, red, swollen, painful joints, difficulty moving affected joint. There may also be fever, sore throat, thirst, irritability, and dark scanty urine. Pulse: rapid, slippery. Tongue: yellow coat	Clear Heat, open the channels, dispel Wind, drain Dampness.	St-43 Xiangu, LI-4 Hegu, LI-1 Quchi, DU-14 Dazhui

"According to a 2017 white paper published in the *Journal of Integrative Medicine*, acupuncture is widely considered an effective, safe and cost-effective treatment for numerous types of acute and chronic pain."

relevance. This review, which considered 16 trials involving 3,498 people in randomized controlled trials of acupuncture for the treatment of osteoarthritis pain in knee and/or hip joints, suggested that clinically relevant results in waiting-list controlled trails were due to placebo or patient expectations.[10]

Recent research proves more promising. According to a 2017 white paper published in the *Journal of Integrative Medicine*, acupuncture is widely considered an effective, safe and cost-effective treatment for numerous types of acute and chronic pain. The paper offers a systematic review and summary of available evidence using acupuncture for a variety of pain conditions and suggests acupuncture as a prudent and reasonable therapeutic intervention when seeking to limit, reduce or avoid the use of opioid medications.[11]

In one notable study, an open pragmatic trial that was the largest study of its kind to date, 454,920 patients received acupuncture for the treatment of pain conditions. Results for the treatment of headache, low back pain, and osteoarthritis pain showed marked or moderate improvement in 76% of cases as evaluated by 8,727 treating physicians.[11]

A smaller study examining acupuncture for the treatment of synovitis in the knee joint reported that, out of 50 cases, 30 patients experienced curative effects (disappearance of swelling and pain, return to normal range of motion, with no recurrence in six months), 18 experienced marked improvement (obvious alleviation of acute symptoms), two improved and none reported failed results.[12]

Acupuncture treatment of inflammatory joint pain is based on pattern differentiation and constitutional diagnoses from a traditional Chinese medicine perspective rather than focusing on the more specific mechanisms of disease from a cellular or molecular perspective that modern medicine relies upon. Treatment is aimed at improving and activating whole system function and enhancing human resistance by stimulating the movement of *qi* and Blood, opening obstructed channels and tonifying underlying deficiencies to relieve pain.

A 2003 study of the anti-inflammatory actions of acupuncture suggest that these approaches may have an effect on the breakdown and clearance of bioactive mediators involved in inflammatory processes by increasing blood flow. Research also suggests that acupuncture may provoke a sustained release of the neuropeptide calcitonin gene-related peptide (CGRP) with anti-inflammatory activity without stimulation of more pro-inflammatory cells, which makes it a reasonable approach to reduce inflammation in a variety of conditions.

Other inflammatory biomarkers that appear to be influenced by acupuncture include erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), serum rheumatoid factor (RF), interleukin (IL), NF-k B, and TNF-a. While effectiveness in the treatment of inflammatory joint diseases such as rheumatoid arthritis (RA) has not yet been demonstrated in large randomized trials, more recent literature indicates such study is worthwhile.[13]

A systematic review of 43 studies (human and animal) conducted between 1974 and 2018 suggests that acupuncture alone or in combination with other treatment modalities can be beneficial in the treatment of RA without the adverse side effects often seen with current medication therapies. In human trials, acupuncture was shown to provide symptom relief, improve function and quality of life. Studies reviewed considered acupuncture's possible therapeutic mechanisms, which included anti-inflammatory effects, antioxidative effects and regulatory effects on immune system function.

While results were encouraging, the authors determined there was inconsistency in the clinical efficacy of acupuncture in the treatment of RA and other inflammatory disorders and a lack of double-blinded randomized controlled trials. This raises the question of how best to evaluate TCM treatment and theory using modern medical research methods and how the two might be combined.[14]

Case History

A 25-year-old male presented to this clinic having right hip pain, which had suddenly started ten days earlier. At the time of initial presentation, the patient's pain was so severe he could not bear weight on his right leg and required a wheelchair to get from the parking lot to the treatment room.

He reported that he injured his hip in a motorcycle accident six months prior to the onset of current symptoms. Bruising from that impact healed within a couple of weeks and he experienced only mild discomfort in his hip afterward.

Two weeks before he presented to the acupuncture clinic he became ill with symptoms of fever, malaise, sweating, mild nausea,

headache and congestion. One morning a few days after the onset of these symptoms he experienced severe pain in his low back, neck and right hip that prevented him from standing or walking without assistance. He presented to the ER and was diagnosed with post-viral synovitis.

One week later, at the time of his initial acupuncture visit, he was experiencing mild pain in his neck and severe pain in his hip. Immediately after his treatment, he reported relief of his neck pain but no change in his hip pain, and he demonstrated no improvement in his ability to walk or bear weight on his right leg.

After this initial treatment, he pursued biomedical treatment and did not begin a regular course of acupuncture until six weeks later. At that time, he presented with severe left hip pain and pain and swelling in his left knee and ankle, and he was still unable to walk without the support of a walker.

Biomedical History

Prior to his initial acupuncture appointment, the patient presented to the ER with acute onset severe hip pain. Physical examination in the ER indicated that the reflexes of his upper and lower extremities were intact. He exhibited tenderness upon palpation in the deep right buttock and below the ridge of the ilium, proximal to the center of the trochanter.

He had increased pain with active ROM of the hip but not with passive ROM. He could lift and hold his right leg off the table but couldn't resist with hip flexion. All lower extremity muscles worked well without pain except hip flexors. His back showed no real muscle spasms or tenderness to palpation.

There was neither deformity nor bony tenderness to the pelvis or spine. Imaging showed no acute fracture or traumatic malalignment of the right hip. There was decreased femoral head neck offset, which indicated possible femoral acetabular impingement syndrome. Patient was diagnosed with post-viral synovitis and prescribed prednisone and hydrocodone.

After receiving very little relief from medications, the patient returned to the ER one week later. He was diagnosed with hip pain, given a tramadol injection, and referred to an orthopedist. He continued to have severe pain for the next week and returned to the ER for further evaluation.

During this ER visit, he reported achy pain at a level of 7/10 on a verbal pain scale. He described pain as sharp with movement. He was diagnosed with a muscle strain and advised to use OTC pain relievers. It was after this ER visit that he had his initial acupuncture treatment.

During the next six weeks, the patient saw an osteopathic physician and a physical therapist. His differential diagnoses included inflammatory arthritis, reactive arthritis, systemic lupus erythematosus, rheumatoid arthritis, and impingement syndrome. He was prescribed naproxen, Norco, and a weaning round of prednisone. He experienced very little change or relief from medications. He reported the most change in his pain after cranial sacral therapy, which was performed by the physical therapist. At this time, he returned for acupuncture treatment.

Review of Symptoms

Upon physical examination, the patient showed tenderness on palpation along the Gallbladder channel in the hips and legs, bilaterally. He was particularly sensitive at GB 31, GB 34 on the affected side. His skin was warm and damp to touch, and his palms were sweaty, but he reported a subjective feeling of cold. He reported fatigue and malaise and was taking one or two naps per day.

At initial onset of his symptoms he experienced some pain around his kidneys accompanied by painful, frequent urination but that resolved within a few days and was no longer present. He had eliminated gluten, dairy and sugar from his diet and reported no digestive concerns or bowel issues.

He had no skin issues, palpitations, or shortness of breath. He was also negative for headaches, tremors, dizziness, abdominal pain or vision changes. His pulses were deep, thin, and soft, and his tongue was pale pink with slight scallops and a frothy white coat. His tongue was quivering.

Diagnostic Assessment

Diagnosis was painful obstruction syndrome or Damp *bi* (*shi bi*) with a TCM pattern differentiation of Damp stagnation in the Gallbladder channel and underlying *qi* deficiency. It is likely that the Damp pathogen invaded the body with the viral illness and settled in the Gallbladder channel around the previously injured and vulnerable hip joint.

Damp obstruction was indicated by the fixed pain in the right hip and subsequent swelling of the right knee and ankle. Signs of Dampness also included the patient's warm, damp skin and frothy white tongue coat and soft pulse. Obstruction of the Gallbladder channel was indicated by the location of pain in the hip and tenderness along the channel. Signs of *qi* deficiency included fatigue and malaise, scallops on the tongue, and deep, thin pulses.

Treatment

Treatment focused on resolving Dampness and moving qi, opening the Gallbladder channel, and tonifying the spleen *qi* to resolve Dampness. After six weeks of treatment, the continued presence of swelling in the knee and ankle indicated that Dampness was still lodged in the channels and was now also present in the Bladder channel. The

patient's ongoing fatigue indicated that his body was struggling to expel the pathogen. Because of the Eight Extraordinary Vessels' function to regulate, balance and integrate the body's *qi* and their ability to protect the body from pathogenic factors, it was appropriate to shift the treatment approach.

The *Yang Qiao Mai* was chosen because of its close relationship to the Bladder and Gallbladder channels, its position as the first channel to absorb excess *qi* from the primary channels, its relationship to ambulation, and its pathway along the lateral aspect of the body, which corresponded to the original area of pain.[15] Initial acupuncture treatments included a combination of primary channel points and distal point groups from Master Tung's Acupuncture system. Later treatments utilized primary channel points associated with the *Yang Qiao Mai*.

Master Tung Acupuncture utilizes groups of points arranged by anatomical zones and homologous imaging of the body rather than traditional channel systems. Each zone functions as a microsystem and, as such, has points that treat the whole body. Point groups are usually selected distal to the area being treated and are typically treated contralaterally.

After the initial treatment and six-week break, the patient received ten treatments and was treated once per week for ten weeks. In addition to acupuncture, later treatments included the application of direct moxibustion to warm the channels and expel Dampness. At this time the patient was also provided with a smokeless moxa pole to continue moxibustion at home. Acupuncture was performed with DBC Spring Ten 36-gauge needles. Moxa was DBC Pure Gold. At-home moxa prescribed was Huasun smokeless moxa roll.

It is worth noting that the practitioner did not choose to use local points that are commonly associated with treating hip pain, specifically GB-29, GB-30, BL-54 and ashi points around the hip and gluteal region. This choice was made partially because the practitioner prefers to use Master Tung's distal acupuncture to treat pain, but primarily because the patient's level of pain prevented comfortably positioning him in a way that allowed easy access to local points. As treatment progressed, the distal approach proved effective, so treatment using that style was deemed most appropriate.

A typical treatment involved the selection of 10-12 of the primary channel points combined with 2-3 Master Tung point groups. As is common in clinical acupuncture practice, point selection varied at each treatment based on the patient's presentation and primary complaints that day. All primary channel points were used bilaterally, except for LI-15 and SJ-14, which were used unilaterally on the left side, and all Master Tung points were used unilaterally as indicated. Treatments 7-10 used the *Yang Qiao Mai* protocol. Needles were inserted to an average depth of one-quarter to one-half cun, until the patient reported experiencing *de qi* sensation, and were retained for 30-35 minutes.

Table 2. Acupuncture Points and Methods

2A. Primary Channel Points[16]

Point	Action	Method
Yinlingquan SP-9	Regulate Spleen and resolve Dampness indicated	Reducing, at-home moxibustion
Yanglingquan GB-34	Benefit the sinews and joints, activate the channel and alleviate pain, clear Liver and Gallbladder Damp-Heat	Reducing
Qiuxu GB-40	Spread Liver *qi* and clear Gallbladder Heat and Damp-Heat, activate the channel to alleviate pain, benefit the joints	Even
Zulinqi GB-41	Spread stagnant *qi* in the Gallbladder channel, reduce swelling and pain of the feet	Even
Waiguan SJ-5	Expel Wind and release the exterior, clear Heat, activate the channel and alleviate pain	Even
Taichong LV-3	Spread Liver *qi*, regulate menstruation, regulate Lower *Jiao*	Reducing
Hegu LI-4	Regulate *qi* activate channels and alleviate pain	Reducing
Sanyinjiao SP-6	Tonify Spleen and Stomach, resolve Dampness, invigorate Blood	Tonifying
Zusanli ST-36	Fortify the Spleen and resolve Dampness, support the correct *qi*, nourish Blood, activate the channels and alleviate pain	Tonifying, at-home moxibustion
Taibai SP-3	Tonify the Spleen and resolve Dampness, regulate *qi*	Tonifying
Quchi LI-11	Regulate *qi* and Blood	Reducing
Jianyu LI-15 – left side	Eliminate Wind and regulate *qi* and Blood, homologous image of hip, treated on opposite side	Reducing
Jianliao SJ-14 – left side	Dispel Wind-Damp, homologus image of hip, treated on opposite side	Reducing

2B. Master Tung Point Groups[8,19]

Point	Action	Method
YiZhong, ErZhong, San Zhong 77.05-07	Move *qi* and Blood, clean the Stomach and Gallbladder channels, dispel Wind and Phlegm	Even – right side
XiaSanHuang 77.18, 77.19, 77.21	Strengthen the Spleen and Stomach, harmonize the Liver to smooth flow of *qi,* relieve pain in the bones	Even – right side
WanShuiYi, WanShunEr 22.08-09	Opens the Bladder channel, treats pain in the back and the legs, treat pain and heaviness in the body	Even – right side
DaBai, LingGu, 22.04-05	Regulate and supplement *qi*, warm and activate *yang*, pain in the *tai yang* and *shao yang* channels	Even – right side
SanChaSan	Treat pain in the foot *shao yang* and foot *tai yang* channels	Even – right side
LiuWan, ShuiQu 66.08, 66.09	Open the Gallbladder channel to guide stagnation out	Even – left side

2C. *Yang Qiao Mai* Protocol[15]

Point	Action	Method
Shenmai BL-62	Opening point of the *Yang Qiao Mai*	Even – left side, closed with 3 cones direct moxa
Fuyang BL-59	Xi-Cleft point of the *Yang Qiao Mai*	Even
Jugu LI-16	Meeting point of the Large Intestine channel with the *Yang Qiao Mai*	Even
Fengchi GB-20	Meeting point of the Gallbladder and *San Jiao* channels with the *Yang Qiao Mai*	Even
Waiguan SJ-5	Closing point of the *Yang Qiao Mai*	Even – left side

Results

By the fifth treatment, the patient was able to walk without the use of a walker or a cane and was no longer taking any anti-inflammatory medications. Using a verbal pain scale, he reported that the pain in his hip was now intermittent and at a level of 3-4/10 rather than 7/10. He continued to have pain and swelling in his right knee and ankle.

A blood test indicated that his C-reactive protein was 23.6, which indicated the presence of significant inflammation. He was still experiencing fatigue that required him to sleep 10-12 hours a night and nap once during the day.

By the sixth treatment he was feeling well enough to begin gentle exercise, including light weights and swimming. As he increased his level of activity, he had a temporary increase in joint pain and swelling. Pain was dull and aching and primarily in the low back, hip and knee but was relieved with rest.

By the tenth week of treatment the patient was no longer napping every day. Pain in hip, knee, and foot was now 2/10. Swelling of knee and feet was no longer visible. Patient was able to exercise every day and was working on rebuilding strength and balance.

The day before his final treatment he was able to go skiing for a few hours and experienced only minor swelling in his feet and some muscle soreness. He reported feeling energized by the fresh air and physical activity.

Case Discussion

After ten weeks of acupuncture treatment, the patient experienced complete relief from initial joint pain, significant relief of joint swelling and was returning to full and normal function. At the conclusion of his course of treatment the patient reported no hip pain, down from 7/10 on a verbal pain scale. He was able to walk with an even and steady gait without the assistance of a walker and showed no visible swelling. He was engaging in previously normal levels of function as well as physical activities that included swimming, weight lifting and skiing.

The patient reported only minor swelling and discomfort in his foot after vigorous activity, both of which resolved quickly with rest. He reported increased energy and stamina and was able to return to a regular work schedule.

Acute onset, non-traumatic hip pain can present a broad range of biomedical differential diagnoses, making the exact determination of etiology and pathogenesis difficult. In this case, the history of resolved trauma to the hip accompanied by the patient's recent viral illness presented a complicated case that was never definitively diagnosed.

While CRP levels indicated the presence of inflammation, other lab work and imaging were inconclusive. It was unclear whether the hip pain and inflammation was a self-limiting condition or indicative of a more insidious disease process.

In contrast, in this case, diagnosis based on traditional Chinese medicine principles was fairly straightforward. Based on presentation, the patient experienced a depletion of *qi* which allowed a Wind-Damp pathogen to penetrate his body and lodge in the

"After ten weeks of acupuncture treatment, the patient experienced complete relief from initial joint pain, significant relief of joint swelling and was returning to full and normal function."

previously injured hip joint. Treatment focused on acupuncture to drain pathogenic Dampness and clear obstruction in the Bladder and Gallbladder channels.

After six weeks of treatment, the presence of swelling in the knee and ankle and the patient's ongoing fatigue indicated that accessing the *qi* stored in the Eight Extraordinary Vessels was appropriate and, based on channel relationships and its relationship to movement and function, the *Yang Qiao Mai* was chosen and treated. The patient responded quickly such that within four weeks his pain and swelling resolved, his energy was returning, and he was able to resume normal levels of activity.

While the exact physiological mechanisms of acupuncture's effect on inflammation remain under study, research continues to support the use of acupuncture as a reasonable alternative to medication for the relief and management of chronic pain. This case supports those findings.

This case also highlights the challenge in researching the efficacy of acupuncture. Because of the differences in patient assessment and understanding of disease process, matching TCM treatment to a western medical diagnosis is often difficult and inconsistent.

Two patients with clear western diagnoses of osteoarthritis might present with completely different *bi* patterns, thus requiring different treatment principles and point prescriptions. Conversely, in this case, the patient had a broad range of differential diagnoses but a very clear and specific TCM pattern diagnosis.

Differences in diagnostic principles make standardizing treatment protocols to determine the efficacy of acupuncture in a randomized controlled trial setting problematic. Had this patient been treated with a standardized protocol that did not address his specific pattern differentiation, it is possible treatment would not have been successful and the determination of efficacy would have been inaccurate.

To truly evaluate acupuncture as a therapeutic intervention, it's important to study it pragmatically so it can allow study participants with a common biomedical disease diagnosis to receive an appropriate and individualized TCM diagnosis. Treatment would then result in more accurate findings regarding effectiveness.

Conclusion

After a ten-week course of treatment with acupuncture, this patient's acute hip pain and inflammation was resolved. While the patient had not received a conclusive biomedical diagnosis and received little to no benefit from biomedical interventions, TCM treatment outcomes support existing findings that acupuncture may be a reasonable and prudent therapy for joint pain and inflammation. As such, this case shows that a definitive biomedical diagnosis need not be essential for acupuncture treatment to be successful but rather that accurate TCM diagnosis may yield the best result.

This case also suggests that, because of differences in biomedical and TCM diagnostic techniques and priorities, using the randomized controlled study may provide less accurate findings than study protocols which allow for the use of individualized TCM diagnosis and treatment protocols within a study population.

References

1. Richie AM, Francis ML. Diagnostic Approach to Polyarticular Joint Pain. *Am Fam Physician.* 2003; 68(6):1151-1160.
2. Arnett FC, Edworthy SM, Bloch DA, et al. The American rheumatism association 1987 revised criteria for the classification of rheumatoid arthritis. *Arthritis Rheum.* 31(3):315-324. doi:10.1002/art.1780310302
3. Moore, Terry L, Pathogenesis and diagnosis of viral arthritis - UpToDate. https://www.uptodate.com/contents/pathogenesis-and-diagnosis-of-viral-arthritis/print?source=-bookmarks_widget. Accessed July 7, 2018.
4. Dzioba RB, Barrington TW. Transient monoarticular synovitis of the hip joint in adults. *Clin Orthop.* 1977; (126):190-192.
5. Walsh DA, McWilliams DF. Mechanisms, impact and management of pain in rheumatoid arthritis. *Nat Rev Rheumatol.* 2014; 10(10):581-592. doi:10.1038/nrrheum.2014.64
6. National Health and Medical Research Council (Australia), Royal Australian College of General Practitioners. Clinical Guideline for the Diagnosis and Management of Early Rheumatoid Arthritis. South Melbourne, Vic.: Royal Australian College of General Practitioners; 2009. http://www.nhmrc.gov.au/_files_nhmrc/file/publications/synopses/cp118-early-rheum-arthritis.pdf. Accessed July 7, 2018.
7. Wu Y, Fischer W, Fratkin J. Practical Therapeutics of Traditional Chinese Medicine. Brookline, Mass: Paradigm Publications. 1997.
8. Zhang E. Bi Syndrome (Arthralgia Syndrome). *J Tradit Chin Med.* 2010; 30(2):145-152. doi:10.1016/S0254-6272(10)60032-5
9. Maciocia G. Diagnosis in Chinese Medicine: A Comprehensive Guide. Edinburgh; New York: Churchill Livingstone. 2004.
10. Manheimer E, Cheng K, Linde K et al. Acupuncture for peripheral joint osteoarthritis. *Cochrane Database Syst Rev Online.* 2010; (1):CD001977. doi:10.1002/14651858.CD001977. pub2
11. Fan AY, Miller DW, Bolash B et al. Acupuncture's role in solving the opioid epidemic: evidence, cost-effectiveness, and care availability for acupuncture as a primary, non-pharmacologic method for pain relief and management–White Paper 2017. *J Integr Med.* 2017; 15(6):411-425. doi:10.1016/S2095-4964(17)60378-9
12. Anxiang W, Yuntao, Z. Acupuncture treatment of synovitis with effusion. *J Tradit Chin Med.* 2005; 25(3):204-205.
13. Zijlstra FJ, van den Berg-de Lange I, Huygen FJPM, Klein J. Anti-inflammatory actions of acupuncture. *Mediators Inflamm.* 2003; 12(2):59-69. doi:10.1080/0962935031000114943
14. Chou P-C, Chu H-Y. Clinical efficacy of acupuncture on rheumatoid arthritis and associated mechanisms: A systemic review. *Evidence-Based Complementary and Alternative Medicine.* doi:10.1155/2018/8596918
15. Maciocia G. The Channels of Acupuncture: Clinical Use of the Secondary Channels and Eight Extraordinary Vessels. Edinburgh: Churchill Livingstone. 2007.
16. Deadman P, Al-Khafaji M, Baker K. *A Manual of Acupuncture.* Hove, East Sussex, England: Journal of Chinese Medicine Publications: Distributed in North America by Eastland Press. 2006.

Case Report

Idiopathic Peripheral Neuropathy and Dizziness Treated with Acupuncture and Chinese Herbal Medicine

By Beth Howlett, DAOM, LAc

Beth Howlett has practiced as a licensed acupuncturist since 2009. She is an administrator and faculty member at Oregon College of Oriental Medicine and serves on the Board of Directors for the Oregon Association of Acupuncture and Oriental Medicine (OAAOM). Her passion is educating future acupuncturists on research literacy and the history of Chinese medicine practice in Oregon. Dr. Howlett also serves as the education working group co-chair for the Academic Collaborative for Integrative Medicine (ACIH) and secretary/treasurer for the Oregon Collaborative for Integrative Medicine (OCIM).

Abstract

Dizziness and idiopathic neurological disorders are among the most common reasons to see a physician, particularly for aging populations. Non-specific and undiagnosed symptoms can interfere with patients' quality of life and sense of well-being, leading individuals to seek complementary care. Limited biomedical treatment options for idiopathic symptoms highlights a need to explore alternative therapeutic interventions for these cases. This case study describes a successful intervention for two common chronic and idiopathic symptoms utilizing traditional Chinese medicine pattern differentiation to determine an acupuncture and Chinese herbal treatment approach. The patient was treated for six months with combined traditional Chinese medicine herbal and acupuncture care based on pattern differentiation, which led to a gradual but significant change in her primary complaints of dizziness, nausea, and peripheral neuropathy. Further studies are warranted to determine feasibility and comparative effectiveness of acupuncture combined with Chinese herbal medicine to treat non-specific conditions.

Key Words: Acupuncture, Chinese herbal medicine, peripheral neuropathy, dizziness, vertigo, idiopathic symptoms

Introduction

Dizziness and vertigo are among the most common disorders seen in clinical practice. These conditions affect 20-30% of the general population at some time and account for approximately 5% of all primary care visits.[1]

Dizziness is characterized by a broad range of subjective complaints related to sensation, movement, perception and consciousness. Vertigo is a subtype of dizziness defined as a sensation of motion when there is no actual motion or an exaggerated sense of motion in relation to a specific body movement.

The cause of this disorder may be of either peripheral and otologic origin (with sudden onset of dizziness often accompanied by tinnitus or hearing loss) or central (gradual in onset without associated hearing symptoms and possible nystagmus) or both.[1,2] Presentations of vertigo and dizziness may also have a mixed etiology in cases such as polypharmacy, migraine, vascular compression, endocrinopathies, infections, or stroke.[3,4]

Benign paroxysmal positioning vertigo (BPPV) presents with frequent spells of vertigo, lasting several minutes at a time, typically appearing in clusters which can last for several days at a time.[1] Standard treatment for this type of vertigo involves physical therapy in the form of canalith repositioning maneuvers (CRM) such the Epley maneuver.[5,6]

Typical assessments for vertigo include a thorough medical history, evaluation of the ears, observation of eye motions in response to challenge movements, cranial nerve testing, MRI, ECG and the Romberg test.[1] Key assessments include length, duration and periodicity of symptoms as well as triggers such as diet, stress, fatigue and bright lights.[1]

Dizziness and idiopathic neurological disorders are among the most common reasons to see a physician. Such non-specific and undiagnosed symptoms can interfere with patients' quality of life and sense of well-being. This can lead individuals to seek complementary care.[6,7] Co-morbidities of idiopathic pain, dizziness and nausea can be indicators of underlying psychological problem.

Idiopathic peripheral neuropathy is typically a mixed sensory-motor polyneuropathy of the central or peripheral nervous system.[8] An estimated 20 million adults in the United States have peripheral neuropathy and, after a complete evaluation for all possible causes, 20-25% of these individuals receive a diagnosis of exclusion, with their conditions labeled as idiopathic or cryptogenic neuropathy.[7,9]

Patients with sensorimotor manifestations most commonly experience heaviness in the affected area and, to a lesser extent, imbalance.[7] Typical assessments for idiopathic peripheral neuropathy include nerve conduction testing, sensory and reflex tests, blood tests and urinalysis.[7,10]

Without a known organic cause, idiopathic neuropathy is directly untreatable.[7,9] Clinical management of the condition involves counseling the patient on the benign progress of the disease and frontline medications that include tricyclic antidepressants, calcium channel ligands such as gabapentin, and serotonin-norepinephrine reuptake inhibitors.[7,9,11]

In a large study of symptoms presented in primary care settings, only 16% had a clear organic etiology and, at three-year follow-up for the remaining 74%, non-specific symptoms remained the primary diagnosis.[12] Lasting non-specific symptoms can cause significant subjective stress to an individual and may also be the only clinical sign of common psychological condition presented to a physician. Symptoms with the strongest correlation to an undiagnosed psychological condition, when presented as two or more non-specific symptoms, were headache, fatigue, dizziness and insomnia.[12,13]

Chinese Medicine Background

Xuan yun is the traditional Chinese medicine (TCM) disease name associated with symptoms of dizziness. It is typically accompanied by spontaneous sweating, nausea or vomiting. The differential pattern diagnoses in TCM associated with *xuan yun* are hyperactivity of Liver *yang*, vacuity of *qi* and blood, vacuity of Kidney essence, *yin*, or *yang*, and obstruction of the Middle Burner by Phlegm-Damp or Phlegm-Fire.[14] These patterns manifest as either pure deficiency or combination deficiency and excess symptoms.

A variety of etiological factors can contribute to the development of *xuan yun* symptoms such as anxiety, anger or frustration, the natural process of aging, chronic illness, and improper diet. Simple deficiency patterns involve either the kidney or the spleen system alone, while complex excess and deficiency patterns may include hyperactivity of Liver *yang* and obstruction patterns involving Phlegm-Damp or Fire.

Various clinical approaches to treatment using acupuncture point combinations and herbal formula prescriptions are described in case studies and TCM textbooks;[10,15-23] however, no examples of clinical trials and meta-analysis support a clear Chinese medical clinical guideline for dizziness or vertigo. Case reports and clinical trials suggest that TCM pattern-based acupuncture and acupressure on PC-06 *nei guan*, in addition to diet and lifestyle modifications, may be a safe and effective approach to treating acute vertigo and dizziness.[13,24]

Peripheral neuropathy is a modern diagnosis not specifically named as a disease in traditional Chinese medicine. However, the symptoms may fall under several possible disease categories in TCM such as *xiao ke* (wasting and thirsting), *bi* syndrome, and *wei* syndrome.[9]

Pathological numbness, atrophy, tingling, and burning pain may arise from several possible pathologies according to TCM: Phlegm/Dampness obstructing the channels, chronic poor nutrition damaging the spleen leading to deficiency of *qi* and Blood, pathological factors damaging the *zang* organs and their associated tissues, or emotional stress and nervous tension leading to chronic Liver *qi* stagnation obstructing the *shaoyang* and depleting the liver and kidneys.[7]

A search of relevant literature revealed no clinical trials or systematic reviews related to the two chief complaints. A handful of published case studies highlight treatment protocols, some based upon pattern differentiation and others independent of pattern association.[12,25,26]

The remainder of the literature addresses the Chinese medicine treatment approach to peripheral neuropathy through herbal formulas to address deficiency of Liver and Kidney *yin*, tonify the middle and augment the *qi* for a patterns of Spleen *qi* deficiency, and formulas for deficiency with concomitant Blood stagnation.[12,27,28]

History

In 2011 a 53-year-old female presented at clinic with the chief complaints of positional dizziness, constant nausea, and partial loss of sensation and control in the left foot. She had experienced a progression of these symptoms for the preceding eight years.

At the time of initial presentation for acupuncture treatment, the patient reported that she would wake each night with strong feelings of anxiety, nausea and dizziness that were exacerbated by sudden swiveling motions and changes in her upright position. She generally felt cold, especially in her hands and feet, with a self-reported loss of grip strength in both hands.

During the day, anxiety-inducing episodes of dizziness along with a flopping sensation in the left foot would cause her to stumble without warning and occasionally fall down. Her left foot felt constantly "heavy." Due to a meniscus tear in the right knee, she experienced chronic knee pain as well as shoulder tension exacerbated by stress.

Neural imaging and peripheral nerve testing results were both negative for any specific pathology. Because of the idiopathic nature of her condition, the patient had been not been prescribed and was not taking any medication for the dizziness, nausea or loss of peripheral sensation. She was previously treated with the Epley maneuver, which provided temporary relief of her most severe symptoms of dizziness.

Review of Symptoms

The patient self-referred for acupuncture after repeated testing for hematological, physiological and neurological causes revealed no abnormalities. Examinations included a CBC, urinalysis, quantitative sensory tests, peripheral nerve impulse testing, imaging for spinal impingements, and orthopedic exams for benign paroxysmal positional vertigo.

She took daily supplements of calcium, vitamin D, omega-3 fish oil, over-the-counter antihistamines as needed for sinus congestion, and ibuprofen as needed for pain. The patient reported poor appetite, sugar cravings, recent unexplained weight loss, occasional constipation, gas and borborygmus.

She complained of poor sleep and waking every night at 3:19 am with difficulty falling back asleep. Her vision was corrected with contact lenses and she experienced poor night vision and visual floaters. The patient had a tendency to get headaches located behind her eyes before the onset of her menses. Her cycle lasted 28 days and was accompanied by breast tenderness and heavy bleeding.

The mother of two children, she had also experienced heavy bleeding during both vaginal births. As a fourth grade teacher, she felt daily stress and concern for the welfare of children in her classroom. She described the situation with her students as particularly stressful.

Her movements were guarded due to a fear of falling from bouts of dizziness brought on by sudden changes in position or rotation of the head and neck. Changes in weather, pressure, poor sleep and extended travel also tended to exacerbate the dizziness. She was diagnosed as anemic in 2009, although recent blood work was not positive for the condition.

Physical Examination

The patient's pulse was wiry bilaterally, especially in the *cun* and *guan* positions. Her tongue body was pale, puffy and scalloped with small central cracks. The tongue coat was thin and white. Her complexion was pale. Palpation of the left foot and leg revealed no swelling, discoloration, or other remarkable morphology. The hands and feet were cool to the touch.

Assessment

Initial diagnosis for this patient was Spleen *qi* deficiency, Liver *qi* stagnation, and Liver *yang* rising with Liver *yin* deficiency. The Spleen *qi* deficiency is demonstrated by the constant worry, pale/puffy/scalloped tongue, sugar cravings and muscle weakness.

The Liver *qi* stagnation is evidenced by the cold hands and feet, insomnia characterized by waking around 3 a.m. with anxiety and inability to fall back asleep, wiry pulse, and breast tenderness. The Liver *yang* rising pattern is supported by headache with distending pain behind the eyes, dizziness. The Liver *yin* deficiency pattern is evidenced by floaters in the eyes, history of heavy menstrual bleeding, and cracked tongue body.

Herbal and Acupuncture Treatment

Three distinct phases occurred over the course of this case. Phases 1 and 2 focused on the initial presenting symptoms—positional dizziness, nausea and idiopathic neuropathy. After a six-week treatment hiatus post-surgery, the third phase added acupuncture points and topical herbs for post-surgical recovery and knee pain management, with continued emphasis on root constitutional treatment for her initial presenting symptoms.

All acupuncture was performed bilaterally with 0.20x30 mm, Spring type, DBC brand, Korean needles with guide tubes used for insertion. Reducing technique was performed by needling against the channel while the patient would inhale. The tonifying technique was performed angled with the channel and on the exhale.

Phase One: Treatment principles, sample treatment, and results

The initial course of treatment lasted 10 visits over a 3-month period. During this phase, the patient achieved incremental progress as reflected in follow up questions during her weekly acupuncture sessions.

The first aspect of her condition to change was her pattern of waking at 3:19 a.m. She was able to go back to sleep, with resolution when she woke only when her alarm went off. As her bouts of stumbling were tracked, she reported one less episode each week. The dizziness and nausea shifted from being a constant presence to periodic episodes brought on by environmental factors, most noticeably stress and lack of sleep.

Points selected during this period are listed in Table 1. The points were chosen to move Liver *qi*, supplement the Spleen, reduce nausea and calm the *shen*. Vaccaria seeds were applied to the auricular points to add continuity of treatment between office visits. The patient was instructed to stimulate seeds herself with gentle pressure and to retain seeds for a week until the next visit.

The point actions were complemented with an herbal formula to tonify the Spleen *qi*, resolve Dampness and promote circulation in the lower limb. A customized granule modification of *Bu zhong yi qi tang* (tonify the middle and augment the *qi* decoction) was prepared for her follow-up visit.

Table 2 details the formula composition and individual herb dosage. The granules used were KPC brand at a 5:1 concentration and the patient was instructed to reconstitute 5 g three times per day and drink as a tea.

Table 1.

Point	Action	Method of Stimulation
Taichong LV-03	Spreads Liver *qi*, nourishes Liver Blood and *yin*, and clears the head and eyes	Reducing
Xingjian LV-02	Spreads Liver *qi* and pacifies Liver Wind	Reducing
Hegu LI-04	Expels Wind and regulates the ears, face, eyes, nose and mouth	Reducing
Sanyinjiao SP-06	Resolves Dampness, harmonizes the Spleen, Liver and Kidneys, and calms *shen*	Tonifying
Zusanli ST-36	Fortifies Spleen, resolves Dampness, tonifies *qi,* nourishes Blood, supports the *zheng qi*	Tonifying
Yintang M-HN-03	Pacifies Wind and calms the *shen*	Even
Neiguan PC-6	Harmonizes Stomach to alleviate nausea	Reducing
Yanglingquan GB-34	Spreads the Liver *qi* and harmonizes the *shao yang*	Tonifying
Shenmen HT-07	Calm the *shen* to treat insomnia	Tonifying
Zhaohai KI-06	Nourishes Kidney and clears deficiency heat to treat dizziness	Tonifying
Shenmai BL-62	Pacifies interior and exterior Wind, benefits the head and eyes	Reducing
Qimen LV-14	Spreads the Liver *qi* and harmonizes Liver and Stomach to treat nausea	Reducing
contra lateral scalp points for the lower limb (sensory and motor)	To regulate sensory and motor control of the feet. 100/2 mixed frequency electro stimulation used when electro was applied	Electro-acupuncture and manual reducing technique
Auricular: foot, liver and sympathetic		Vaccaria seed with self-applied acupressure

Bu zhong yi qi tang is indicated for weak limbs, a shiny pale complexion, a pale tongue with a thin white coating and a flooding deficient pulse.[27] These signs conform to a deficiency of spleen and Stomach *qi* leading to a sinking of the *yang*.[27] As the Spleen system regulates the flesh and the limbs as well as the digestion, according to TCM five-phase theory, this inability to lift may manifest as a collapsing inward or a heavy sensation in the body.

The formula tonifies the middle *jiao*, benefits *qi*, causes *yang qi* to ascend and lifts signs of prolapse. The formula can treat weakness of the extremities and other prolapsed signs, which present with a pale tongue and soft pulse. Modifications were added to dispel Wind and Dampness from the lower extremities. Based on the patient's lifestyle and unwillingness to continue to drink tea, on the third visit, the Seven Forests brand formula Ginseng 18 was prescribed and taken in the form of three tablets three times per day.

Phase Two: Treatment principles, sample treatment, and results

The second course of treatment lasted for six visits over a five-week period. The patient's subjective sense of dizziness and balance had improved. By the second phase of treatment, she no longer reported nausea. Her symptoms went from being constant daily obstruction to activities of daily living to episodic experiences. The amount of stumbling episodes continued to decrease in frequency over time.

As stress and insomnia remained triggers for her, the herbal treatment was changed to *Jia wei xiao yao wan* Augmented Rambling Powder (Plum Flower brand teapills) to focus both the herbal and acupuncture treatments on moving Liver *qi*. This formula soothes the liver, relieves *qi* stagnation and sedates Heart Fire, while to a lesser extent strengthens the spleen and blood.

Table 2.

Custom Granule Formula	Raw Herb Tablets
Bu Zhong Yi Qi Tang Jia Jian Tonify the middle and augment the *qi* decoction (modified)	Ginseng 18 Tonify the *qi* and augment the middle decoction combined with ginseng, poria and atractylodis macrophela powder
Huang qi (Radix Astragali) 9 g	*Ren shen* (Radix Ginseng) 11%
Dang shen (Codonopsis Pilosula) 9 g	*Bai zhu* (Rhizoma Actractylodis) 8%
Bai zhu (Rhizoma Actractylodis) 9 g	*Fu ling* (Schlerotium Poriae) 8%
Fu ling (Schlerotium Poriae) 9 g	*Huang qi* (Radix Astragali) 7%
Dang gui (Radix Angelicae) 12 g	*Shan yao* (Rhizoma Discoreae) 6%
Chen pi (Pericarpium Citri) 6 g	*Bai bian dou* (Semen Lablab Album) 6%
Ban xia (Pinella Rhizome) 9 g	*Lian zi* (Semen Nelumbinis) 5%
Chai hu (Radix Bupleuri) 6 g	*Gan jiang* (Rhizoma Zingiberis) 5%
Sheng ma (Rhizima Cimifugae) 3 g	*Dang gui* (Radix Angelicae) 5%
Zhi gan cao (Honey-fried Radix Glyceyrrhizae) 3 g	*Gan cao* (Radix Glyceyrrhizae) 5%
Wei ling xian (Radix Clematidis)9 g	*Sheng ma* (Rhizmoa Cimifugae) 4%
Du huo (Angelica Pubescens) 9 g	*Chen pi* (Pericarpium Citri Reticulate) 5%
Chuan niu xi (Radix Cyathulae) 9 g	*Mu xiang* (Radix Aucklandiae) 5%
Chuan niu xi (Radix Cyathulae) 9 g	*Hou po* (Cortex Magnoliae) 5%
	Gao Liang jiang (Galangal Rhizome) 4%
	Sha ren (Fructus Amomi) 3%
	Mu gua (Fructus Chaenomelis) 3%
	Mu gua (Fructus Chaenomelis) 3%

This change in her herbal prescription led to an exacerbation of the original presenting symptoms on her 14th visit, including nausea and increased sense of dizziness. She was then again given the original patent formula Ginseng 18, and her symptoms again improved to where they were on her 13th visit.

Phase Three: Treatment principles, sample treatment, and results

A final phase of treatment included four treatments over six weeks, initiated after a six-week hiatus to recover from knee surgery. The topical trauma liniment *Zheng gu shui* was prescribed for use as needed to address the post-surgical swelling and pain. An additional vaccaria seed was applied on the right knee auricular point. *Ashi* points were added around the knee to alleviate tension in the quadriceps and IT band.

According to the patient at the final treatment session, the nausea was completely gone, her dizziness was episodic as opposed to constant, the grip strength in her hands improved, and the numbness in her foot had improved. A gait assessment was difficult due to the effects of post-surgical pain and lack of mobility.

The patient returned to clinic three years later for a different issue and reported that she had taken her formula for another six months beyond our last consultation and discontinued it when her extremities began to feel "too warm." The peripheral symptoms—gait instability and nausea—had not returned at her three-year follow-up visit. Her dizziness remained episodic, with lack of sleep combined with motion triggers provoking brief and self-limiting attacks of vertigo.

Given the eight-year history and progressive worsening of the patient's positional dizziness, nausea and neuropathy in the left foot, it is likely that the TCM treatment interventions described above made a significant impact on her symptoms. This impact was gradual and not entirely complete by the end of six months of treatment, yet it allowed the patient to engage in the activities of her daily life without nausea and without falling down. The impact that workplace stress had on her symptoms suggests that a full resolution may depend upon a change in her work environment or additional therapies to support her psycho-emotional wellbeing.

Discussion

Alternative medical approaches are often sought as a last resort when modern medical diagnostic techniques fail to isolate an organic cause. This case is an example of how treatment according to the pattern differentiation principles of Chinese medicine allows for a systematic approach to complex problems.

Bu zhong yi qi tang was effective for two "sinking" peripheral symptoms not necessarily correlated in biomedicine but correlated according to TCM pattern differentiation. By addressing the root, restoring Spleen *qi's* lifting function, this standardized TCM formula made a clinical difference. The addition of Dampness-transforming elements in the formula Ginseng 18 may have reduced the heaviness and "floppiness" in her foot while at the same time as reducing her nausea.

By combining symptoms across physiological systems that are separated in allopathic medicine, Chinese medicine frames a holistic diagnostic and treatment approach according to the rubric of pattern-based syndrome differentiation. An herbal formula for Spleen *qi* deficiency and Dampness led to a gradual reduction of symptoms, while the prescription of a Liver *qi* coursing formula led to their return. Although the change may have been an adverse reaction to specific herbs in the new formula, this is unlikely given the return of all baseline symptoms.

The patient's gradual improvement upon consistent treatment with a Spleen *qi* lifting and Dampness-transforming formula suggests that her experience was more than just a placebo effect. It looks to be a desired result of an appropriate formula prescribed according to relevant pattern differentiation.

Given the relative safety of Chinese medicine interventions, referral to a trained Chinese medicine practitioner may be justified for idiopathic symptoms that are either subclinical according to allopathic guidelines or unresolved with current standards of care. This recommendation seems particularly applicable where no effective biomedical intervention is available and where the symptoms are anticipated to be progressive and chronic.

Conclusion

This case study suggests that a holistic TCM approach to treatment may be effective for idiopathic peripheral neuropathy and dizziness. Further studies are warranted to determine feasibility and comparative effectiveness of acupuncture combined with Chinese herbal medicine to treat non-specific conditions. The Chinese medicine practitioner has a clinical guideline—pattern differentiation—for non-specific symptoms which may remain idiopathic according to allopathic guidelines. Further study in controlled trials of Chinese medicine are needed where herbs and acupuncture are combined for treatment of dizziness or idiopathic peripheral neuropathies. If these studies are designed based on the principles of TCM pattern differentiation, then this case provides herbal formulas and acupuncture points that may be warranted for use in clinical trials.

References

1. Post, RE, & Dickerson, LM. Dizziness: A diagnostic approach. *American Family Physician*. 2010; 82(4): 361–368, 369.
2. Ahearn DJ, Umapathy D. Vestibular impairment in older people frequently contributes to dizziness as part of a geriatric syndrome. *Clinical Medicine*. 2015;15(1):25-30. doi:10.7861/clinmedicine.15-1-25.
3. Chimirri S, Aiello R, Mazzitello C, Mumoli L, Palleria C, Altomonte M, … De Sarro G. Vertigo/dizziness as a drug's adverse reaction. *Journal of pharmacology & pharmacotherapeutics.* 2013; 4 (Suppl 1): S104–109.
4. Papadakis M & McPhee S. *Current Medical Diagnosis and Treatment.* McGraw-Hill, 2013.
5. Balatsouras DG & Korres SG. Subjective benign paroxysmal positional vertigo. *Otolaryngology—Head and Neck Surgery.* 2012; 146(1): 98–103.
6. Sugita-Kitajima A, Sato S, Mikami K, Mukaide M, & Koizuka I. Does vertigo disappear only by rolling over? Rehabilitation for benign paroxysmal positional vertigo. *Acta oto-laryngologica.* 2010; 130(1): 84–88.
7. Clinical Roundup: Selected Treatment Options for Peripheral Neuropathy. *Alternative and Complementary Therapies.* 2013; 19(3): 162–171.
8. Singer M A, Vernino SA, & Wolfe G I. Idiopathic neuropathy: new paradigms, new promise. *Journal of the peripheral nervous system. JPNS.* 2012; 17 Suppl 2: 43–49.
9. Brannagan TH 3rd. Current issues in peripheral neuropathy. *Journal of the peripheral nervous system.* 2012; 17 Suppl 2: 1–3.
10. Hoeijmakers JG, Faber CG, Lauria G, Merkies I, & Waxman SG. Small-fibre neuropathies--advances in diagnosis, pathophysiology and management. Nature reviews. *Neurology.* 2012; 8(7): 369–379.
11. Sachedina S & Toth C. (2013). Progression in idiopathic, diabetic, paraproteinemic, alcoholic, and B12 deficiency neuropathy. *Journal of the Peripheral Nervous System.* 2013; 18(3): 247-255.
12. Matalon A, Kotliroff A, Blumberg G, Yaphe J & Kitai E. Non-specific symptoms as clues to changes in emotional well-being. BMC *Family Practice.* 2011; 12(1): 77.
13. De Moraes S A, Soares WJ de S, Ferriolli E, & Perracini MR. Prevalence and correlates of dizziness in community-dwelling older people: A cross sectional population based study. *BMC geriatrics.* 2013; 13, 4.
14. Wu Y, & Fischer W. *Practical Therapeutics of Traditional Chinese Medicine.* J. Fratkin, Ed. Brookline, MA: Paradigm Publications. 1997.
15. Huang W-L & Huang APS. How do you treat benign paroxysmal positional vertigo in your practice? *Medical Acupuncture.* 2012; 24(2): 129–130.
16. Zhang L. Thirty-one cases of vertigo treated by acupuncture bases on the doctrine of supplying water to nourish wood. *International Journal of Clinical Acupuncture.*1999; 10(1): 99–100.
17. Soltanian, S. (2007). Treatment of vertigo with acupuncture: case report. *Medical Acupuncture,* 19(3): 159–160.

continued on page 39

Ego, Id, Defense Mechanisms and Chinese Medicine

By Emmanuel Arroyo, MSOM, LAc, CAr, CIr

Emmanuel Arroyo, MSOM, LAc, CAr, CIr received his Master's Degree in Oriental Medicine from the New York College of Health Professions in 2007. He is certified in both iridology (2006) and aromatherapy (2017). He has been in practice since 2007 and is on the faculty at the Pacific College of Oriental Medicine, New York. His special interests include psycho-emotional, gastrointestinal, and autoimmune disorders. Emmanuel can be contacted at: Dr.agujas@gmail.com

Abstract

Chinese medicine can be seen as a dynamic philosophy in which each science field within it endeavors to convey a clear portrait of abstract concepts with its use of Chinese characters and the meridians' pathways. The field of psychology, when analyzed within the context of Chinese medicine, can offer a new vision on the established concepts of Ego, Id, defense mechanisms, and libido. This article discusses the Ego and defense mechanisms in terms of the Heart Protector, the Id in terms of the Chinese medicine Kidney, and the Chinese medical term, Liver, as the thoroughfare for the *ming men*-fire and *jing*-essence.

Chinese characters for *shen* and their cognates, acting as a beacon, guide our perceptions by drawing frames of reference associating *shen* with the Ego and its defense mechanisms. The *ming men*-fire is the Chinese medicine equivalent for Id, with the vessel carrying internal instincts, libidinal drive, and sexuality as the Liver, and with the willl to survive as the Kidney.

The Liver is seen as functioning between the conscious and unconscious and carries internal stimuli of an unconscious nature. In Chinese medicine terms, *jue yin* connects both leg *shao yin* with arm *shao yin*. Vacuity of Liver leads to wind, *qi* stagnation, *yang* rising and Heat, or fire, that harasses the mind. Another diagnosis would be Heart and Kidney not able to communicate, or phlegm misting the orifices. It is noted that all of them communicate the idea of the Id's inability to communicate with the Ego thanks to diverse defense mechanisms.

Key Words: Ego, Id, defense mechanisms, Chinese medicine, psychology, *ming men* fire, *jing*-essence, *jue yin, shao yin*

The Ego, Id, and defense mechanisms are well-known topics in psychology, but can we trace some parallels with Chinese medicine? Are there any paradigms—Chinese characters or meridians pathways—that can assist in drawing a satisfactory hypothesis linking Heart Protector with Ego and, by extension, with defense mechanisms as well as the Id with the Kidney meridian? To consider these questions, it is important to understand the concepts of the Id, the Ego, and their defense mechanisms.

"Our experiences and reactions to them shape our identity or Ego. During this separation of the Id and Ego, the individual is learning about boundaries, personal space, control, manipulation, reward, punishment, value, self-esteem, bonding, and much more until reaching teenage years where integration happens and an identity is forged. At this point this identity must be protected more than ever . . ."

First, what are the Id and the Ego and how did they emerge? The work of Anna Freud[1] and Edward F. Edinger[2] clearly shows the Ego and Id are distinct units enclosed in a limited sphere of reality, which separates as we mature, forming an identity during our teenage years.[3]

Our experiences and reactions to them shape our identity or Ego. During this separation of the Id and Ego, the individual is learning about boundaries, personal space, control, manipulation, reward, punishment, value, self-esteem, bonding, and much more until reaching teenage years where integration happens and an identity is forged. At this point this identity must be protected more than ever—during the formation years the individual was susceptible to external forces such as family, friends, and institutions or from internal stimuli or fears that unconsciously emerged from the Id.

The Id's dynamic is always ascending. This dynamic is sexual[4] energy brought into existence by two cells, ova and sperm,[5] such that each has one goal—to reach maturity, procreate, and preserve the human race.[6] In its path to maturity and consciousness, the Id develops a will,[7] a desire to satisfy its urges, which Anna Freud[8] called "instinctual impulses"[9] and Carl G. Jung called "energy."[10]

It is Jung who clarified that this libido[11] is not sex as adults know it but, rather, an energy that engenders everything in the body—our organs and our bodily functions. It influences our mind[12] and emotions. The Ego is related to awareness, consciousness, and individuality—all part of the mind.[13] The Ego has the capacity to protect the mind, our identity, from instinctual impulses, frictions, or an urge to overpower that can arise from the Id. The Ego is the Protector of the mind, our psyche, and our personality.

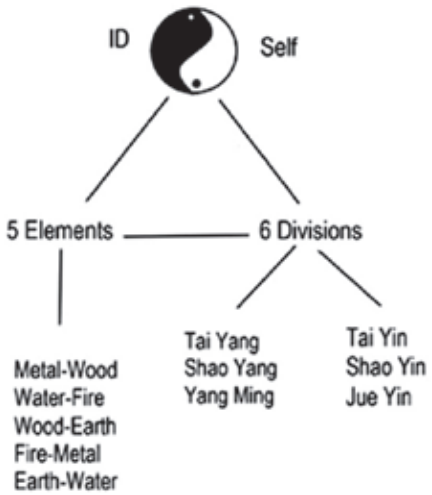
The question arising here is, can we find some similarities in the tenets of Chinese medicine? In viewing the Id and Ego, I see it as two distinct units enclosed in one sphere of reality. Does Chinese medicine have an analogue to this concept?

One major concept, of course, is the symbol of *yin* and *yang*. The separation of *yin* and *yang* opens the doors to the creation of the "thousand things in the world" and, in this instance, our inner world. During the separation of *yin* and *yang*, there emerges a cycle where the wood element and metal play an important role, i.e., the *hun* and *po* start learning to dance synchronously. The individual starts learning about personal space, etc. as previously mentioned.

The separation of *yin* and *yang* is an important phase for growth leading to awareness, consciousness, and individuation; it is a relevant step in our humanity (See Figure 1). Failure to separate will yield individuals who behave like cavemen or have shamanistic tendencies but are unable to unleash to their full potential thanks to delusional tendencies in which they are incapable of separating this world from others.

Other individuals might exhibit narcissistic, petulant, disrespectful, inconsiderate and amoral tendencies as well as the propensity to have tantrums. Deep down, the Id thinks it is the Self and thus behaves like a god-figure, demanding and expecting admiration, blind loyalty, and obedience. This process of tampered *yin-yang* separation can be seen as "failure to launch."

Figure 1.



In his book, *Theory of Psychoanalysis*, Carl G Jung clearly explains what Sigmund Freud meant by libido,[14] and sexuality.[15] The explanation he provides[16] does sound like what Chinese medicine calls *ming meng* fire and *jing*.[17] Perhaps, a closer look at the Sinew and Luo meridians can clarify this.

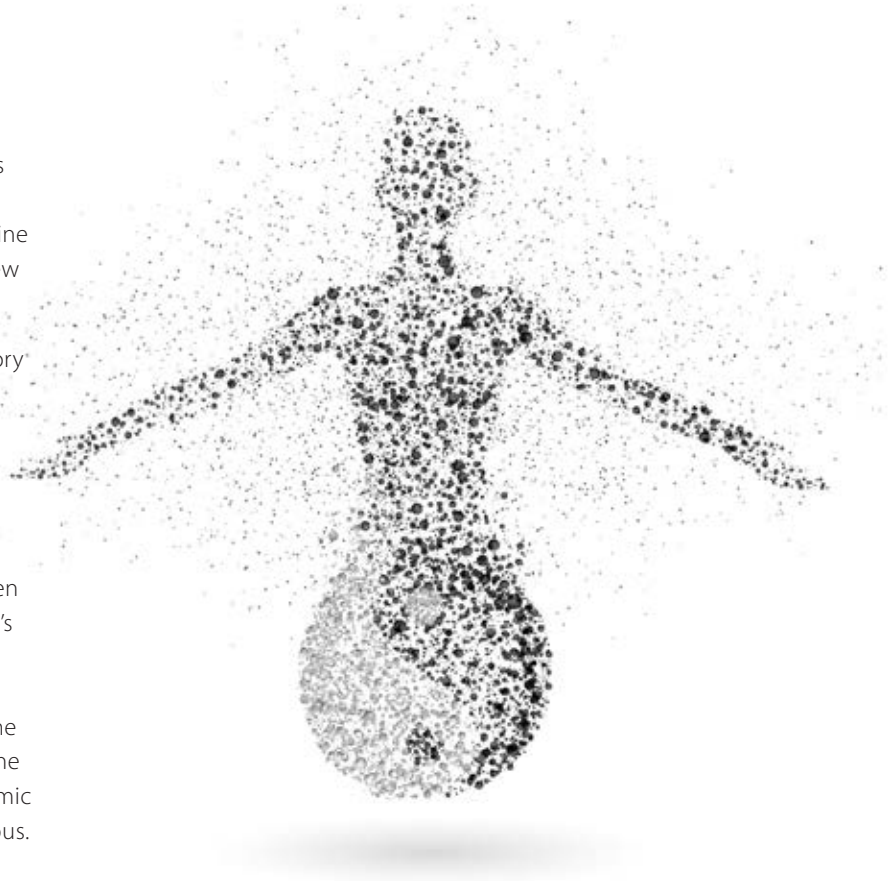
A closer look at the Kidney Sinew meridian delineates a trajectory towards the lower *jiao* (to be specific, the reproductive organs) and the nape or medulla oblongata. The pathway to the nape does open our mind to considering how much influence the Kidney meridian exerts on the medulla. Certainly, the Kidney meridian does meet the description of the Id.

Two other meridians that help understand the dynamic between the Ego and Id are the Liver Sinew and Luo meridians. The Liver's *luo* meridian's pathway goes to the external genitalia while the primary meridian connection to DU-20 helps understand the function of the *jue yin* meridian, linking the unconscious with the conscious. The Liver is a carrier of that *qi* which emerges from the *ming meng* fire and provides a smooth transition. It is this dynamic that prompted Maciocia[10] to consider the *hun* as the unconscious.

Finally, the Heart Protector can be understood as the function that operates the defense mechanisms. The Heart Protector's job to protect from the "frictions" or surges created by the Id and correlates with the concept of the Ego in psychology. Maciocia shows how the character and cognates for *shen* have a tendency to relate with the mind, self,[18] and the ability to project outward, and identify with others.[19]

In psychology terms, the ability to "project outwards" correlates with a defense mechanism where the person transfers the issues to the "object of love"[20] by using asceticism, intellectualism, or even narcissism. The acupoint PC-5 (*jian shi-intermediary*) denotes a gate that connects between the Heart and Kidney (*shao yin*) or Self (mind) and the Id. The Liver and Heart Protector, as *jue yin* meridians, do point to a close relationship with the delivering and processing of information from the Id. It also strategically determines the most effective defense mechanism to use when confronted with "libidinal drives."

In summary, the Ego and Id are represented by *yin-yang* symbol. The separation of both elicits a dynamic towards developing an identity which is protected by the Ego. The Id and Ego are *shao yin* and are bridged by the *jue yin* meridian. The libidinal drive, which is the ming men fire and *jing*, are transported by *shao yang* and *jue yin* meridians. This dynamic is known as ministerial fire, source *qi*, and is the root for other names given to *qi* and essence traveling along our body.



"The pathway to the nape does open our mind to considering how much influence the Kidney meridian exerts on the medulla. Certainly, the Kidney meridian does meet the description of the Id."

The inherent relationship between Heart-Heart Protector-Kidney meridians gives rise to internal attacks or the development of psycho-emotional conditions rooted on libidinal drives rather than external situations that shape our character. Understanding these concepts in this context can help how we treat and approach different psycho-emotional disorders.

References

1. "It is meaningless to speak of repression where the ego is still merged with the id." Freud A. The Ego and the Mechanisms of Defense Revised Edition. Madison: International Universities Press, Inc; 1966.
2. "Since there are two autonomous centers of psychic being, the relation between the two centers becomes vitally important. The ego's relation to the Self is a highly problematic one […] It is generally accepted among analytical psychologists that the task of the first half of like involves ego development with progressive *separation* between ego and self, whereas the second half of life requires a surrender or at least a relativization of the ego as it experiences and relates to the Self. […] The process of alternation between ego-Self union and ego-Self separation (italics are added for emphasis) seems to occur repeatedly throughout the life of the individual both in childhood and in maturity." Edinger EF. Ego and Archetype. Boston: Shambala Publications, Inc; 1972.
3. "The integration now taking place in the form of the ego identity is more than the sum of the childhood identifications. It is the inner capital accrued from all those experiences of each successive stage, when a meaningful identification led to a successful alignment of the individual's *basic drives* with his *endowment* and his *opportunities*." Erikson EH. Identity and the Life Cycle. New York: WW Norton & Company; 1980.

4. "We conceive libido now simply as energy, so that we are in the position to figure the manifold processes as forms of energy. […] We term libido that energy which manifests itself by vital processes, which is subjectively perceived as aspiration, longing and striving. We see in the diversity of natural phenomena the desire, the libido, in the most diverse applications and forms." Jung CG. Theory of Psychoanalysis. New York: Nervous and Mental Disease Publishing Co; 1915.
5. "As we have already boldly concluded that the libido, which originally subserved the creation of eggs and seed, is now firmly organized in the function of nest-building, and can no longer be employed otherwise, we are similarly obliged to include in this conception every desire, hunger no less. We have no warrant whatever for differentiating essentially the desire to build nests from the desire to eat." Jung CG. Theory of Psychoanalysis. New York: Nervous and Mental Disease Publishing Co; 1915.
6. "Thus we arrive rather at a biological conception of sexuality, which includes both a series of psychological phenomena as well as a series of physiological functions. If we might be allowed to make use of an old but practical classification, we might be identified sexuality with the so-called instinct of the preservation of the species, as opposed in some way to the instinct of self-preservation. Looking at sexuality from this point of view, we shall not be astonished to find that the root of the instinct of race preservation, so extraordinarily important in nature, goes much deeper than the limited conception of sexuality would ever allow." Jung CG. Theory of Psychoanalysis. New York: Nervous and Mental Disease Publishing Co; 1915.
7. "Generally speaking, we first find the libido as the energy of vital activities acting in the zone of the function of nutrition. Through the rhythmical movements in the act of sucking, nourishment is taken with all signs of satisfaction. As the individual grows and his organs develop, the libido creates new ways of desire, new activities and satisfactions. Now the original model rhythmic activity, creating pleasure and satisfaction must be transferred to other functions which have their final goal in sexuality." Jung CG. Theory of Psychoanalysis. New York: Nervous and Mental Disease Publishing Co; 1915.
8. "However, if the ego feels itself abandoned by these protective higher powers or if the demands of the instinctual impulses become excessive, its mute hostility to instinct is intensified to the point of anxiety." Freud A. The Ego and the Mechanisms of Defense Revised Edition. Madison: International Universities Press, Inc.; 1966.
9. "However, the ego does not defend itself only against the unpleasure arising from within. In the same early period in which it becomes acquainted with dangerous internal instinctual stimuli it also experiences unpleasure which has its sources in the outside world." Freud A. The Ego and the Mechanisms of Defense Revised Edition. Madison: International Universities Press, Inc; 1966.
10. See references 4, 5, 6, and 7.
11. In the Spanish translation Teoria del Psicoanalisis libido is the word used instead of sexuality, which is used in the English version. Jung CG. Teoria del Psichoanalisis. Barcelona: Plaza & Janes, S A Editores; 1969.
12. "We know that the id impulses have of themselves no inclination to remain unconscious. They naturally tend upward and are perpetually striving to make their way into consciousness." "Freud A. The Ego and the Mechanisms of Defense Revised Edition. Madison: International Universities Press, Inc; 1966.
13. "Jung in reference how sometimes defense mechanisms defends the mind gives an example, This man solves his problem in an infantile way, that is, he replaces the suitable mode of adaptation of our former case by a mode of adaptation belonging to the infantile mind. This is regression. His libido withdraws from an obstacle which cannot be surmounted, and replaces a real action by an infantile illusion." Jung CG. Theory of Psychoanalysis. New York: Nervous and Mental Disease Publishing Co; 1915.
14. "Thus we arrive rather at a biological conception of sexuality, which includes both a series of psychological phenomena as well as a series of physiological functions. If we might be allowed to make use of an old but practical classification, we might be identified sexuality with the so-called instinct of the preservation of the species, as opposed in some way to the instinct of self-preservation. Looking at sexuality from this point of view, we shall not be astonished to find that the root of the instinct of race preservation, so extraordinarily important in nature, goes much deeper than the limited conception of sexuality would ever allow." Jung CG. Theory of Psychoanalysis. New York: Nervous and Mental Disease Publishing Co; 1915.
15. See reference 4
16. See reference 14
17. "Here for the first time libido appears in the form of an undifferentiated sexual primitive power, as an energy of growth, clearly forcing the individual towards division, budding, etc." Jung CG. Theory of Psychoanalysis. New York: Nervous and Mental Disease Publishing Co; 1915.
18. The word "Shen" can be translated in many different ways such as "mind," "spirit," "consciousness," "vitality," "expression," "soul," "energy," "god," "God," "psychic," "numinous." From a grammatical point of view, it can be a noun, adjective or verb. Maciocia G. Shen and Hun: The Psyche in Chinese Medicine. November 30, 2012. Available from: https://www.giovanni-maciocia.com/shen-and-hun-psyche-in-chinese-medicine/
19. The combination 神 is probably phonetic but the idea of spirit may have some connection with an increased or extended 申 [shen] spiritual revelation 示 [shi]. However, some find early forms representing forked lighting 電. They think, probably rightly, that these became the sign for deity from superstitious dread of lightning. It gradually took the form 申 and 示 was added when it meant Shen 神 , while 雨 rain was added when it meant lightning.

    Shen 神 is cognate with shen 申 and shen 伸. 申 means "to state," "to express," "to extend" 伸 means "to stretch," "to extend."

    I believe that this part of the character for shen reflects an extremely important function of the *shen*, i.e., the capacity to "extend" outwards, to project outwards, to relate, to communicate with others: it is what makes us relate to the world and other human beings and what makes us truly human. Maciocia G. Shen and Hun: The Psyche in Chinese Medicine. November 30, 2012. Available from: https://www.giovanni-maciocia.com/shen-and-hun-psyche-in-chinese-medicine/
20. "The most remarkable phenomena in the life of the adolescents are at the bottom connected with their object relations. It is here that the conflict between two opposite tendencies is most visible. We have seen that the repression prompted by the general antagonism to instinct usually selects for its first attack the incestuous fantasies of the prepubertal period. The suspicion and asceticism of the ego are primarily directed against the subject's fixation to all the love objects of his childhood." Freud A. The Ego and the Mechanisms of Defense Revised Edition. Madison: International Universities Press, Inc; 1966.

Reprinted from *Meridians Journal of Acupuncture and Oriental Medicine* vol 3, #1

The topic selected for this issue is:

How Do You Treat Chemotherapy-Induced Peripheral Neuropathy in Your Clinic?

Chemotherapy induced peripheral neuropathy (CIPN) is painful nerve condition caused by use of drugs that treat cancer. This condition is a side effect of modern cancer treatments that use powerful drugs such as cisplatin, carboplatin, oxaliplatin, thalidomide, ixabepilone, and docetaxil. The neuropathy can affect up to half of all cancer chemotherapy treatment patients. Statistics have shown that the prevalence of CIPN tends to decrease after six months of chemotherapy treatment.[1]

Symptoms of CIPN can range from numbness and tingling in the extremities to burning, stabbing pain and loss of fine motor skills. Other neuropathological side effects include temperature sensitivity, balance and gait problems, muscle weakness, muscle atrophy, and blood pressure fluctuations. Many of these issues can severely affect daily activities of living and require some lifestyle adjustment on the patient's part.

Since the pathomechanism of CIPN has not been determined, there are varying methods that continue to be used to alleviate symptoms. Both western and eastern medicinal treatments have been sought out with mixed results.

In TCM, this type of peripheral neuropathy can be seen as deficiency and/or stagnation due to a complex combination of *qi*, blood, and *yang*. The broad scope of traditional Chinese medicine allows multiple modalities to be used together and that complement each other. As with every Chinese medicinal diagnosis, the patient must be comprehensively evaluated and a full health history should be noted before treatment.

References

1. http://www.ncbi.nlm.nih.gov/pubmed/25261162 Seretny M, Currie GL, Sena ES, Ramnarine S, Grant R, MacLeod MR, Colvin LA, Fallon M. . Incidence, prevalence, and predictors of chemotherapy-induced peripheral neuropathy: A systematic review and meta-analysis. Pain. 2014 Dec;155(12):2461-70. doi: 10.1016/j.pain.2014.09.020. Epub 2014 Sep 23.

JASA: *The Journal of the American Society of Acupuncturists* is seeking submissions for the winter 2020 issue's Clinical Pearl topic: "How Do You Treat Leaky Gut Syndrome in Your Clinic?" Clinical Pearl submissions may be sent to Clinical Pearls Editor Tracy Soltesz at kesrya@gmail.com by January 31, 2020.

Please refer to our website for Author Guidelines and submission information: http://www.meridiansjaom.com/author-guidelines.html

How Do You Treat Chemotherapy-Induced Peripheral Neuropathy in Your Clinic?

By Erin Hurme, MSTOM, LAc

After receiving her master's degree in traditional Chinese medicine and Chinese herbology from Pacific College of Oriental Medicine San Diego, Erin Hurme also attended Chengdu University of Traditional Chinese Medicine in China. For many years she focused on treating professional athletes, including the NFL Tennessee Titans. She now practices acupuncture and provides a full granular pharmacy in her clinic, Amityville Wellness, in Amityville, New York. Erin also hosts the radio shows "Living Wholistically" and the "Erin Hurme Radio Show," and she is a professor of acupuncture at the New York College of Health Professions in Syosset, New York. In May 2016, Erin received her DAOM degree from Pacific College of Oriental Medicine San Diego. For more information, please contact her at: erin@amityvilleacupuncture.com

The most common root pathomechanisms in chemotherapy-induced peripheral neuropathy are Blood deficiency, *yin* deficiency, Blood stagnation and Heat. Treatments are focused on restoring Blood and *yin*, invigorating the Blood and clearing Heat.

Depending on which diagnosis is predominant will determine where needling and style of needling is focused. If the patient presents primarily with Blood stagnation signs, such as a numb, stabbing pain that is constant and a purple tongue with choppy pulse, then the treatment style is more aggressive with invigorating points, deeper needling, and needle retention for thirty minutes. If the patient presents as more of a deficiency, with a thin frame, pale, dry tongue, thin, weak pulse and pain described as dull numbness, then the treatment style is gentle, with light needling, more superficial needle placement, and shorter needle retention (for fifteen to twenty minutes).

"Acupuncture points used to treat chemotherapy-induced peripheral neuropathy branch symptoms are focused on increasing *qi* and blood to the extremities and the treatment principal according to their root diagnosis."

Acupuncture points used to treat chemotherapy-induced peripheral neuropathy branch symptoms are focused on increasing *qi* and blood to the extremities and the treatment principal according to their root diagnosis.

Branch points used to treat peripheral neuropathy in the legs and feet are: LV-3 (Taichong), SP-9 (Xiongxiang), GB-41 (Zulingqi), GB-34 (Yanglingquan), ST-36 (Zusanli), SP-6 (Sanyinjiao), ST-34 (Liangqiu), EX-LE10 (Bafeng), SP-10 (Xue Hai) and electrical stimulation to LV-3 (Taichong) and GB-41 (Zulingqi) at 50 Hz.

Branch points used to treat peripheral neuropathy in the arms and hands are: LI-4 (Hegu), LI-11 (Quchi), SI-3 (Houxi), and HT-3 (Shaohai) and EX-UE9 (Baxie), LI-10 (Shou San Li) and electrical stimulation to LI-4 (Hegu) and HT-3 (Shaohai) at 50 Hz.

The treatment plan is for acupuncture three sessions a week for three weeks and then reevaluate. All points are treated bilaterally and retained for the same amount of time as the branch points. Electrical stimulation is kept up for the entire length of the treatment.

References

Rostock M, Jaroslawski K, Guethlin C, Ludtke R, Schröder S, and Bartsch HH. Chemotherapy-induced peripheral neuropathy in cancer patients: A four-arm randomized trial on the effectiveness of electroacupuncture. *Evidence-Based Complementary and Alternative Medicine.* 2013; 2013(Article ID 349653): 9 pages. doi:10.1155/2013/349653

Franconi G, Manni L, Schröder S, Marchetti P, Robinson N. A systematic review of experimental and clinical acupuncture in chemotherapy-induced peripheral neuropathy. *Evidence-Based Complementary and Alternative Medicine*, 2013;(Article ID 516916): 7 pages. doi:10.1155/2013/516916

How Do You Treat Chemotherapy-Induced Peripheral Neuropathy in Your Clinic?

By Michelle N. Fedder, LAc

Michelle Fedder, MSTOM, LAc holds a post-graduate international certificate in specialty clinical training in oncology, gynecology, internal medicine, advanced acupuncture techniques, and traumatology from the International Education College of Shanghai University of TCM Shanghai, China (Shu Guang Hospital, Long Hua Hospital and The Qi Gong Institute). She also completed a one-year acupuncture fellowship at St. Vincent's Manhattan Hospital, working in the areas of rehabilitation, oncology, and geriatrics. For the past eleven years, Michelle has held positions as COO of Kamwo Herbal Pharmacy in Chinatown, New York, director of clinical services at Pacific College of Oriental Medicine (PCOM) New York, and adjunct faculty at PCOM, while maintaining a private practice, Reclining Buddha Acupuncture Clinic, in New York City. She received her DAOM from Pacific College of Oriental Medicine in spring 2016. michelle@reclining-buddhaacupuncture.com

When I was a master's student at Pacific College of Oriental Medicine in New York City, I was among the first to participate at the assistant level in our then newly-created clinical externship program at the St. Vincent's Comprehensive Cancer Care Center (now known as Mount Sinai Beth Israel Comprehensive Cancer Center-West Campus). Under the supervision of Dr. Ning Ma, LAc, MD (China), we participated in a 15-week clinical training primarily to address the needs of those patients undergoing cancer treatment.

"The protocol that we learned, used specifically in the treatment of chemotherapy-induced peripheral neuropathy, included the use of strong manual stimulation at Ji Quan HT-1."

The protocol that we learned, used specifically in the treatment of chemotherapy-induced peripheral neuropathy, included the use of strong manual stimulation at Ji Quan HT-1. The thumb of the non-dominant hand is placed on the axillary artery to avoid puncture, then Ji Quan HT-1 is needled with a relatively thick gauge needle (30 gauge or larger) with strong manual stimulation applied, while asking the patient to indicate when they felt the sensation reach the cubital crease, wrist, fingers, then ultimately the fingertips if possible.

The vast majority of patients reported significant improvement in their neuropathy by the third or fourth weekly treatment; however, since many of these patients were in a fragile state, some were reluctant to pursue further courses of this treatment protocol because it was somewhat aggressive in nature and could be painful.

In my private practice, I tend to rely predominantly on needling Ba Xie (EX) and Ba Feng (EX), using Seirin J-Type 30 mm x 20 mm (36 gauge), with no stimulation. I find that the patients tolerate this treatment well, so follow-through with longer-term compliance by seeing the patients weekly, rather than using the previously described protocol, ultimately achieves similar outcomes with a less aggressive technique.

References

1. NIH National Cancer Institute [Internet]. Bethesda: NCI; c2015 [cited 2015 November] Acupunc-ture (PDQ®) Questions and Answers About Acupuncture. Available from: http://www.cancer.gov/about-cancer/treatment/cam/patient/acupuncture-pdq/#link/_53

How Do you Treat Chemotherapy-Induced Peripheral Neuropathy in your Clinic?

By Arnaldo Oliveira, PhD, DAOM, LAc

Arnaldo Oliveira specializes in Electroacupuncture according to Voll. He is a diplomate of Oriental medicine (NCCAOM) and received his Doctor of Acupuncture and Oriental Medicine from Oregon College of Oriental Medicine. Dr. Oliveira has been in practice in his clinic in Honolulu, Hawaii, for eleven years. He may be reached at (808) 536-6333, droliveira@ibemedicine.com

Some antineoplastics that are commonly used to treat breast cancer can cause nerve damage and produce symptoms such as pain, tingling, and numbness in the arms and legs, which has been defined as chemotherapy-induced peripheral neuropathy (CIPN). Distal axonopathy is the most clinical presentation of CIPN. These side effects can significantly reduce a person's quality of life and wellbeing.[1]

"A point prescription with Master Tung's points and ear Shenmen seems to be effective to address the complaints related to CIPN."

Although in conventional care there is no standard approved treatment for CIPN,[1] it is my clinical experience that patients usually respond well to acupuncture treatments. The treatment protocol presented here is focused on the pain and numbness complaints. Chemotherapy agents usually damage the Blood and the *yang*. A point prescription with Master Tung's points and ear *shenmen* seems to be effective to address the complaints related to CIPN. Acupuncture is given for 30 minutes on the contra-lateral areas to the main pain sites. The patient is asked to move the affected regions during the treatment—for instance, finger, hand, elbow, and so forth. If still painful, needles should be further stimulated or repositioned.

Point prescription:

1. Da Bai-22.04, Ling Gu-22.05: The Dao Ma combination (Da Bai-Ling Gu) promotes strong therapeutic actions in terms of regulating *qi* and Blood. These two points also have the function of warming the *yang*.[2,3]
2. Ren Shi-33.13: Pain in the palm or fingers, arm[2,3]
3. Ren Zong-44.08: Hand pain, painful and swollen elbow, motor impairment[2,3]
4. Ce San Li-7.22, Ce Xia San Li-77.23: In Dao Ma combination for lateral epicondylitis, motor impairment of the shoulder[2,3]
5. Ear Shenmen: Peripheral neuropathy, neuralgia, stress, tension, anxiety, depression, insomnia, excessive sensitivity[4]

Needle retention for 30 minutes, light stimulation until achieving "*de qi*" sensation. Needle depth varies (consult Master Tung's texts). Acupuncture applied on the opposite side of the complaints. I use Serin needles 0.20 mm x 30 mm.

References

1. *The Chemotherapy Source Book.* Fourth edition. Philadelphia: LWW; 2007.
2. McCann H, Ross H-G. *Practical Atlas of Tung's Acupuncture.* Germany?; 2012.
3. Young WC. Lectures on *Tung's Acupuncture-Points Study.* Rowland Heights, Calif: American Chinese Medical Cultu; 2008.
4. Oleson T. *Auriculotherapy Manual: Chinese and Western Systems of Ear Acupuncture, 4e.* 4th edition. Edinburgh: Churchill Livingstone; 2013.

How Do You Treat Chemotherapy-Induced Peripheral Neuropathy in Your Clinic?

By Jennifer A. M. Stone, LAc

A 1991 graduate of the Midwest College of Oriental Medicine in Chicago, Illinois, Jennifer A. M. Stone, LAc is an adjunct clinic and research faculty member in the Department of Anesthesia and Department of Pediatric Oncology at the Indiana University School of Medicine. She is co-principal investigator of a cancer study, which is examining the impact of acupuncture on chemotherapy-induced peripheral neuropathy. She has participated in NIH-funded research on animal and human subjects. She maintains a clinic, East West Acupuncture, Inc., in Bloomington, Indiana.

Many chemotherapeutic agents cause neurotoxicity that may decrease the quality of life for patients and necessitate discontinuation of chemotherapy.[1] Types of neuropathy include chemotherapy-induced peripheral neuropathy (CIPN), motor weakness, myalgia, and arthralgia. Between 60 and 90 percent of patients receiving taxanes develop mild to moderate neuropathy, and as many as 30% of treated patients are likely to develop a disabling sensory neuropathy with up to 40% of patients requiring narcotics for pain management.[2]

"The treatment is designed to strengthen the *qi* and gently open the exterior at the same time. Points may be adjusted and tailored to each patient."

Studies investigating the effect of acupuncture on chemotherapy-induced neuropathy are limited but report promising results.[3,4,5]

Empirical evidence reported by clinicians is very positive.

About 75% of the CIPN patients I treat have post-CIPN, receiving their last chemo treatment 6-12 months prior to seeking acupuncture treatment. The other 25% are patients currently undergoing chemotherapy treatment and the acupuncture is used to help prevent side effects such as neutropenia, leucopenia and CIPN. They are treated differently.

For most post-CIPN patients I needle bilaterally in arms and legs: Many antique points including he sea; *qi* cleft points; Bai feng and Bai xi. In severe cases I use *jing well* points.

Patients should notice some change in nerve sensation such as pins and needles and sharp pains within two to three treatments. This indicates the treatment is working. I have observed complete recovery of the neuropathy in as little as two treatments and as many as eight in patients who did not have prior diabetic or spinal stenosis neuropathy.

For patients currently receiving chemotherapy I needle bilaterally: SP-6, -9; ST-36, -37; K-3, -7; GB-41; TB-5; LI-4; GB-20. Bai feng and Bai xi are not needled because I do not want to draw the chemotherapy to the extremities. LI-4 and GB-20 are used to open the gates for the windy arthralgia that is experienced by patients during chemo treatments. The treatment is designed to strengthen the *qi* and gently open the exterior at the same time. Points may be adjusted and tailored to each patient. Care is taken to strengthen the *yin*, *yang* and *qi* without driving the energy to the interior.

References

1. Seidman AD, Berry D, Cirrincione C, et al. Randomized phase III trial of weekly compared with every-3-weeks paclitaxel for metastatic breast cancer, with trastuzumab for all HER-2 overexpressors and random assignment to trastuzumab or not in HER-2 nonoverexpressors: Final results of cancer and leukemia group B protocol 9840. *J Clin Oncol.* 2008;26(10):1642-9.
2. Tanabe Y, Hashimoto K, Shimizu C, et al. Paclitaxel-induced peripheral neuropathy in patients receiving adjuvant chemotherapy for breast cancer. *Int J Clin Oncol.* 2013;18(1):132-8.
3. Stone JA, Johnstone PA. Mechanisms of action for acupuncture in the oncology setting. *Curr Treat Options Oncol.* 2010;11(3-4):118-127.
4. Deng G, Vickers A, Simon YK & Cassileth BR. Acupuncture: Integration into cancer care. *Journal of the Society for Integrative Oncology.* 2005;4(2):86-92.
5. Wong R, Sagar S. Acupuncture treatment for chemotherapy-induced peripheral neuropathy–A case series. *Acupunct Med.* 2006;24(2):87-91.

Exceptional Results in Traditional Chinese Medicine and Oncology: A Focus Dryness and Heat Part One, Radiation: External Dryness

By Yair Maimon, OMD, PhD, Ac

Dr. Maimon heads the Tal Integrative Cancer Research Center, Institute of Oncology-Sheba Academic Hospital, Tel Hashomer, Israel. He serves as the president of the International Congress of Chinese Medicine in Israel (ICCM) and the head of the Refuot Integrative Medicine Center. With over 30 years of clinical, academic, and research experience in the field of integrative and Chinese medicine, Dr. Maimon combines scientific research with the inspiration from a deep understanding of Chinese medicine. He has been a keynote speaker for numerous congresses and TCM postgraduate courses. Dr. Maimon is the founder and director of a new innovative eLearning academy, the TCM Academy of Integrative Medicine, www.tcm.ac.

The treatment of cancer patients in traditional Chinese medicine (TCM) presents both new challenges and great opportunities for acupuncturist to understand and develop their skills in this emerging field of oncology acupuncture (OA). During the past several years, there has been a growing body of research concerning this topic as well.

It also should be remembered that the long established Chinese medical knowledge as it concerns oncology can also be applied to the treatment of immune system as well as prevention of disease in general. Getting acquainted with the research results and protocols can enable TCM practitioners to communicate better with the western medical community and the oncologist by helping to bridge east and west.

Research

Recently, there have been major advances in research of OA, which has led to many publications of clinical trials showing strong evidence to support the use of acupuncture for cancer patients. Recent new developments include the effect of OA on the quality of life at different stages of cancer treatment such as chemotherapy, surgery, and radiation as well as its ability to give relief to the side effects of cancer treatment such as pain after surgery. It has also been shown to reduce side effects of anti-hormonal treatment for breast cancer, reduce hot flashes and joint's pain that occur with breast cancer and prostate cancer, and help increase in the immune system's ability to aid cancer patients and more.

Dryness- *external and internal*

There are two types of unusual dryness that occurs during the treatment of cancer. One is from external causes due to exposure to radiation treatments, while the other is from internal causes, mainly due to the treatment of anti-hormonal (especially anti-estrogen) medicine.

These types of treatments are often given over long periods, often up to 5-7 years for women diagnosed with breast cancer, in which the cancer cells are sensitive to estrogen. This article focuses on the treatment of external type of dryness, i.e., the treatment of the side effects of radiation.

"It also should be remembered that the long established Chinese medical knowledge as it concerns oncology can also be applied to the treatment of immune system as well as prevention of disease in general. Getting acquainted with the research results and protocols can enable TCM practitioners to communicate better with the western medical community and the oncologist by helping to bridge east and west."

Radiation is considered toxic Heat. Heat, particularly in such concentrations, has a tendency to create dryness, especially when the radiation is affecting the mucus producing cells such as in the mouth and the digestive system. This is seen particularly with head and neck cancers. In TCM we can classify it as Heat and dryness in the *yang ming* – Stomach and Large Intestines (St-Li). Also, the *yang ming* channels can be used to treat this condition since they have the capacity to reduce heat and promote the production of body fluids in mucus membranes such as in the digestive system and the mouth.

Who would believe that LI-2 will deserve such detailed scientific research?

One of the main points which is used in order to reduce dryness of mouth is Li-2, since it is a water point on a *yang ming* channel. An interesting study has measured the effect of this point by functional magnetic resonance imaging (fMRI) changes and saliva production. This study results clearly demonstrate that during the needling of this point, there are changes in the brain and at the same time increased production of saliva. This study confirms what is traditionally known—that this point affects the mouth and salivation. These findings are another unexpected proof to our TCM knowledge. *Activation regions shown by fMRI signals associated with true acupuncture were compared to those from sham acupuncture.*[1]

An interview with the researcher Dr. Gery Dang and in depth understanding of this study can be found at this link. Another study of head and neck cancer that has achieved promising results has shown that most patients in the group treated by acupuncture (86%) had a positive treatment response to xerostomia (dry mouth) symptoms. This study used a preselected group of acupuncture points, including electro-acupuncture on bilateral points (Sp-6), (ST-36), (LI-4), (CV-24). The treatment was stimulated twice weekly for a total of 24 sessions given over a 12 week period.[2] Full explanation of the treatment on radiotherapy by acupuncture and more research: link

Comment: Personally I would have liked to see a more thoughtful point selection including not just obvious *yang ming* points such as ST-36 and LI-4 and use water points such as Li-2 or St-44. The addition of Sp-6 can also be viewed in the same way. It is an obvious point used to tonify the *yin*, which may be needed in case of chronic dryness. Yet perhaps Kid-6 (Tonifying Kidney *Yin*—a channel which also passes through the neck area) or Lu-5 (the water point and *yin* channel of Li) could have been a reasonable choice, which reflects a deeper TCM understanding. However, the use of CV-24 is a good choice.

Herbal medicine offers protection and increases the effect of radiotherapy

A well-researched formula, LCS101, (Protectival) was developed by a team of specialists as well as myself. During scientific studies, when it was used along with radiotherapy, this formula has shown to not just protect cells and patients from the side effects of chemotherapy protection but also exhibit a synergy to better destroy cancer cells. These rather exceptional findings mean that LCS101 (Protectival) is safe[3] to use with radiotherapy and can potentially even make the radiotherapy work more effectively. The same formula has shown to have a selective effect—while still protecting normal cells from chemotherapy, it promoted the killing of cancer cells.[4]

Final note

Combining different strategies in TCM both in acupuncture and herbal medicine has had a vast contribution to scientific knowledge about the treatment of cancer. TCM has been shown to allow faster and better healing with fewer side effects for cancer patients.

References:

1. Deng G et al .Functional magnetic resonance imaging (fMRI) changes and saliva production associated with acupuncture at LI-2 acupuncture point: A randomized controlled study. *BMC Complement Altern Med*; 2008. 8: 37.
2. Raimond K. et al. Phase II results of RTOG 0537: A phase II/III study comparing acupuncture-like transcutaneous electrical nerve stimulation versus pilocarpine in treating early radiation-induced xerostomia. *Cancer;* 2012 September 1; 118(17): 4244–42.
3. Cohen Z et al. Effect of the botanical formula LCS101 on the anti-cancer effects of radiation therapy. *Journal of Cancer Research and Clinical Oncology*. March 2019; 145(3): 609–613.
4. Cohen Z and Maimon Y et al. Selective anticancer effects and protection from chemotherapy by the botanical compound LCS101: Implications for cancer treatment. *International Journal of Oncology.* Received August 10, 2014; Accepted September 25, 2014 DOI: 10.3892

Dear Editor,

Congratulations on the excellent summer issue of JASA. Reading the scholarly reports of acupuncture research and practice in a variety of settings, for a variety of conditions, in coordination with a range of other health care professionals is inspiring. We've come a long way.

Unfortunately, there are some serious storm clouds on the horizon and no one seems to be paying attention.

We've done a great job creating a demand for acupuncture but we're not doing enough to create an adequate supply of Licensed Acupuncturists. The good news is that Medicare is taking a step towards covering acupuncture, but the bad news is this: Who will serve the more than 45 million Medicare beneficiaries who may soon have access to LAcs?

In 2015 it was reported that there were fewer than 35,000 Licensed Acupuncturists (https://www.ncbi.nlm.nih.gov/pubmed/29397086). This number is, in actuality, a count of active state licenses, over-estimating the number of unique working practitioners. Furthermore, the licensees were not evenly distributed across the U.S. And, according to the NCCAOM's letter to the Centers for Medicare &Medicaid Services, only the 18,000 LAcs with an active NCCAOM credential are qualified to participate in Medicare.

In the past five years, enrollment in acupuncture schools has dropped more than 20%. This trend has received very little attention. Those who investigate the field as a possible career are discouraged by the required investment of time and money along with the uncertainty about whether their training and credentials will be sufficient in the future. Most new graduates have significant student debt, making it difficult to establish a practice. Some of our most experienced LAcs are retiring and too often can't find new practitioners to take over their practices.

Expanded insurance coverage for acupuncture means Acupuncturists are spending increasing amounts of time and effort to obtain decreasing reimbursements. This may become even more problematic with Medicare coverage.

Reaching consensus on solutions has never been a strong suit for the profession. *But we must try.* We must acknowledge that there is a problem, get past the victim mentality, and prioritize and support efforts to address the looming shortage of practitioners.

These are some steps that could help:

- Educational programs that focus on competencies, not hours, should take priority.
- Expenses should be minimized for that training via distance education and the apprenticeships (or clinical internships) which have served us well for many generations.
- Use licensure exams that test only standards for safe and competent practice, not specific knowledge that's irrelevant to practice. This is critical when it comes to reforming our education.
- Employers can and should take responsibility for additional specialty training and assessment. Schools should bear responsibility for assessing knowledge of particular traditions/lineages.
- The profession should commit to protecting licensure for everyone who has sufficient training and knowledge to practice acupuncture safely. Requiring all Acupuncturists to have additional training in other modalities or to carry additional certificates or credentials is an unnecessary burden.
- Practitioners should be encouraged and supported financially (via scholarships and grants) to provide services in underserved areas.

Reading the ASA journal, it's easy to think "it's the best of times" for the profession. However, looking at the declining numbers of people entering the field and the increasing struggles of those already in the field (at the same time there is increasing demand for acupuncture) raises the prospect that "the worst of times" may be just around the corner.

I hope that JASA's readers, and the profession as a whole, will acknowledge the challenges we face and commit to workable actions to mitigate these challenges. The sooner we begin, the better our odds.

Sincerely,
Elaine Wolf Komarow, LAc Dipl Ac (NCCAOM)

Elaine Wolf Komarow has been an NCCAOM-credentialed practitioner in private practice since 1995. She has also served the profession on the Board of the Acupuncture Society of Virginia (ASVA), the Advisory Board on Acupuncture to the Virginia Board of Medicine, and the AAAOM. She also represents the ASVA on the ASA Council of State Associations. In January 2013, Elaine began a blog, The Acupuncture Observer. It may be found at: theacupunctureobserver.com

Do You Have an Opinion About These Important Issues?

JASA welcomes letters to the editor from our readership. Please send them to meridiansjaom@gmail.com and be sure to include your full name and any licenses and/or titles, your phone number, and email address.

IDIOPATHIC PERIPHERAL NEUROPATHY AND DIZZINESS
CONTINUED FROM PAGE 25

18. Pock A. Immediate resolution of symptoms following auricular acupuncture in a patient with acute vertigo superimposed on refractory, chronic disequilibrium. *Medical Acupuncture.* 2007; 19(1): 21–24.
19. Deng S-Z, He S, Huang L-H, Zhao XF, & Meng Z-H. Acupressure effectiveness in patients with acute vertigo. *Journal of alternative and complementary medicine.* 2013; (New York, N.Y.), 6.
20. Fu L. Ten illustrative cases in the treatment of vertigo. *The Journal of the American College of Traditional Chinese Medicine.* 1983; 4: 19–26.
21. Yi Q. Vertigo. *The Journal of the American College of Traditional Chinese Medicine.* 1985; 2: 17–19.
22. Han C. Nine principles for treating vertigo. *The Journal of the American College of Traditional Chinese Medicine.* 1983; 4, 12–18.
23. Jing L. Vertigo xuan yun. *The Journal of the American College of Traditional Chinese Medicine.* 1983; (4), 3–11.
24. Alessandrini M, Napolitano B, Micarelli A, de Padova A, & Bruno E. Acupressure effectiveness on acute vertiginous patients: A double blind randomized study. *The Journal of Alternative and Complementary Medicine.* 2012; 18(12): 1121–1126.
25. Chen H. Muscle channel technique for peripheral sensory neuropathy. *Medical Acupuncture.* 2010; 22(1): 57-59.
26. Cowan B K. Electroacupuncture in the treatment of peripheral neuropathy. *Medical Acupuncture.* 2010; 22(2): 129-133.
27. Bensky D & Barolet R. *Chinese Herbal Medicine: Formulas and Strategies.* Eastland Press. 1990.
28. Mao S. Treatment of 30 cases of vertebrobasilar transient ischemic vertigo with Buyang Huanwu decoction. *Chinese Journal of Integrated Traditional and Western Medicine.* 1998; 4(4), 298–300.
29. Deadman P, Al-Khafaji M, & Baker K. (2007). *A Manual of Acupuncture.* Hove: Journal of Chinese Medicine Publications. 2007.

Society for Integrative Oncology Conference 2019

By Jason Bussell, PhD, MBA, MPH, LAc

The Society for Integrative Oncology (SIO) held its 16th annual conference in New York City on October 19-21, 2019. Its theme was "Advancing the Science and Art of Integrative Oncology." In all, over 400 attendees, including many LAcs, had the opportunity to learn about new findings in integrative oncology covering a broad number of healthcare/scientific disciplines that have the potential to transform cancer care internationally. The Memorial Sloan Kettering Cancer Center was a major co-host.

The SIO began in 2003 with the mission to advance evidence-based, comprehensive, integrative healthcare to improve the lives of people affected by cancer. As stated in their website, the SIO has consistently encouraged rigorous scientific evaluation of both pre-clinical and clinical science, while advocating for the transformation of oncology care to integrate evidence-based complementary approaches. Its members are dedicated to improving patient experience and outcomes. Western-trained oncologists constitute the largest percentage of members, but the SIO includes nurses, psychologists, social workers, nutritionists, naturopathic doctors, herbalists, acupuncturists, massage therapists, and many other healthcare practitioners.

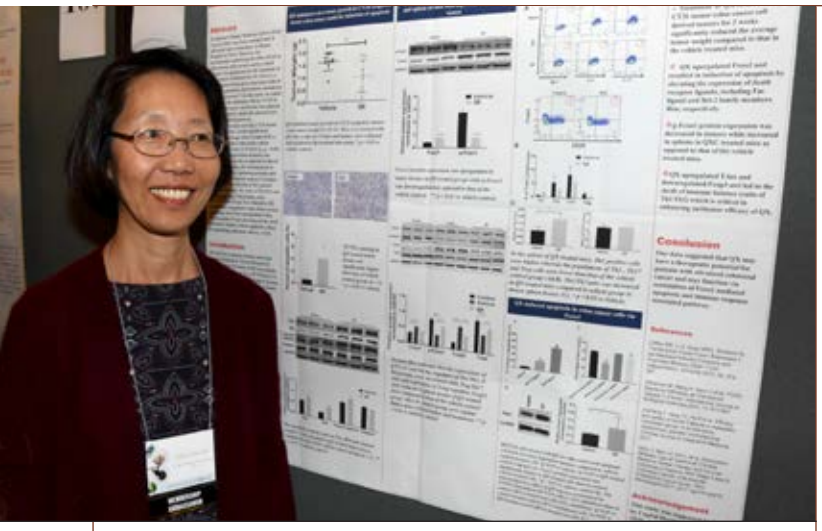
As you may know, many acupuncturists treat cancer patients. And with god reason—acupuncture is very helpful for this population. The SIO recognizes this and recommends acupuncture for many types of patients. Significantly, the American Society of Clinical Oncologists (ASCO), which primarily includes mainstream, western medicine oncologists, has adopted many of SIO's recommendations, including the use of acupuncture for nausea and vomiting. We LAcs know acupuncture can productively help more conditions or side effects than just nausea, but it is because the SIO strongly supports the ability of acupuncture to give relief that the ASCO officially recommends it as part of standard care.

The SIO is a strong ally to the acupuncture community. In fact, the SIO has a special interest group, a subgroup under its organizational umbrella, which focuses solely on acupuncture. Because there is so much current interest in acupuncture among SIO members, their conference program dedicated an entire track to it.

There were many group sessions on a variety of oncological topics, but during each break-out session, there was at least one room dedicated to acupuncture or Chinese medicine. The TCM and acupuncture sessions were filled beyond capacity; attendees were sitting on the floor or standing along the perimeter of the room and in the doorway. It was not only acupuncturists who attended these lectures—oncologic nurses also wanted to learn about the advances in oncological acupuncture.

One highlight of the conference was past SIO president, Jun J. Mao, MD, who is now current co-president of the Society of Acupuncture Research (SAR). He presented a call to action for acupuncturists to standardize pattern diagnosis to improve research. We cannot include differential patterns in research if different acupuncturists might diagnose the same patient differently. Any study that includes this would not be reproducible. However, he argued that, if psychiatrists can categorize patients with such a wide range of presentations, we should also be able to do so.

Right: Jun J. Mao, MD, current co-president of the Society of Acupuncture Research (SAR)



Peiying Yang, PhD, MD, Anderson Cancer Center

"The TCM and acupuncture sessions were filled beyond capacity; attendees were sitting on the floor or standing along the perimeter of the room and in the doorway. It was not only acupuncturists who attended these lectures—oncologic nurses also wanted to learn about the advances in oncological acupuncture."

Acupuncture researchers need a validated test for pattern diagnosis on which all can agree. By instituting this, our ability to parse data with significantly improve. For example, a study may find that acupuncture does not influence follicle development in IVF, but perhaps it is effective for the subset population with Kidney *yang* deficiency. Therefore it would be useful to be able to include pattern diagnosis in research that doesn't rely on subjectivity. SAR is considering this and will hope to act on it.

Another highlight was Yair Maimon, PhD, Ac, founder of the TCM Academy.. Based in Israel, for the past 15 years, he has been refining and researching an herbal formula which has shown to both reduce the side effects of conventional cancer treatment and increase its effectiveness. He is striving to submit this formula for FDA approval, which he estimates may take up to 10 years and cost up to one billion dollars. An interesting discussion followed as to whether or not this investment towards U.S. government approval is really necessary since a growing number of acupuncturists know it is effective and are helping to spread awareness by prescribing it for their oncology patients.

Keynote speaker was Michael W. Young, PhD, Richard and Jeanne Fisher Professor Vice President for Academic Affairs at Rockefeller University. His discussed how his work, which won him a Nobel prize in 2017, demonstrates how different cell types have their own circadian rhythms. In addition, he found that there is a genetic variant which predisposes some people to insomnia. This factors into cancer care because a large percentage of cancer patients suffer from insomnia, so knowing this may lead to new therapies. Another study presented by Jun J. Mao, MD showed that acupuncture is as effective as cognitive-behavioral therapy (CBT) in treating insomnia in cancer survivors.

The American Society of Acupuncturists represented the licensed acupuncturist community. Physicians tell us although they believe acupuncture could be helpful to their patients, they don't know how to find and refer their patients to qualified acupuncturists. ASA reps manned ASA's booth to share materials and resources for doctors and nurses, letting them know that at www.asacu.org they can find their state's ASA association, which can show them how to locate a qualified acupuncturist in their areas.

All in all, the SIO conference was well-organized and very informative. Anyone interested in learning more about integrative cancer treatment would benefit from becoming a member. More information is at: www.integrativeonc.org.

Below: Morning stretch

Response from ASA Board: Centers for Medicare and Medicaid Services

RE: Proposed Decision Memo for Acupuncture for Chronic Low Back Pain

David Dolan
Susan Miller, MD
U.S. Centers for Medicare & Medicaid Services 7500 Security Boulevard
Baltimore, MD 21244

July 24, 2019

RE: Proposed Decision Memo for Acupuncture for Chronic Low Back Pain (CAG-00452N)

Dear Dr. Miller and Mr. Dolan:

On behalf of the American Society of Acupuncturists and our 4500 members nationwide, we applaud efforts by CMS to study the effects of acupuncture for chronic low back pain (cLBP) in populations covered by Medicare. As representatives of the Licensed Acupuncturist (LAc) community and other relevant stakeholders affected by the decisions made based on the outcomes of the planned studies, we seek clarification on certain aspects of the decision memo recently issued. The text of greatest relevance is highlighted below:

> *Physician assistants, nurse practitioners/clinical nurse specialists (as identified in 1861(aa)(5)), and auxiliary personnel may furnish acupuncture if they meet all applicable state requirements and have:*
>
> - *A masters or doctoral level degree in acupuncture or Oriental Medicine from a school accredited by the Accreditation Commission on Acupuncture and Oriental Medicine (ACAOM);*
> - *a current certification by the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM); and*
> - *maintained licensure in a U.S. state or territory to practice acupuncture.*

This language creates a number of problems and is not consistent with existing law in most locales. Specifically, there are no PAs, NPs or clinical nurse specialists who would meet these requirements and not also qualify to be a "Licensed Acupuncturist or state equivalent". These individuals, if there are indeed any, would most likely hold dual licensure as a PA/NP/CNS and as a Licensed Acupuncturist. Graduation from an ACAOM accredited school and passing of the NCCAOM certification exams defines the core of this specific licensure group, which also obtained a unique Bureau of Labor Statistics (BLS) designation.[1] The language as it stands simply obscures the titling of an already existing, designated licensure group. It seems to attempt to give allowance for participation to providers who would not otherwise qualify for inclusion, unless they were already Licensed Acupuncturists.

The current framing also creates problems for qualified Licensed Acupuncturists who have trained overseas, as well as California based Licensed Acupuncturists, who represent approximately one-third of those in the United States,[2] and who have passed an equivalent examination: the California

Acupuncture Licensing Exam (CALE).[3] We propose alternate language for this section in toto that simply reads:

- *Licensed Acupuncturists or state equivalents who carry an active and unrestricted license in the state of practice may provide acupuncture.*

This approach would eliminate all confusion and conflicts with state laws, while being more inclusive of the full, qualified licensure group. This bullet could also be simply added to the existing list above, should preservation of that language be desired.

Further, we ask that the term "licensed acupuncturist" be included, where appropriate, in all data collected and reported from these studies. It is important to highlight the professionals providing the service in the studies for clarity and proper reporting of study methods. Future decisions on coverage will be made based on the outcomes of the studies requested by CMS, so those decisions should be based on the actual provisions of care including not only techniques used and number of treatments, but also including the training of the providers of the service.

Auxiliary personnel furnishing acupuncture must be under the direct supervision of a physician, physician assistant, or nurse practitioner/clinical nurse specialist.

While we understand the need for direct supervision by a physician during trial purposes, it is inconsistent with every state law that Licensed Acupuncturists be under the direct supervision of physician assistants, nurse practitioners or clinical nurse specialists. There is no precedent for this, nor does it improve patient safety, excellence in study design or provision, or any other aspect of the process. Licensed Acupuncturists are, in all but a very limited number of incidences, independent providers nationally, and have an outstanding safety profile[4]. In Hawaii, for example, only Licensed Acupuncturists (not even medical doctors) can provide acupuncture. In cases where they were or remain under supervision, only medical doctors have been in that supervisory position. We ask that this portion be revised to be consistent with state laws, and remove the terms "physician assistant" and "nurse practitioner/clinical nurse specialist."

Thank you for the opportunity to comment and your consideration. We are delighted to see CMS doing such diligent work to study acupuncture for pain, as it stands as one of the most promising options for non-pharmacological treatment.

Sincerely,

The Board of the American Society of Acupuncturists

1. Summary Report for: 29-1199.01 – Acupuncturists. O*Net On-Line. https://www.onetonline.org/link/summary/29-1199.01. Accessed July 23, 2018.
2. National Certification Commission for Acupuncture and Oriental Medicine. National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM) Fact Sheet: Information for California Licensed Acupuncturists and Other Interested Stakeholders about the NCCAOM.
3. Fan AY, Stumpf SH, Faggert Alemi S, Matecki A. Distribution of licensed acupuncturists and educational institutions in the United States at the start of 2018. Complementary Therapies in Medicine. 2018;Dec(41):295-301. doi:10.1016/j.ctim.2018.10.015
4. Chan MWC, Wu XY, Wu JCY, Wong SYS, Chung VCH. Safety of Acupuncture: Overview of Systematic Reviews. *Sci Rep.* 2017;7(1):3369. Published 2017 Jun 13. doi:10.1038/s41598-017-03272-0

ANNOUNCEMENT:

The ASA has just been approved as a full member of the American Medical Association (AMA) Health Care Professionals Advisory Committee (HCPAC)!

This position is critical to the participation of our profession on the national healthcare stage. It allows us to take part in conversations about how our services are coded and billed and this aids in the creation of new codes.

The AMA (HCPAC) committee acts as the voice for the non-MD/DO professions in this insurance arena within the AMA. It allows input into crafting the language that impacts our ability to bill and code for our services. The ASA thanks the AMA for its allowance of our participation and we look forward to many years of productive contribution.

We value the chance to contribute with our colleagues in voicing the needs and interests of the non-MD/DO provider community: Nutritionists & Dieticians, Audiologists, Physician Assistants, Respiratory Care Therapists, Massage Therapists, Nurses, Occupational Therapists, Optometrists, Chiropractors, Physical Therapists, Podiatrists, Psychologists, Speech Therapists, Athletic Trainers, Social Workers, Genetic Counselors, Pharmacists and now—Acupuncturists!

https://www.ama-assn.org/about/cpt-editorial-panel/cpt-code-process

JASA
The Journal of the American Society of Acupuncturists

The Journal of the American Society of Acupuncturists

Volume 6, No. 4 • FALL 2019

OFFICIAL JOURNAL of the American Society of Acupuncturists

Subscribe to JASA (Four Issues)

SUBSCRIBER TYPE	Print	Digital Only
General Readership	$200*	$20
AOM State Assoc. Members		FREE with online reg.**
AOM School Libraries (Each library receives two print copies per issue.)	$300*	N/A
AOM School Libraries: multiple campuses, each with a library	$450*	N/A
AOM School Libraries: less than 100 enrolled students	$100*	N/A

**Subscription to the print issues includes access to all online digital issues. **Register at www.meridiansjaom.com*

Pay by credit card www.meridiansjaom.com | Pay by check: JASA
357 S. Landmark Ave.
Bloomington, IN 47403

Questions? Contact us at meridiansjaom@gmail.com

Advertising Index

ADVERTISE in JASA

Our readership continues to grow! Please join us – you will find ad specs, deadlines and ad contract details at: www.meridiansjaom.com in the Advertising Information tab. First time ads will be discounted 15%, with a 10% discount on ads in four consecutive issues. **For more information, please write to: meridiansjaom@gmail.com.**

One Stop Shopping for Needles, Herbs and more!

LHASA OMS®

EVERYTHING ACUPUNCTURE™

www.LhasaOMS.com

+1 (800) 722-8775

UNRIVALED Selection

UNBEATABLE Prices

UNMATCHED Service