

英国中医针灸杂志



ISSN: 1745-6843
Volume 29 Issue 1
第29卷 第1期

The Journal of Chinese Medicine And Acupuncture

An Official Academic Journal of
The Association of Traditional Chinese Medicine and Acupuncture UK

30th April 2022

英国中医药学会会刊



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The Association of Traditional Chinese Medicine and Acupuncture UK

地址 Address:

ATCM, Suite 1, The Brentano Suite, Solar House

915 High Road, North Finchley, London N12 8QJ

电话/传真 Tel/Fax: 0044 (0)20 8457 2560

微信 WeChat: ATCM-OFFICE

电子邮件 Email: info@atcm.co.uk

网站 Website: www.atcm.co.uk

Mechanisms of Mechanical Pain and Acupuncture Therapy

应力性 / 机械性疼痛的分子机制和针灸治疗原理

Guozheng Wang MD, Ph.D, ATCM

摘要

痛觉来源于传入神经纤维上的伤害感受器受到的伤害性刺激。过强的温度变化，声音，光线，化学刺激和机械刺激，包括张力，压迫，牵拉，和扭曲等都会造成疼痛。应力性 / 机械力所致的疼痛在慢性疼痛中占比非常高，了解其成因，机理和治疗方法对控制慢性疼痛非常重要。本文综述了应力性 / 机械力的受体，和激活这些受体（应力敏感离子通道）的力源。更重要的是很多种类的针灸治疗对降低应力，缓解疼痛非常有帮助。本文进一步总结和讨论了针灸消除应力，减少应力敏感性离子通道的激活的可能机制。干针或称圆利针通过不同角度多次穿刺而干扰维持纤维细胞收缩的环路，减少其收缩和产生的应力，消除激痛点 / 痛性结节，以及直接缓解局部筋膜囊内的压力，而有效地治疗肌筋膜疼痛症候群。针刀和铍针通过切断部分张力纤维来减轻张力引起的疼痛。浮针是新型皮下针刺，不能直接解除张力。浮针可能是通过刺激皮下的针灸感受器，多半是树突状细胞，一种识别异物，加工抗原的免疫细胞，所产生的生物信号可能通过树突状细胞形成的网络传递给自主神经系统。配合肌肉运动，浮针的刺激通过针灸感受器和自主神经系统重新设定肌肉纤维收缩的频率，能立即缓解肌紧张，改善血液循环，而用于缓解高张力所致的疼痛，以及和其相关的症候群。但是需要进一步的研究来明确传统针灸及浮针的作用机制。本文将有助于引起对应力 / 机械力所致的疼痛和针灸治疗的重视，促进科学研究的介入，并增加针灸师治疗慢性疼痛的自信心。

Abstract

The sensation of pain is associated with the activation of the nociceptors in the primary afferent fibres by noxious stimuli, including extreme temperature, sound, light, chemical and mechanical stimuli, including tension, pressure, stretching, twisting etc. Majority of chronic pains belong to mechanical pain. Understanding the cause, mechanism and therapy of mechanical pain is very important in the management of chronic pains. In this paper, the nociceptors for mechanical stimuli and the sources of mechanical forces that activate the mechanosensitive (MS) ion channels have been reviewed. More importantly, many types of acupuncture are very helpful in reducing these mechanical forces to relieve resultant pains. The potential mechanisms of acupuncture in diminishing the mechanical forces to reduce the activation of MS ion channels have been summarized and discussed. Dry needling or Yuanli needling releases the pressure from fibroblast contraction to eliminate trigger points/nodes via multiple penetrating punctures from different angles, which disrupts local fibroblast contraction-driving circuits as well as directly eases closed-sac myofascial pressures. Therefore, they are very useful in treating myofascial pain syndrome. Needle knife/acupotomy and sword-like needle are able to cut part of the fibres within the fascia with high tension to release their stretching forces and resultant pains. Fu's subcutaneous needling (FSN) is a new type of needling by inserting needle just underneath the skin layer and cannot reduce tension directly. FSN may activate the needling sensors, likely dendritic cells for recognizing and processing antigen, to generate signals, which are then transmitted to autonomic nerve system via dendritic cell networks. Co-ordinated with muscle exercise, the FSN stimulation may immediately reset the muscle tone and reduce its tension as well as improve microcirculation. Therefore, FSN are highly effective in relieving muscle tension-related pains and other symptoms. However, further work is required to understand the true molecular mechanism of acupuncture including FSN. Overall, this work would help to increase the attention to mechanical pain and acupuncture therapy both socially and scientifically as well as to enhance the confidence of acupuncturists in treating chronic pains.

Keywords (关键词): Mechanical pain (应力性疼痛), Mechanosensitive (MS) ion channels (应力敏感离子通道), Nociceptors (伤害感受器), Fibroblasts (纤维细胞), acupuncture (针灸), Trigger points (激痛点), Dry needling (干针), Yuanli needling (圆利针), Needle knife/Acupotomy (针刀), Sword-Like needle (铍针), Fu's subcutaneous needling (FSN, 浮针), Dendritic cells (树突状细胞), Needling sensors (针灸感受器).

1. Introduction

Most sensors in human body are ion channels, a type of proteins that are inserted into cell membrane to control ion flow across the membrane by opening or closing its channels inside the proteins[1-3]. The Nobel Prize in Physiology and Medicine 2021 were awarded to the scientists who discover the sensors for touching and temperature. In theory, all types of stimuli reach certain threshold will cause pain in order to perceive any harmful factors[4]. Therefore, pain sensing mechanism is acutely a defence system to protect human body. However, excessive and long lasting pain causes stress, disability and reduction of the quality of life[5]. The chronic pain normally makes human body more sensitive to stimuli and lower the threshold so easily feels pain without strong harmful factors[5]. This initiates a vicious cycle to worsen the situation and cause more suffering. Chronic pain affects between one-third and one-half of the population of the UK[6]. It is estimated that over 60% of population suffered from chronic pain in certain times of their lives and about 19% of adult Europeans have chronic pain of moderate to severe intensity that seriously affects the quality of their social and working lives[7] with a heavy social burden[8]. The Global Burden of Disease Study 2016 showed that the high prominence of pain and pain-related diseases becomes the leading cause of disability globally[9].

The classification of types of pain is extremely confusing[10, 11]. According to body parts, there are headache, neck pain and back pain etc. According to the nature of pains, there are sharp pain, burning pain, dull or colic pain etc. According to the course of pains, there will be acute pain, chronic pain, intermittent pain etc. According to the pathological mechanisms, there will be nociceptive pain, caused by extreme temperature, light etc; Nociceptive inflammatory pain caused by infection, and inflammation etc; Neuropathic pain caused by peripheral nerve, spinal cord or brain injury; Mechanical pain caused by pressure, tension or cramp etc.

Mechanical pain is the pain that is caused by mechanical forces, such as compression, tension, bending, torsion etc[12]. In most cases, mechanical pain results from poor posturing, long-time constraining certain muscles, and incorrectly bending and lifting. Mechanical pain represents the major part of chronic pains that are suitable for acupuncture therapy. However, acute mechanical pain often occurs after sudden injury or unknown reasons. Here the molecular mechanisms of mechanical pain and how the acupuncture works in treating mechanical pain will be reviewed and discussed.

2. Receptors involved in mechanical pain

Many receptors for sensing mechanical forces, termed mechanosensitive (MS) ion channels, have been identified[2, 13]. MS ion channels exist in cell

membrane of most types of cells and many of them have multiple functions and essential for life[14]. Large-conductance MS channels (MscL) and small-conductance MS channels (MscS or YGGB) are two types of MS ion channels in bacteria, archaea, and eukarya to sense stretching of the cell membrane[15]. Recent progress is from identification of eukaryotic K2P-type TREK and TRAAK as well as Piezo1 and Piezo2[16]. TRAAK and TREK-1 channels control pain produced by mechanical stimulation and both heat and cold pain perception in mice[17], whilst Piezo1 and Piezo2 are essential components of distinct mechanically activated cation channels[18]. MS ion channels could sense both the forces from membrane lipids and forces from intracellular filaments or extracellular matrices to play important roles in cell and organ functions [19].

Some of MS ion channels sense pains[20] and their sensitiveness (or threshold) can be changed by different factors or drugs to modulate their pain sensation[21, 22]. Using cultured sensory neurons in the dorsal root ganglia (DRG) cells, two classes of receptors were identified: one responding to high thresholds and another to low thresholds of mechanical stimulation[23]. A low threshold small conductance (LTSC) channel can be sensitized by prostaglandin E₂, an inflammatory mediator that is known to sensitize nociceptors to mechanical stimuli[23]. Most of pain-sensing MS ion channels present in nerve endings and sensory neurons[12] to sense mechanical stimuli, such as touching, stretching, squeezing, pressure and tension.

PIEZO2 protein expressed in sensory neurons of the dorsal root ganglia and Merkel cells is essential for mechanotransduction and pain sensation [16]. Mice with Piezo2 knockout in sensory neurons lost normal touch sensation and proprioception[24] and also reduced noxious mechanical stimulation and NGF-induced sensitization in A-Delta bone afferent neurons as well as reduced low-threshold mechanically evoked pain in cornea[25].

TACAN (Tmem120A) is identified as a sensor for mechanical pain recently[26]. Knockout of TACAN reduced the mechanosensitivity of nociceptors and behavioural responses to painful mechanical stimuli but not to thermal or touch stimuli in mice[26]. TACAN is also involved in inflammatory, but not neuropathic hyperalgesia[27].

Recent studies show specific substances with modulating roles in nociception including substance P, calcitonin gene-related peptide (CGRP), glutamate, serotonin, neuropeptide Y, lipids, etc.[28]. CGRP is a 37-amino acid neuropeptide widely distributed in the peripheral and central nervous system[29]. Co-expression of calcitonin receptor-like receptor (CLR) and receptor activity modifying protein (RAMP1) creates a CGRP receptor with a high affinity for CGRP.

CGRP and CGRP receptor may play a role in pain transmission in somatic pain conditions such as joint and muscular chronic pain, but also involved in migraines[30]. Neuropeptide Y receptor, NPY2R, signals mechanical pain, but not thermal pain transmission[31]. Sphingosine 1-phosphate (S1P) is a signaling lipid associated with chronic pain and itch and knockdown TRPV1 receptor in mice abolished S1P-evoked acute pain and heat hypersensitivity[32], indicating S1P-TRPV1 signals acute pain and lowers mechanical pain threshold[33]. The Mas-related G protein-coupled receptor D (Mrgprd) enhances the excitability of polymodal non-peptidergic nociceptors to mechanical and thermal stimuli[34].

It is known that nociceptive nerve endings embedded in muscle tissue transduce peripheral noxious stimuli into an electrical signal by ion channels to cause pain sensations. A most recent study performed systemic analyses that simulated thousands of nociceptors and identified 3 ion channels, including delayed rectifier voltage-gated K⁺ channel (Kv1.1), Piezo2 and TRPA1, as potential regulators of the nociceptor response to mechanical forces[35]. Simulating single knockouts of any of the 3 ion channels considerably altered the excitability of the nociceptor, suggesting that targeting these 3 ion channels are major mechanosensitive muscle nociceptors[35].

Although many novel discoveries in this field have been made, the pain is still a complicate process with many unknown molecules and pathways. Therefore, many details in its pathophysiology are still not clear. There is no doubt that all types of mechanical forces from different angles, such as tension, pressure, stretch, twist, etc. can be detected by receptors and interpreted as mechanical pains, but their mechanisms are still not fully clarified yet. On the other hand, each molecule or receptor plays multiple biological function. Some mechanoreceptors are involved in development, cell function as well as different types of pains. It will take many decades to have a clear view over this field.

3. Endogenous and exogenous forces that cause mechanical pains

It is very easy to understand external forces applied to human body to cause pains. However, it is not easy for laymen to understand the internal forces generated by human body itself. The exogenous forces are mainly generated by contractile cells to activate receptors and cause mechanical pains. For example, in digestive tract, air bloating (exogenous force) will increase the pressure and stretch their walls to activate the mechanoreceptors and cause pain. In RBS, the internal pressure is not increased, but the tension from smooth muscle contraction would cause the activation of mechanoreceptors and pains.

Most cells can migrate and contract, but only skeletal

muscles, smooth muscles, cardiac muscles and fibroblasts are considered as the conventional contractile cells. Majority of the forces leading to mechanical pains arise from skeletal muscle tension and contractility of fibroblasts. Myofascial pain syndrome (MPS) is a fancy way to describe muscle pain, which develops from injury or excessive strain on a particular muscle or muscle group, ligament or tendon, such as sitting on chair without movement for too long in certain occupation, or from long time exposure to cold during sleep[36]. It was believed metabolic changes in muscle tissues are the major pathological mechanism[37]. However, it is more likely due to the tension or local pressure changes that activate the mechanosensors, i.e. MS ion channels and management shifts from using analgesic drugs, muscle relaxants to acupuncture [38-40].

Smooth muscles control the function of most body systems, including circulation, digestion, respiration, sensation, etc. Stretching digestive tract, like flatulence or smooth muscle spasm, like colic, will cause severe pains, which are mediated by MS ion channels too. Smooth muscle relaxants are effective in treating irritable bowel syndrome to release spasm and pain[41] and other pains caused by smooth muscle spasm, such as stomach colic and renal colic. Cluster headache syndrome is a type of angioneurotic pain, that may involve trigeminovascular pathway and even hypothalamus, but the stretching or spasm of vascular smooth muscles could be the common generators of cluster pains.

Although the roles of both skeletal and smooth muscles in mechanical pains are easy to comprehend and understand, the roles of fibroblasts are often neglected. Actually, fibroblasts are contractile cells and distributed in whole body, mainly in tendon, ligament and fascia[42]. The fibroblasts make the fascial system, a major structure of connective tissue that support all the organs and tissues. Fibroblasts have the ability to contract themselves and to communicate with one another and play a key role in the transmission or generation of the tension produced by the muscles or themselves as well as management of the interstitial fluids[43, 44]. They are a source of nociceptive and proprioceptive information as well, which is useful for proper functioning of the body system. Their roles in mechanical pain has attracted more and more attention and are included in myofascial pain syndrome[45]. When dry needling has been developed, the trigger point concept has been introduced[46, 47]. The trigger points are all in tendon, ligament and fascia which are made of fibroblasts and collagen fibres. Fibroblasts produce collagen matrix to form the main structural component of connective tissue [48]. Fibroblast contractions are sensed by other fibroblasts in the same fibrillar extracellular matrix (ECM)[49] and produce large deformation fields in collagen[50], which could be the pathological bases of trigger points. A group of

contracted fibroblasts could make a palpable node, which has been described as trigger point due to its tenderness and relationship to the painful muscles or joints. The disappearance of the palpable node after needle punching suggest that constant contraction is the way for a group of fibroblasts to form a trigger point and simultaneously activate the MS ion channels to cause pain. Besides the obvious trigger points, it is believed many myofascial pains and tension-type headache are due to the contraction of fibroblasts or together with muscle fibres[51].

4. Effects and mechanisms of each type of acupuncture

Acupuncture is the most powerful tool to release the forces generated by contractile cells and reduce the activation of MS ion channels by mechanical stimuli. In this way, the mechanical pains, which cover majority of chronic pains, can be relieved by selection of suitable types of acupuncture and techniques.

4.1 Dry needling 干针/ Yuanli needling 圆利针/ filiform needling 毫针

The term of dry needling associated with trigger points arises from Janet Graeme Travell, a practitioners and researcher in United States to distinguish the normal needle for injection and fist described in her 1983 book, named Myofascial Pain and Dysfunction[52]. However, this technique and indications are exactly the same as YuanLi needling (translated as round-sharp needle), which is one of nine types of Ancient Chinese Acupuncture[53]. The principle for them is to pass the needles many times through the palpable nodes/trigger points or fascia, which most likely gives electrical shocks to the group of contracting fibroblasts to disrupt its circuit that control their contraction. Once the group of fibroblasts enter a relaxation status, the node/trigger point will become non-palpable. The forces generated by their contraction will be eased so the activation of MS ion channels and resultant mechanical pains will be reduced. This type of acupuncture has been widely used and been demonstrated a very effective therapy for chronic pains, particularly myofascial pain syndrome[54-56]. Classical filiform needles can also be used for this purpose, but thick ones will do better.

4.2 Needle knife /Acupotomy 针刀 and Sword-Like needle 铍针

The better tools to release tension-induced mechanical pains are needle knives (Acupotomy) and sword-like needles, which are commonly used in China by specialists. Sword-Like needles are small size of needle knives and the resultant local trauma are small and relatively safe to use. Their cutting of ligament or fascia tissues with high tension sometimes are of high risks so some practitioners performed the procedures with the guide of ultrasound devices[57]. On the other hands, these tools are very useful and normally achieve astonishing results in mechanical pain relieve in many

conditions, such as for the treatment of lumbar spinal stenosis[58], third lumbar vertebrae transverse process syndrome[59], cervical spondylotic radiculopathy[60], calcaneodynia[61], de Quervain disease[62] nerve entrapment syndrome [63] and carpal tunnel syndrome[64], superior gluteal nerve syndrome, adhesive tenosynovitis, piriformis syndrome, etc. The precision of local cutting with limited trauma directly and efficiently released the tension and associated mechanical pain, which make it more useful tools in many special conditions than traditional acupuncture, dry needling, message and even steroid injection.

4.3 Fu's subcutaneous needling (FSN) 浮针

Fu's subcutaneous needling (FSN) is a newly developed form of acupuncture, FSN uses a modified trocar acupuncture needle which is 4–5 times thicker compared to traditional filiform needles[65]. FSN is mainly designed to relax high tensioned muscles to reduce the mechanical pains, but is still effective in relaxation of smooth muscle tensions, such as in RBS, stomach colic and other conditions[66]. It may also be useful for relaxation of contracted fibroblasts but may be via different mechanisms. FSN therapy needs to identify the high tensioned muscle and horizontally insert the needle into dermis/subcutaneous layer, just underneath the skin that cover the muscle [67], then do FSN maneuver that combines sweeping the needle and exerting resistance to targeted muscle movement, termed “reperfusion” aiming to increase local blood supply. Normally the high muscle tension can be immediately released and the mechanical pains are reduced. FSN has been widely used and demonstrated its unique effects on myofascial pain syndrome as well as many other conditions that are associated with high muscle tension[68-72].

How FSN relaxes the high tensioned muscles is still not clear. The FSN is inserted under epidermis and the tissue is stimulated via sweeping the cannula within the dermis/subcutaneous layer which does not directly affect myofascial tensions. It is predicted that the sensors for needling are located in the subcutaneous layer and the dwelled dendritic cells, C fibers and connective tissue fibers as the most possible sensor candidates. Dendritic cells are immune cells that recognize foreign substances and presents foreign antigens to the immune system to trigger adaptive immunity development. It is speculated that the long dendrites of these cells can sense needling and generate signals which can be conducted via dendritic cell networks and delivered to autonomic nervous system. C fibers are afferent unmyelinated nerve fibers conveying input signals from the periphery and may sense FSN stimulation and send signals to autonomic nervous system. The strong mechanical stimulation by sweeping movement may significantly disturb the connective tissue fibers, which may conduct the energy to activate other neuro-sensors. The autonomic nervous system appears the major target of acupuncture and serves as the primary mediator between FSN stimulation and effectors, which are

muscles including both skeletal and smooth muscle.

5. Conclusion

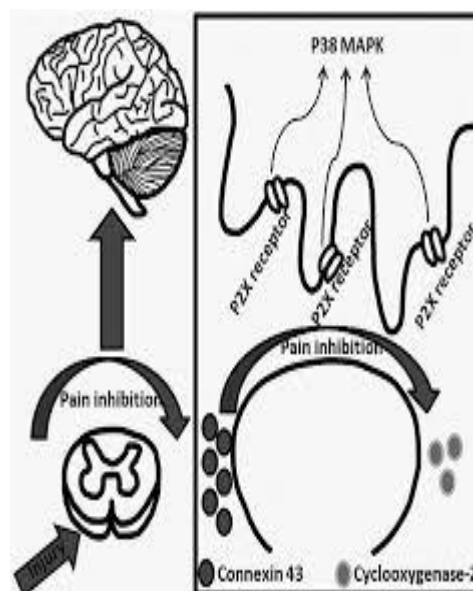
Chronic pain is a major health problem for at least one-thirds of adults. Mechanical pain is the major part of chronic pain and is the type of pain that can be managed well with acupuncture therapy. It is critical for acupuncture practitioners to understand the basic biology and identify the source of mechanical forces in order to have most successful treatment of mechanical pains with right tools and techniques. Properly handling mechanical pains with acupuncture will greatly benefit the large population of patients and the whole society.

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现代圆利针治疗痛症探讨

陈松岩

摘要： 临床痛症的特点；古代圆利针及其缺点；现代圆利针及其优点；圆利针的中医理论；临床病例及圆利针操作手法。

关键词： 痛症，圆利针，经筋，经脉，解结

骨伤科痛症是针灸门诊最常见的疾病，占临床非常大的比例。如颈椎病，肩周炎，腰突，坐骨神经痛，膝关节炎，网球肘等。随着智能手机的普及，颈痛和腰痛病人将会越来越多。多掌握治疗痛症的方法对针灸师来说意义很大。临床痛症分早期及中后期：

痛症早期特点：病程短、病痛轻，有压痛，但没有明显的痛性条索或团块。治疗：毫针，推拿，拔罐及中药等，临床效果令人满意。

痛症后期特点：得病时间较长，反复发作，因长期反复损伤而出现痛性条索和硬结。传统中医治疗往往不很理想。因为用推拿按摩指力难以松解，有的病症位置深，难以触及；用毫针疗法难以松解病变区硬结而止痛效果不确定，因针灸师的水平高低而定。

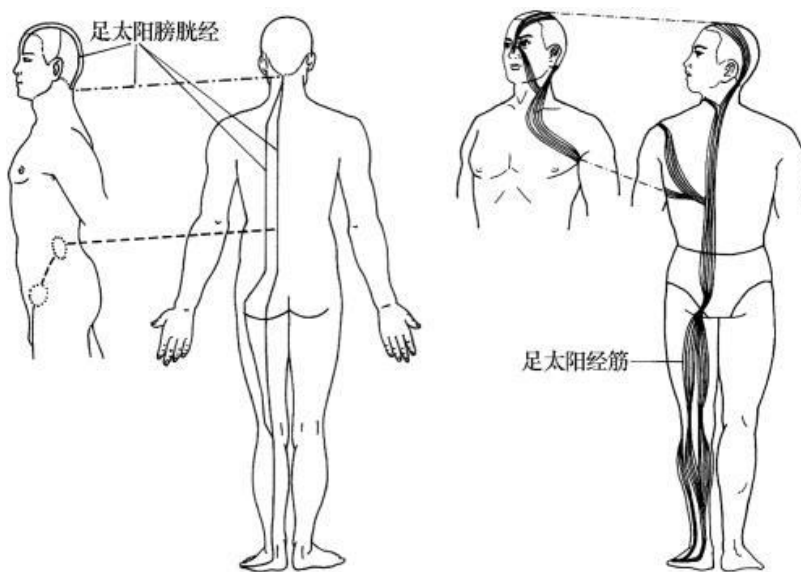
为什么疼痛后期用传统的毫针及推拿疗法效果有时不确定，止痛时间短且易复发，并且多遗留有顽固性痛点？这也是中国历代医家苦苦思索的问题

徐灵胎（清）在《针灸失传论》中说“《内经》刺法，有九变十二节——以上二十一法，视病所宜，不可更易，一法不备，则一病不愈。今则只直刺一法，此九失也。古之针制有九——亦随病所宜而用，一失其制，则病不应。今则大者如员针，小者如毫针而已，岂能治痼疾暴气？此十失也。”徐灵胎指出了清朝当时的中医所犯的错误，对现在的针灸师也很有借鉴意义。

关于此问题，《内经》更是有精彩的论述：“九针之宜，各有所为，长短大小，各有所施也，不得其用，病弗能移。疾浅针深，内伤良肉，皮肤为痈。病深针浅，病气不泻，支为大脓。病小针大，气泻太甚，疾必为害；病大针

小，气不泄泻，亦复为败。失针之宜，大者泻，小者不移。”针具，长短大小，各有不同适应症。小病用小针，伤正气；大病用小针，邪气得不到疏泻。用不得法，病就不能治好。《内经》中关于针灸的使用范围和针刺层次的论述可谓精彩之极，可见古人对病灶点在不同层次而施以不同的针法有着非常明确的认识。针具的选择在治疗中最为关键，疾病的病位精确诊断治疗，即病位结筋点是最关键的。而痛症后期的结筋点往往是立体、多层面的。在治疗方法上圆利针疗法是治疗痛症中后期的有效方法之一。

圆利针，是古代九针的第六针。《灵枢·九针论》中描述：“圆利针，取法于铍针，微大其末，反小其身，令可深内也。长一寸六分。主取痛痹者也”关于痛症的治疗，现在已经不再使用，而是临床最为常见的骨伤科痛症绝大多数属于痹症。古代圆利针针具的缺点：因针尖部位大针刺时不易进针，难操作；针刺时疼痛厉害，患者不易接受。所以古代医者使用的不多。



（图片来自百度）

自上世纪 70 年代以来,一些中国针灸师改进了古老的圆利针。卢鼎厚教授,2000 年出版的《肌肉损伤与颈肩腰臀腿痛》,用改良的圆利针治疗肌肉损伤,他用了 26 年的时间做了大量实验,验证了其科学性。胡超伟医生,著有《圆利针疗法》一书,2007 年出版。

现代圆利针的规格:0.5*60mm,75mm, 50mm 三种在临床上最常见。与古代的针相比,现代圆利针的针尖经过了特殊的反复打磨。病人更容易接受,它还保留了古代针具的优点:粗壮有力。从外观上看,现代的圆利针和毫针基本一样,只是更粗一些。

圆利针疗法中医理论:圆利针的主要功能是治疗痹证,痹症属于中医经筋病范畴。针灸师都熟悉十二经脉,通过针灸调经脉、行气血治疗痛症。其实十二经脉之外还有十二经筋,在痛症治疗方面更加有效。

经脉和经筋对比:(见上图)。

从足太阳膀胱经和足太阳经筋图可见,经脉线较经线窄,一般来说小于 2cm。但是经筋所覆盖的面积比主要经脉大,在关节和身体其他部位有带状和纺锤样的“结”。根据《内经》原文,十二经筋应该是独立于十二经脉而存在的,但即使在中国中医药大学的教科书里也很少提及。

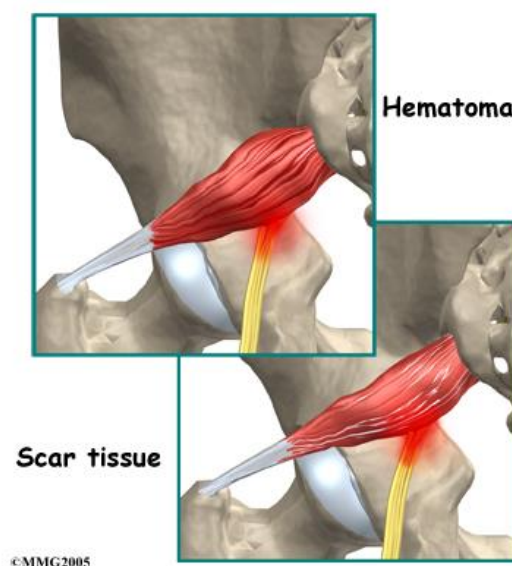
现代圆利针虽外表看起来与毫针相同,但名字不同。因为经筋、经脉致病,病位不同,治则殊异,针具有别,操作亦殊。经脉病主要使用毫针疗法,而经筋病使用圆利针等经筋疗法,临床上大多数痛症都是经筋病范畴。

关于经筋病治则:《内经》说“一经上实下虚而不通者,此必有横络盛加于大经之上,令之不通。视而泻之,此所谓解结也”这段论述非常精彩。用调经脉行气血方法治疗顽固性痛症往往效果不理想,顽痛锢痹,针之不及,供之不达,非调经之过,实结筋未解也。横络卡压,经脉闭阻,在结筋病灶点以上,气血瘀滞泛滥,结筋病灶点以下,气血虚少,此时可用粗壮针具,如凿冰解冻,决堤通闭一样,疏通活络,当气血流行而后病可除,疾可调,这就是解结。这里提到的横络是指经筋走行上出现的病理性硬结及条索组织。如肌肉、筋膜、腱鞘、滑囊、韧带上痛性结节或条索状包块。

形象地说,经脉象河流,经筋象河床,横络象河里的淤泥。淤泥阻塞时,先去除淤泥,再增加水流,使河道畅通。横络卡压的痛症治疗是同样道理:横络卡压大经致疼痛发生。治疗先解结横络去除卡压,再调经脉行气血,这样经脉通畅,疼痛去除。用毫针调

经脉行气血治疗顽固性疼痛并不理想,其中原因很大可能是未遵循以上治疗顺序。即第一步 解除横络卡压. 第二步,调经脉、行气血。

横络卡压机理及解结疗法在临床上非常常见,如梨状肌综合征。梨状肌受损伤形成血肿,后期形成病理性硬结,压迫坐骨神经,产生疼痛。这就是“横络”卡压。圆利针疗法就是直接扎入病变肌肉,解开硬结,使硬化肌肉变软,达到止痛目的。从解剖上看,梨状肌与坐骨神经关系非常紧密,有些病例甚至是坐骨神经直接从梨状肌之间穿过,所以使病变僵硬的梨状肌恢复松软正常状态是最关键的。理论上这种直达病所的治疗效果明显,其治病机理令人信服。



(图片来自百度)

圆利针的主要刺法之一是合谷刺,记载于《灵枢·官针》:“合谷刺,左右鸡足,针于分肉之间,以取肌痹。”是指在患部肌肉针刺,斜刺进针后,退回浅部又分别向左右斜刺,形如鸡爪分叉。主要用于治疗肌肉痹症等疾患。

临床病例:患者男性,外伤后腰痛及活动障碍约一周。在搬抬重物时致腰部外伤。伤后腰部剧烈疼痛,活动受限,不能挺直腰部,仰俯转侧都感到困难,卧床后起身困难。

查体:沿足太阳经筋及督脉走行切诊,查寻其结筋病灶点(横络)在双关元俞 BL26 附近。

治疗:圆利针行合谷刺约 10 分钟。一次治疗后患者腰痛明显缓解,腰部活动明显好转。二次治疗后腰痛及活动受限所有症状消失,恢复正常。患者反馈:经过治疗,他重回到工作岗位,虽在时速 200 多英里的火车上工作会容易再次受伤,但一切顺利,腰背

部正常。

圆利针疗法治疗要点：1. 虽然圆利针的直径0.5mm以上,但掌握好进针的技巧,可达到基本无痛。进针的技巧：进皮快而准,进肉缓而稳。

2. 圆利针针体粗壮有力,使得它能轻松穿过顽固性硬结。可作为治疗顽固性痛症的利器。

注意事项：1. 避免用针插入骨膜,因为病人会感到强烈的疼痛感和胀胀感,引起不适。

2. 治疗后一、二天可能会疼痛,尽管这种情况不经常发生,需告诉患者。

3. 治疗后会有皮下瘀斑,几天后会消失。虽然多数患者不会介意,但也需让患者知情。

圆利针疗法的现代科学实验证据：卢鼎厚教授

通过大量的科学实验,证明了圆利针刺入损伤肌肉,可促进肌肉结构正常,达到恢复运动功能,缓解疼痛的作用。实验证据和电镜图片显示：当圆利针刺入阿是穴后,排列紊乱的肌细胞迅速整合,使肌肉韧带的痉挛状态立即得以松解,促进结构和功能恢复正常。因此这一疗法具有稳定、持久的疗效而不是一时性的麻醉镇痛作用,这一点太重要了,说明圆利针治疗的效果是长期性的。

一些西人认为针灸不过是安慰剂,是伪科学。卢老的研究使圆利针疗法有了现代科学实验的基础。实验显示受损肌肉在针刺前后紊乱的细胞如何重新整合排列,这是肉眼在显微电镜下清清楚楚看到的,符合循证医学的标准。

Discussion on the Treatment of Pain Syndrome by Modern Round Sharp Needle

Songyan Chen

Abstract: In this article, the author introduces a special type of acupuncture needle- round sharp needle, with his discussions on the following key points, as well as own evaluation on the clinical application of round sharp needle: The characteristics of Pain syndrome; Ancient round sharp needle and its shortcomings; Modern round-sharp needle and its advantage; TCM Theory for Round-sharp Needle; Clinical cases and round sharp needle manipulation.

Key words: Pain syndrome, round sharp needle, Sinew Channel

Pain syndrome is one of the most common diseases in acupuncture clinic. It is of great significance for acupuncturists to master more effective methods for the pain treatment.

1. The characteristics of Pain syndrome.

Pain syndrome is divided into early stage and middle and late stage:

(1). The characteristics in the early stage of pain.

Got sick for short time, physical examination: pain is tender, but there are no obvious stiff muscle bands or masses. Routine Therapy: Filiform needle, Tuina therapy (massage), Cupping and herbal tea, the clinical effect is often satisfactory.

(2). The characteristics in the middle and late stage of pain.

Got sick for long time, repeated attacks. There are stiff muscle bands or masses because of long-term repeated injury. The clinical effect is often not satisfying. For Tuina(massage) therapy, it is always difficult to release the stiff or tightened muscles because the lesion of pain is often located in the deep layer of the body. For the filiform needle therapy is also difficult to release the stiff or tightened muscles. The clinical effect is uncertain and

depends on the skill of the acupuncturist.

(3). Some questions are always mentioned for the treatment of pain in the later stage, why is the effect of traditional filiform needle and Tuina(massage) therapy sometimes uncertain? Pain relief time is short and easy to relapse? Are there always some stubborn pain points left? These are also questions for many Chinese ancient acupuncturists considered.

2. The Original of Chinese ancient medical books

(1) 《On acupuncture fail to be handed down from past generations》. The writer is Lingtai Xu, a distinguished TCM expert in Qing Dynasty, It said: "There were 9 types of needles and 21 kinds of needling methods in ancient times, The type of needle and the needling method should be selected according to the condition of the disease, It cannot be replaced at will. If the selection is wrong, the disease will not heal. The acupuncturists only use one of the 9 needles: filiform needle, only use one of the 21 needling methods: direct needling method. How can cure difficult diseases?" Xu pointed out the mistakes made by TCM acupuncturists at that time, which is also of great significance to today's acupuncturists.

(2). From 《The medical classic of the Yellow Emperor》: “Which one is to be chosen of nine types of needles is the key in the treatment, each needle has its own indication. If a big needle is used for a minor illness, it will hurt the vital energy; If a small needle is used for a serious illness, the pathogenic Qi will not be dispersed. If acupuncture is used in the deep layer while the disease lies in the superficial layer, it will hurt healthy muscles; On the contrary, the pathogenic Qi cannot be dispersed either.

The discussions on the application range of acupuncture and different layer are particularly wonderful. It can be seen the ancient TCM experts had a very clear understanding of different needling methods at different layers of pathogenic factors. Accurate diagnosis and treatment of lesion location is the most important, pathological acupoints are the key to treatment, their locations are always three-dimensional and multi-layered in the late stage of Pain syndrome.

One of the effective methods for the treatment of middle and late pain syndrome is Round sharp needle therapy.

3. Ancient round sharp needle

Round sharp needle is the sixth of the ancient “Nine needles”, It is recorded in 《The medical classic of the Yellow Emperor》.《Lingshu. Nine needles theory》 said: “Round-sharp needle has a short, slender body and a rather large tail with a rounded tip coming to a sharp point. It can be used to treat carbuncle disease and Bi syndrome.” On the treatment of carbuncle disease, it is no longer used today.

The ancient round sharp needle has obvious shortcomings because the tip of the needle is large, it is difficult to insert the needle and operate. When acupuncture, patients have severe pain and are not easy to accept. So ancient acupuncturists did not use it much.

4. Advantage of modern round-sharp needle

Since the 1970s, some Chinese acupuncturists have improved the ancient round sharp needle.

(1). Professor Dinghou Lu, the writer of 《Muscle injuries and pain involving back and limbs》, Published in 2000. He treated patients with muscle injury by a kind of improved round sharp needle and took 26 years to do lots of experiments to verify its scientific nature.

(2). Chaowei Hu, He is the author of book 《Round sharp needle therapy》, Published in 2007.

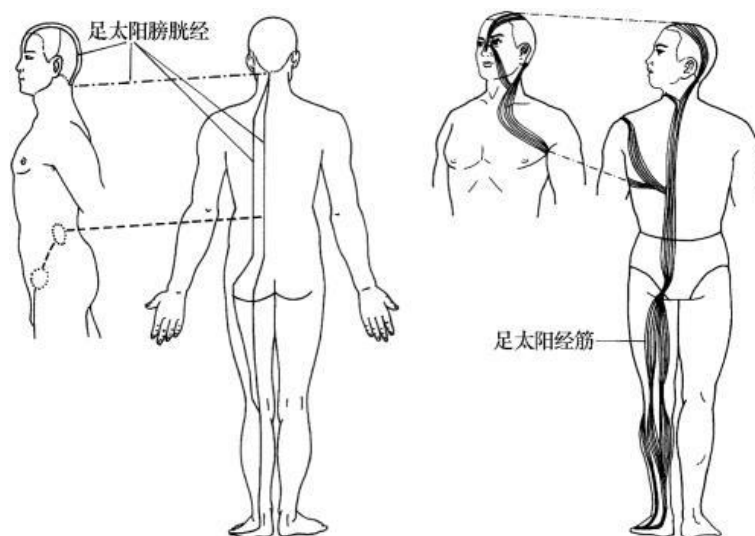
Compared with the ancient needle, The modern round sharp needle needle's tip is specially and repeatedly polished. Patients are much more likely to accept, also It retains the strong points of ancient needle: Thick and

strong. From the appearance, the modern round needle is the same as filiform needle, just the needle body is thicker.

5. TCM Theory for Round-sharp Needle.

Main function of Round Sharp needle is treating Bi syndrome. It belongs to the category of sinew channel diseases in TCM. Every acupuncturist is familiar with twelve main channel, and uses acupuncture to treat pain syndrome by regulating channel and activating qi and blood. In fact, there are twelve sinew channels besides the twelve main channels, which is more effective in the pain syndrome treatment.

Comparison of main and sinew channels:



(The picture comes from Baidu)

The primary channel line is narrower than the sinew channel. the depth of primary channels is less than 2cm. But The sinew channels always cover a larger area. The sinew channel forms a band and binding (jie) like a spindle at the joints and other areas of the body.

According to the original text of 《The medical classic of the Yellow Emperor》, The twelve sinew channels should be independent of the twelve main channels. But even in the textbooks of most Chinese University of TCM, it is rarely mentioned. The pain caused by the two is different in Lesion location and treatment principles. There are differences in needling instrument and manipulation also.

Therefore, filiform needle therapy is mainly used for 12 main channels diseases, and sinew channels therapy is used for 12 sinew channel diseases, round sharp needle therapy is one of sinew channels therapy.

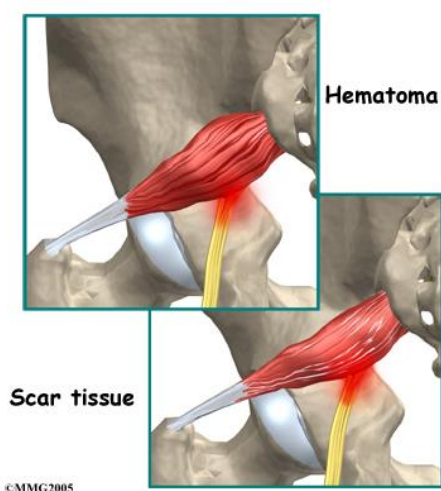
6. Treatment principles for sinew channel diseases.

The passage comes from 《The medical classic of the Yellow Emperor》. It is absolutely brilliant. The general meaning is the reason that the main channels are blocked,

It is likely that the transverse collaterals (Hengluo) press on the main meridians, which let Qi and blood not flow smoothly. The treatment is to dredge the channels and collaterals, So the main purpose to reopen the transverse collaterals with needles, which is called “jiejie” method. The range of transverse collaterals: They refer to the pathological bands or masses and cord tissue on the sinew channels, these can block the channels and cause obstruction. These are in muscles, fascias, tendon sheaths, bursae, ligament.

Figuratively speaking, the 12th main channel is like a river, and the 12th sinew channel is like a riverbed, The transverse collaterals are like the silt on the bed of the river, it is stuck on the river and makes it blocked. How to make a river smooth if the silt blocked? Firstly, remove the silt, then Increase water flow, The problem is solved. It's the same with treating pain syndrome because of Transverse collaterals block main channel, Firstly reopen transverse collaterals, then regulate channels ,activate qi and blood, achieve the purpose of pain .

7. Transverse collaterals compression and treatment: piriformis syndrome.



(The picture comes from Baidu)

The piriformis syndrome is very common disease in clinic, after piriformis was injured, it will form hematoma, and pathological tissue (scar tissue) was formed in the later stage, which compressed the sciatic nerve and cause pain. This is “transverse collaterals”compression. Round Sharp needle treatment is directly inserting the diseased muscle, reopening the scar tissue, softening the hardened muscle, and stop pain. In theory, the effect of direct treatment of the lesion site is obvious, and the mechanism of treatment is convincing. From the relationship between the piriformis and sciatic nerve, soften the hardened muscle is most important, so if choose acupoint in other area in the body, it is normally difficult to stop pain.

8. Round Sharp needle manipulation:

Hegu Needle Technique is recorded in <Lingshu.Guan needle >, It said: Obliquely insert into the lesion, return it to subcutaneous, left and right insertion, like chicken claw, towards skin and muscles, mainly used for the treatment of muscular Bi syndrome.

9. Cases: Acute Injury of lumbosacral ligament

Patient xxx, male. train worker, suffered from lower back pain for about one week. He suffered from a waist injury while lifting heavy objects. After the injury, had severe pain in the waist, lumbar movement is limited: he could not straighten his back, difficult to lie on the back, on the stomach and turn around. and difficult from lying to getting up.

Physical examination: Palpate along the foot Taiyang sinew channel and Du channel to find the pathological point and tightened tissues (Transverse collaterals), which was near BL26.

Treatment: Round sharp needle therapy: needling on point Hegu for about 10 minutes.

After the first treatment, the patient's low back pain was obviously relieved, and the waist activity was improved. After the second treatment, all symptoms disappeared and returned to normal.

REVIEW: After treatment, He went back to work on the train, it could hurt his back working on the train with 200 miles per hour. Fortunately, all went well.

10. Treatment Key points of round sharp needle therapy

- (1). Although the diameter of R-S needle is more than 0.5mm, it can be achieved without pain by mastering the technique of needle insertion: Fast and accurate when insert into skin; Slow and steady when insert into the pathological tissue.
- (2). Round sharp needle's body is strong, so it can pass through intractably hardened tissue easily. It can be used as an efficient tool to treat intractable pain.

11. Matters needing attention:

- Avoid needle inserting periosteum, because patients will feel a strong sense of pain and distention, causing discomfort.
- Pain may occur one or two days after treatment, although it does not often occur.
- 3 Sometimes there will be subcutaneous ecchymosis after treatment, which will disappear after a few days. Although most patients will not mind, they should be told in advance.

(continued on page 25)

铍针及其应用

李可心

铍针，是一种平头的刀针，起源于古代九针。铍针只是其中的一种。

古代九种针具：鑱(chān)针、圆针、鋙(chī)针、锋针、铍针、圆利针、毫针、长针和大针。



图 1：铍针的形状，是平头刀针，其手柄与针刀方向一致。

1. 筋膜的概念

筋膜是贯穿身体的一层结缔组织，它包绕着肌肉、肌群、血管、神经及骨关节，在中医叫皮、肉、筋、脉、骨。

筋膜分好几层，分别叫浅筋膜、深筋膜、内脏筋膜，它们延绵不断贯穿身体上下。

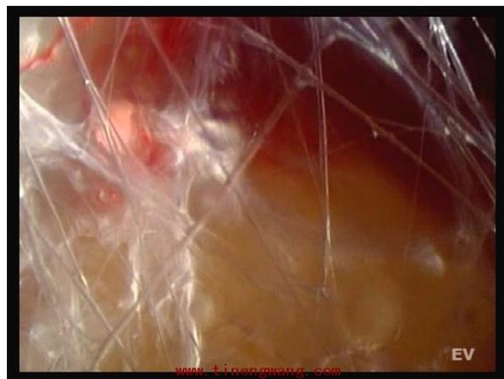


图 2：浅筋膜

打个比喻，人体筋膜就像打着隔断的一个大口袋，每

一个隔断口袋里装着人体不同的结构或器官。

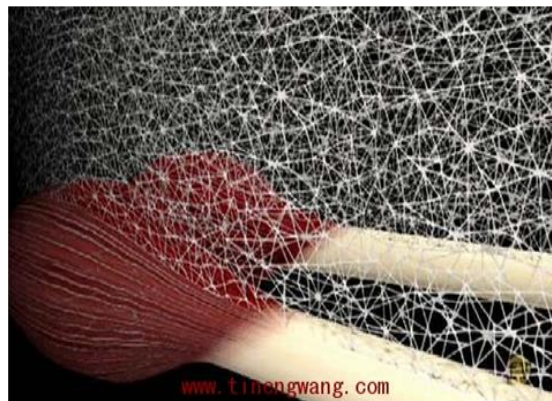


图 3：深筋膜

肌肉较发达的地方，其深筋膜就显得特别发达，强厚而坚韧。具有保护肌肉免受摩擦和约束肌肉的活动，并分隔肌群或肌群中的各间肌，以保证肌群和各间肌能单独进行活动。

深筋膜在腕踝等部可增厚形成支持带，对经过其深部的肌腱有支持和约束作用，并能改变肌力的牵引方向，以调节肌力的作用。

踝管 Malleolar canal

构成：
由内踝、跟骨内侧面和屈肌支持带共同围成。

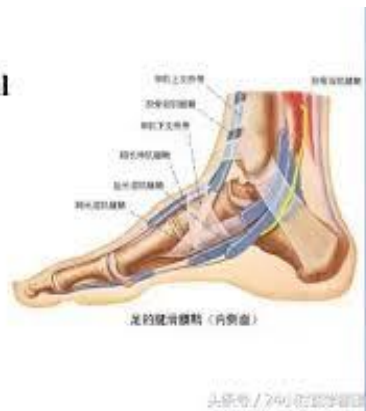


图 4：筋膜形成踝管支持带

2. 筋膜损伤张力增高的原因

- 1) 脱水：筋膜水分比例下降，粘性增加；
- 2) 淤血及渗出：局部筋膜组织瘀阻不通；
- 3) 拉伸锻炼不足，筋膜弹性下降；

- 4) 营养不良, 弹性蛋白变形, 弹性下降;
- 5) 局部损伤, 造成粘连或瘢痕;
- 6) 内科或代谢等疾患, 全身状态不佳等引发筋膜代谢障碍。

3. 筋膜损伤及其诊断

筋膜损伤分为两大类:

浅层筋膜损伤:浅层筋膜损伤, 临床多以局部疼痛为主, 定位较明确; 轻压局部即有痛感, 或有皮囊样感, 或皮下有硬结、条索等存在。

深层筋膜损伤:多为胀痛性质, 患者多定位不清, 多有牵拉和放射痛, 如在颈、腰部则表现为轻中度的神经放射样痛。需重按压才能触到痛区或有硬结存在, 有压痛及放射痛

深部肌筋膜软组织受伤后, 即可继发骨膜及肌筋膜纤维性炎症, 引发部份骨质增生, 白细胞浸润, 产生无菌性炎症, 从而引起局部结缔组织病变粘连, 造成缺血缺氧状态, 直接影响到神经末梢, 产生疼痛。疼痛又引起肌肉保护性痉挛, 一旦疼痛痉挛形成恶性循环, 无菌性炎症会进一步加重, 导致局部周围组织疼痛加剧。如肩周炎和跖筋膜炎。

4. 铍针平头针的威力在于裂口

筋膜是以一种液晶体形态存在于体内, 如果以尖头毫针刺破筋膜, 筋膜表面张力很快会封闭住圆形损伤; 但铍针所致的是线性损伤, 也就是裂伤, 在液晶态表面张力下向外翻裂开。我们都有类似体验, 如果一根针扎到皮肤, 如针灸针和缝衣针, 针眼很小, 出血也不多, 很容易封闭; 但一个刀口, 皮肤大多是外翻的, 出血也多, 可能需要缝合才能闭合伤口。所以铍针治疗结果不仅快, 而且疗效可靠、持久。

5. 铍针微创术式

铍针常用术式有八种, 但针灸师常用的有三种, 其他可以在临床中积累到一定经验时学习使用:

1. 减张术: 施针于高张力点
2. 减压法: 处理周围压迫组织
3. 触及术: 触及相应靶向组织

减张及减压术操作方法

- 1). 定位: 触诊寻找压痛点, 用指端在皮肤垂直向下做“十”字压痕, 注意“十”字压痕的交叉点对准压痛点的中心, 最好用手术笔做记号。

- 2). 消毒: 按局部常规消毒。

- 3). 进针: 针尖对准皮肤“十”字压痕或记号的中心, 快速进针, 当铍针穿过皮下时, 针尖的阻力较小, 进针的手下有种空虚感, 当针尖刺到深筋膜时, 会遇到较大的阻力, 持针的手下会有种抵抗感。

- 4). 松解: 松解是整个治疗的关键步骤。松解的目的是减低皮神经通过的周围筋膜张力和筋膜间室内压力。所以针刺的深度以铍针穿透筋膜即可, 不必深达肌层, 这样可以避免出血及减少术后反应。

铍针松解方法

根据治疗需要, 对筋膜层的松解可以采用以下几种方式:

- 1) 一点式松解: 适用于痛点局限、定位准确的病例。铍针的尖端穿过深筋膜即可, 患者的局部疼痛常随之消失。
- 2) 多点式松解: 适用于痛点局限但定位较模糊的病例, 当铍针的尖端穿过深筋膜后, 轻轻上提, 将针退出筋膜至皮下, 稍微改变进针角度, 再穿过筋膜层, 可如此重复3~5次。
- 3) 线式松解: 适用于疼痛范围较大, 病程较长, 筋膜肥厚且肌肉张力较高的病例。线式松解其实就是沿一个方向的反复连续点刺, 形成一条0.5~0.7cm的筋膜裂隙。

出针:完成松解以后, 用持针的棉球或纱布块压住进针点, 迅速将针拔出, 持续按压进针点0.5~2分钟, 同时询问患者的局部感觉, 一般患者原有的疼痛都减轻或消失。

触及术

触及术是什么呢? 就是运用铍针在皮肤、深筋膜等组织表面进行触及, 按压或刺激的一种铍针术式可以缓解疼痛, 达到镇定或抑制, 乃至调节皮神经功能或植物神经功能作用。

皮肤触及术:用铍针针头部分触压在病灶皮肤表面以达到治疗目的。可以用于治疗疼痛早期, 特别是牙痛, 肌腱末端无菌性炎症等。也可以治疗带状疱疹, 痤疮, 血管炎性皮肤或软组织红肿热痛等初发损伤。

铍针为什么可以做触及术: 铍针进针是垂直于皮肤, 以最短的距离达到所要作用于的筋膜, 甚至于不进皮, 只进行皮肤触及术。因为铍针平头刀相对于尖头是线性, 在所触及的组织表面形成一定的面积, 所以不像尖头一下就刺破触及组织。而且其所形成的压强要高于尖头针尖或斜刃刀尖, 所以易于在操

作过程中通过细致体会、揣摩组织分层结构，操作上安全可靠。



图 5：皮肤触及术

触及术治疗效果原理

- 刺激皮肤肾上腺皮质激素分泌。人体皮肤是人体最大的器官，也是激素分泌器官，直接有效刺激皮肤会使皮肤肾上腺皮质激素分泌增加，达到消炎止痛的目的；
- 超限抑制。比如铍针作用于包裹肌肉的深筋膜，给予一定强度的持续压力，痉挛的肌纤维会在超限压力下，其收缩功能被抑制并舒缓。
- 因为超长强度压力对组织的机械刺激会造成局部血液供应增加，细胞膜通透性增加，营养物质代谢交换得以改善，所以损伤细胞及组织功能得以快速修复。

6. 铍针适应症及禁忌

《黄帝内经—素问》第 51 章 《刺齐论》：“黄帝问曰：愿闻刺浅深之分。岐伯对曰：刺骨者无伤筋，刺筋者无伤肉，刺肉者无伤脉，刺脉者无伤皮，刺皮者无伤肉，刺肉者无伤筋，刺筋者无伤骨。”

铍针适应症

- 肌肉痉挛性痛症，急慢性均可；
- 肌肉、韧带末端病
- 神经干及皮神经卡压
- 血管性疾病，特别是神经卡压所致或血管受压所致，或血管变异性红肿热痛
- 腱鞘炎、滑囊炎、关节炎等
- 皮肤病：湿疹、痤疮、带状疱疹、局部瘙痒或老年瘙痒症等
- 美容
- 内科疾病及某些外科疾病等。

铍针禁忌症

- 严重体衰、体弱
- 出血性疾病或明显出血倾向
- 严重感染性疾患
- 局部严重破损和感染者

PI Needle and Its Application

Kexin Li

Pi needle is a kind of flat-headed acupuncture needle, originating from ancient nine needles. The Pi needle is just one of them.

Ancient nine needles:

铍 (chan, plowshares needle), 圆 (yuan, round needle), 鍤 (chi, spoon needle) 锋 (feng, sharp needle) 铍 (Pi, flat head needle) 圆利针 (yuanli zhen, round sharp needle), 毫针 (hao zhen, needle) 长针 (chang zhen, long needle) and 大针 (da zhen, large needle)



Fig 1: The shape of the Pi needle is a flat head needle with a handle in the same direction as the needle blade.

1. Fascia

Fascia is a layer of connective tissue that runs throughout the body, which surround muscles, muscle groups, blood vessels, nerves and skeleton system. In Chinese medicine theory these are called skin, flesh, muscle, meridian and bone.

The fascia consists of several layers, namely the superficial fascia, deep fascia, and visceral fascia, which extend all over the body.

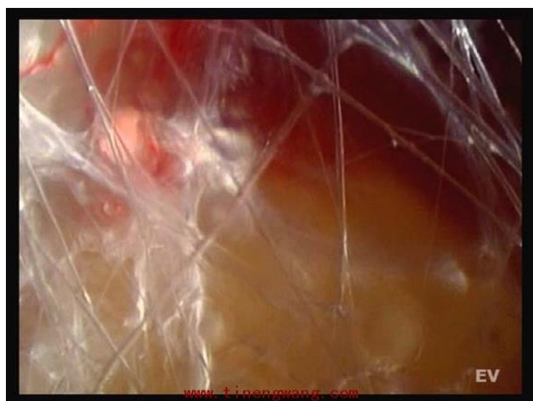


Fig 2: Superficial fascia

The fascia, by analogy, is like a large pocket with a partition, each containing a different structure or organ of the body.

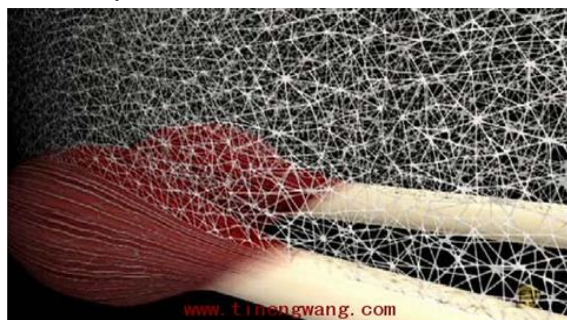


Fig 3: Deep fascia

Where the muscles are more abundant, the deep fascia is particularly well developed, strong and tough. It is designed to protect the muscle from friction and to bind the muscle, and to separate the muscle groups or inter-muscle groups, so as to ensure that the muscle groups and inter-muscle groups can move independently.

Deep fascia thickens in the wrist and ankle and forms a supporting band, which can support and restrain the tendon passing through deep part, and can change the direction of traction of muscle force to adjust the effect of muscle force.

踝管 Malleolar canal

构成：
由内踝、跟骨内侧面和屈肌支持带共同围成。



Fig 4: Fascia forms a supportive belt around malleolar canal.

2. The cause of increased tension in fascial injury

Dehydration: the water ratio of fascia decreased and the viscosity increased.

Blood stasis and exudation: local fascial tissue blood stasis and circulation block;

The elasticity of fascia decreases when stretching exercise was not enough.

Malnutrition, elastin deformation, leading to decreased elasticity;

Local injury, resulting in adhesion or scarring;

Disorders such as internal illness or metabolism, and systemic disorders, such as poor state of the body, can cause fascial metabolic disorders.

3. Fascia injury and its diagnosis

Fascial injuries fall into two categories:

Superficial fascial injury: superficial fascial injury mainly causes local pain so it is easy to locate; Tension is induced when the affected area is lightly pressed, with cyst-like sensation when palpated, subcutaneous knots and strips can be found as well.

Deep fascitis is usually of a deep distensile pain, which is often unclear in location, and often causes tension and radioactive pain. For example, in the neck and waist, it is a mild and moderate radiating neuralgia. A deeper press is usually needed to detect the pain area and there are hard knots, tenderness and radiating pain in those areas.

After injury to deep myofascial soft tissue, it can be followed by periosteum and myofascial fibrous inflammation, which leads to partial hyperplasia of bone, infiltration of white blood cells and production of non-bacterial inflammation, thus causing adhesion of local connective tissue lesions, resulting in ischemia and hypoxia in lesion area. These changes directly affect the nerve endings and produces pain. Once the pain spasm forms a vicious circle, the aseptic inflammation will further aggravate, leading to the exacerbation of the pain in the local surrounding tissues. The examples are peri-arthritis of shoulder and plantar fasciitis.

4. The power of the Pi needle is due to its flat head making slits in fascia

The fascia exists in the body in the form of liquid crystal. If the fascia is punctured with a normal pointed tip acupuncture needle, the surface tension of the fascia will soon close off the circular injury. However, the linear damage caused by flat head Pi needle, that is, the crack, turned outwards under the surface tension of liquid crystal state. We all have such experience: if a needle pierces the skin, such as acupuncture needle or sewing needle, the hole of the needle is very small, and there is not much bleeding. But with a knife cut, the skin is mostly everted, with more bleeding, which may need

stitches to close the wound. Similarly, Pi needle treatment results are not only fast, but also reliable and lasting.

5. Mini-invasive surgery or microsurgery

There are eight commonly used “surgical” methods for flat-headed Pi needles. Among them three techniques are most commonly used by acupuncturists. Others can be learned from clinical practice.

- Reduction: Needling the high tension point
- Decompression: the treatment of surrounding compressed tissue
- Touch: touch the corresponding targeted tissue

Operation methods of tension reduction and decompression

1). Positioning: palpation to find the tenderness point, with the end of thumb to press vertically downward on the skin to mark a “X” indentation, make sure the “X” indentation intersection points at the center of the tenderness point, it is better to use a surgical pen to mark.
2). Disinfection: local routine disinfection.
3). Needle insertion: the needle is pointed at the center of the “X” indentation or mark on the skin, and the needle is inserted quickly. When the Pi needle passes under the skin, the resistance of the needle point is relatively small, and there is a sense of emptiness in the hand that enters the needle. When the needle point penetrates the deep fascia, it will encounter greater resistance, and the hand that holds the needle will have a sense of resistance.
4). Release: release is the key step of the whole treatment. The purpose of the release is to reduce the peripheral fascia tension and inner pressure in fascia septum through which the cutaneous nerve passes. Therefore, the depth of Pi needle penetration can be just through the fascia, without reaching too deep into the muscular layer, which can avoid bleeding and reduce postoperative side-effect.

The method of release: Depending on treatment needs, the release of the fascia layer can be performed in the following ways:

- One-point release: it is applicable to cases with exact pain points and accurate position. The tip of the Pi needle passes through the deep fascia and pain point often disappears.
- Multi-point release: it is suitable for patients with localised pain points but vague position. When the tip of the Pi needle passes through the deep fascia, gently lift it up, pull the needle out of the fascia to the subcutaneous layer, slightly change the angle of insertion, and then pass through the fascia layer. This can be repeated 3-5 times.
- Linear release: it is suitable for patients with a wide range of pain and a long course of disease, which usually causes thickened fascia and high muscle tension. Linear release is actually repeated continuous punctures in one direction, forming a 0.5-0.7cm fascial fissure.

Needle removal: after the release is completed, press the needle entry point with the cotton ball or gauze block holding the needle, quickly pull out the needle, and keep pressing the needle entry point for 0.5 ~ 2 minutes. At the same time, ask the patient about their local sensation. Generally, the original pain is reduced or disappeared already at the needle removal.

Touch Operation

What is touch operation? It is a Pi needle technique that uses the flat head of Pi needle to touch, press or stimulate the surface of skin, deep fascia and other tissues, which can relieve pain, calm the spastic muscles or restrain the disordered muscular contraction, and even regulate the function of cutaneous nerve or autonomic nerve.

Skin touch operation: the skin surface of the lesion was touched with Pi needle tip to achieve the therapeutic purpose. It can be used to treat early pain, especially toothache, aseptic inflammation at the end of tendon, etc. It can also be used to treat incipient injuries such as herpes zoster, acne, redness, heat and pain in inflamed skin or soft tissue.



Fig 5: Skin touch operation

Pi needle insertion is perpendicular to the skin and achieves the desired fascia at the shortest distance. Because the flat head Pi needle tip is linear or even like rectangle, it forms a narrow rectangle area on the surface of the tissue it touches, so it does not puncture the tissue it touches at one stroke. Moreover, the pressure formed by it is higher than that of the pointed head or the oblique blade tip, so it is easy to understand and figure out the hierarchical structure of the tissue through detailed experience in the operation process, which is safe and reliable in operation.

Possible mechanism of touch operation technique

- Stimulate the secretion of adrenal cortical hormone in the skin. The skin is the human

body's biggest organ, is also the hormone secretion organ. Direct and effective stimulation on the skin may help increase the skin secretion of adrenal cortex hormone, hence achieves the anti-inflammatory analgesic goal;

- Over-limit inhibition. For example, when we operate Pi needle on the deep fascia that wraps muscles and give strong constant pressure, the muscle fiber in spasm will be restrained and relieved under the excessive pressure.
- Because of the mechanical stimulation of the tissue under ultra-long intensive pressure, local blood supply will be increased, cell membrane permeability will be increased, and nutrient metabolism will be improved, so the damaged cells and tissue functions can be repaired quickly.

6. Indication and Contraindication of Pi needle

Chapter 51 of *huangdi neijing* -- *su wen on ci qi*: "Huangdi asked: I want to hear how to distinguish the depth of acupuncture. Qi bo answered: One who pierces the bones should not injure the tendons, who pierces the tendons should not injure the flesh, who pierces the flesh

should not injure the vassals, who pierces the vessels should not injure the skin, who pierces the skin should not injure the muscles, who pierces muscles should not injure the bones. "

Indication of Pi needle

- Muscle spastic pain, either acute or chronic;
- Diseases of muscle and ligament ends
- Nerve trunk and cutaneous nerve compression
- Vascular diseases, especially those caused by nerve compression or vascular compression, or variant vascular erythema.
- Tenosynovitis, bursitis, arthritis, etc
- Skin diseases: eczema, acne, herpes zoster, local itching or itching in old age
- Beauty
- Medical diseases and some surgical diseases, etc.

Contraindication of Pi needle

- Severe body failure and weakness
- Hemorrhagic diseases or obvious bleeding tendency
- Serious infectious diseases
- Local serious damage and infection



The Journal of Chinese Medicine and Acupuncture

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基于“次第”理论分期针灸辨治颈椎病颈痛临床思路

栗胜勇 博士

E-mail: ssy21008@126.com Interpreter:

Clinical Analysis of Staging Differentiation and Acupuncture Treatment for Neck Pain Caused by Cervical Spondylopathy Based on the ‘Stages Theory’

Dr. Shengyong Su

中医与痛症国际学术网络大会 演讲稿

2021 年 7 月 4 日 2021

主办单位 英国中医药学会 ATCM

颈椎病系临床常见病，颈痛是颈椎病的常见主症。颈椎病颈痛发病率 正逐年上升，在教师等特定人群中其发病率可高达 47%。颈椎病是常见的 骨科疾病，近年来其发病年龄越来越年轻化，这不仅给患者造成了严重的 身心痛苦，还造成了一系列的社会问题。

针灸治疗颈椎病颈痛临床疗效确切，然而既往多数研究报道显示 临床上多依据现代医学的颈椎病病理分型。

研究背景 Introduction 根据上述分型，未能有效体现疾病发展不同阶段的病理特点， 故尚未能提出合理的治法与方药。

《伤寒论》：“伤寒之病，逐日浅深，以施方治。今世人伤…… 困乃告医，医人又不依次第而治之，则不中病，皆宜临时消息制 方，无不效也。”第 189 条：“阳明中风，口苦咽干，腹满微喘，发热恶寒，脉浮 而紧若下之则腹满小便难也。”第 90 条：“本发汗而复下之此为逆也。若先发汗治不为逆。本先下之，而反汗之为逆；若先下之，治不为逆。”

“次第”理论对临床遣方用药及疗效具有重要指导意义，对于 疾病的治疗，切不可简单对证，当仔细辨明病机，根据病情的不 同发展阶段选定治法方药，有序进行。

在临证中以“次第”理论为指导，注重疾病病情传变，重视针对病情不同发展阶段针灸方案选用时机的把握，提出基于“次第”理论分期针灸辨治颈椎病颈痛的临床思路。

1. 总体病因病机

颈椎病颈痛归属中医“项痹”“筋证”“头痛”“眩晕”等范畴 古文献对其相关记载有“项背强几几、肩似拔、颈肩痛、头项急、项痛”等。

体虚是颈椎病颈痛发病的主要内因：体虚正气不足，无力祛邪外出，邪气踞而不去，长时间留滞脏腑经络，损害 脏腑经络气机运行，或脏腑气、血、阴、阳亏虚不能濡养筋脉，或气血亏虚，运化失常，继发产生瘀血、痰饮等病理产物，阻滞经络发为本病。《素问·评热论》曰：“邪之所凑，其气必虚。”

外因责之于风寒湿邪侵袭：风寒湿邪侵袭脏腑经络，邪气留滞于筋、肉、皮、骨等处，脉络瘀滞，阻滞 不通，导致“不通则痛”，或经脉阻滞，影响气血津液运行，继发生病理 产物，加重疼痛。《素问·痹论》言：“风寒湿三气杂至，合而为痹也。”

长期姿势不当或跌扑损伤亦可导致颈痛产生：长期低头或姿势不当常使颈部负荷过重，产生劳损，导致颈部经络阻滞，脉 络不通，气机郁滞，“不通则痛”。《仙授理伤续断秘方》曰：“劳伤筋骨，最易疼痛。”

2. 基于临床的颈椎病颈痛分期标准

急性期

临床表现 颈项部酸痛、肌肉广泛紧张、僵硬、沉重、活动受限，可伴有肩背

酸痛、头枕胀痛等，晨起及长时间低头可诱发症状加重，活动后可缓解。

查体 可见颈部生理弧度存在或轻度变直，浅层肌肉广泛紧张，颈肩部可

触及明显散在压痛点，扣顶试验、椎间孔挤压试验等多为阴性。

影像学检查 颈椎生理曲度轻度改变，椎体前后缘轻度骨质增生或正常，椎间隙

正常，椎间孔清晰。

此期具有病史短、病情轻且单一的特点

缓解期

临床表现 颈部僵硬、酸胀疼痛、活动时弹响、活动或休息后症状不能缓解，可伴 双上肢或手指麻木、眩晕、头痛、耳鸣耳聋、皮肤感觉功能异常等。查体 颈椎生理曲度变直或反曲，活动度减小，颈项部肌肉紧张，棘突两侧可 触及深层压痛，颈项部钝厚感，臂丛神经牵拉试验(+)、扣顶试验(+)、椎间孔挤压试验(+)。影像学检查 DR 示颈椎生理曲度变直，椎体前后缘轻度骨质增生，椎体旋转，椎间 隙轻度变窄，椎间不稳，椎间孔较模糊，项韧带可轻度钙化等

筋结期

临床表现 颈部强直、活动受限、棘突两侧可触及明显硬结或条索状物、局部压痛，推动时有撕裂感，兼见眩晕头痛、肢体麻木、吞咽异物感等。查体 颈部活动受限，活动度明显减小，肌肉僵硬强直，棘突两侧可触及明显条 索状物或硬结，局部压痛，推动时有撕裂感，项韧带增粗僵硬，病理征阳性。影像学检查 CT、MRI 示椎间盘变性，C4-7 椎间隙狭窄，椎体明显骨质增生，骨刺、骨桥 形成，颈韧带、黄韧带和后纵韧带肥厚或钙化，小关节增生或半脱位，椎间 孔变形模糊，椎管狭窄形态改变。随着疾病进一步发展，病情迁延不愈，反复发作，在内外因素作用下，病理 产物堆积局部，形成筋结，阻滞经络气血运行

急性期治疗以刺络放血为主 缓解期治疗采用以针刺为主的综合疗法 筋结期治疗以刃针疗法为

急性期——以刺络放血为主 急性期以外感风寒湿邪为主，邪气客于经络，经络阻滞不通则痛，病性属实。《

黄帝内经》“凡治病先去其血”“血实宜决之”“宛陈则除之”“无令恶血得入于经，以成其疾”疏通经络、调和阴阳、理气活血

缓解期——采用以针刺为主的综合疗法 缓解期病性属虚实夹杂，或因感受外邪迁延不愈，久病入络，或体虚正气不足，无力祛邪外出，体虚经脉失养等。此期治疗主张针灸并用，部分患者可结合电针等疗法。疏通经络、调和气血、温通温补

筋结期——以刃针疗法为主 在内外因素作用下，病理产物堆积局部形成筋结，筋结压迫血管、神经产生相应临床症状。寒邪偏盛选火刃针，痛甚者配合拔罐疗法 松筋解结，温经活血通络

小结

颈痛是颈椎病的主要临床症状之一，急性期疼痛剧烈，缓解期或筋结期疼痛反复发作，病程长，日久可诱发失眠、抑郁等病症，对患者日常生活带来极大影响，因此，提高颈椎病颈痛的临床疗效、消除或改善患者临床症状、提高患者生活质量是近年来临床研究的热点。小结 Summary 基于长期临床观察，充分认识本病病因：体虚、风寒湿邪侵袭、长期劳损或姿势不当三因素的基础上，总结现有临床研究的不足，提出了颈椎病颈痛的临床分期，即急性期、缓解期、筋结期，并相对应提出了急性期以刺络放血为主、缓解期采用针刺为主的综合疗法、筋结期以刃针为主治疗的分期“次第”针灸治疗方案，临床上取得良好的疗效

针灸具有无不良反应、镇痛效果显著等优势，相信随着临床 研究的不断深入、相关机制研究的不断完善，基于“次第”理论 的分期针灸治疗颈椎病颈痛的临床方案将会不断被证实并加以推广 应用。

3 基于颈椎病颈痛分期的“次第”针灸治疗方案

法于往古 验于来今

浮刺法的经典溯源及其镇痛妙用

比利时仁济医药中心 王仲彬

浮刺法为中医古刺法之一，首见于《灵枢·官针》篇。原文说：“九曰浮刺。浮刺者，傍入而浮之，以治肌急而寒者也。”这条原文正是阐释浮刺法的理论基础，也是后世医家拓展浮刺法的重要依据。当代针灸专家在临床实践中积极探索，锐意革新，大大丰富了《灵枢》浮刺的内涵与外延。

今天，古法浮刺法业已发展成为一种相当成熟的浮刺疗法。而浮刺针具也扩大到多种针具，如微针、细针、粗毫针、浮刺针、圆利针、套针、新浮针等均可用作浮刺。各种针具的浮刺操作既有相同之处，也有各自特点。而其浮刺效应自然也是同中有异，丰富多彩。

浮刺疗法对于疼痛性疾病效果普遍较好。而对多种软组织伤痛的疗效更好，一般可达到稳定的远期疗效。对酸沉、麻木、胀满为主诉的病证，也能取得较好的疗效。而对非疼痛性疾病，如面瘫、面肌痉挛、脑血管意外后遗症、五官科疾病、内科疾病、妇科疾病等，也可取得一定疗效。

而正确理解《灵枢》浮刺的含义，必将有助于浮刺疗法的发展创新和临床运用。

一、“傍入而浮之”是浮刺针法的理论基础

“傍”，古代读作 bàng，用作动词，意为：靠近；临近。或依靠；依附。可以理解为紧靠着病患处（进针）。

“傍”，古代也可通假为“旁”字，读音 pàng，用作名词，意为：旁边；侧面。可以理解为在病患处的旁边或侧面（进针）。

上述两种理解，与经文原意相近，也契合后世浮刺针法的临床实践，故均可采用。

入：即刺入之意。而，递进连词，进而之意。

浮之：浮，会意字。由三点水，加一个“孚”字，会意造字而成。孚，既是声旁也是形旁，表示抓捕男童。浮，金文（水，河水）（孚，像一只手托举小孩头部），表示托举水中小孩的头部。其造字本义：托举小孩头部，教小孩漂水游泳。之，此处用作代词，可指针灸针。浮之：浮，用作动词，此处为使动用法，意为使之浮。浮之，也就是使针灸针浮起来的意思。

肌急：肌肉拘急紧张。而寒：因寒所致。寒性收引，寒性凝滞而主痛。

因此，原文的基本含义：所谓浮刺，就是傍着病患处或在病患处旁边进针，进而使针灸针浮起来，以治疗因寒所致肌肉拘急及疼痛证。

二、浮刺针法高效的关键技巧

（一）灵活选穴，傍而浮之

关于浮刺针法的选穴，可谓见仁见智，众说纷纭。有坚持遵循经络理论，循经取穴者；或取阿是穴（以痛为输）者；也有主张摆脱经络学说，在痛处旁边取穴者；或建议傍着病患处进针的；也有主张循着痛处另找患肌的；更有远近结合，经穴与阿是穴相结合者。实际上，这可能对“傍入而浮之”的不同理解所致。如果把“傍入”理解为旁入的话，那么，旁在经络、旁在穴位、旁在反映点、旁在反映区，都可以接受。浮刺取效的关键，或许不在乎是否选穴及何处进针，而在乎能否让针灸针浮起来。众所周知，现存最早的中医古籍 - 《黄帝内经》中只记载着 160 多个冠名穴位，而《灵枢·官针篇》论述的主要是九针、九刺、十二刺、五脏刺的运用原则，并没有对临床具体选穴加以注明。“师古而不泥古”，正是今天研读经典应该持有的基本立场。

(二) 重视运针的层面和区域

关于浮刺运针的层面, 业界也有不同的见解。或在皮下脂肪层; 或在疏松结缔组织层; 或在分肉之间; 或主张斜刺进针后横卧肌上; 或主张可入浅层肌肉但勿入深层肌肉(浅筋膜, 非深筋膜?)。临床实践告诉我们, 要达到浮刺效应, 必须大幅度运针。深入肌层, 恐怕不容易运针, 而且针感太强, 病人难以接受。因此, 多主张是在皮下运针。不过, 皮下的运针区域究竟有多大呢? 如果把“傍入”理解为傍着进针的话, 那么, 可在病痛之侧傍着进针(平面上的傍), 也可傍着病痛肌层进针(立体上的傍)。这样, 运针的空间就可以界定为肌层与皮肤之间的区域。这个区域在人体各部位宽窄并不相同, 可以宽(如臀腹), 也可以窄(如头额)。而“浮之”, 既可静浮, 也可动浮。而动浮呢? 既可漂浮悬浮之, 也可凸浮上浮之。这种理解如能被接受, 那么, 浮刺运针层面、运针区域及具体浮法将更有规范, 同时也解决了医者先寻痛点却在痛旁进针的矛盾。

总之, 《灵枢》浮刺在近二十年里得到了创新和发展, 不但浮刺针具得以革新, 而且浮刺针法也得以拓展。临床上浮刺疗效更得到明显的改善和提高, 浮刺针法业已创新为相当成熟的浮刺疗法。

(三) 皮下运针结合适当运动, 至为重要。

业已发现, 浮刺针法结合摇摆捻转或苍龙摆尾或加肢体活动, 是使针灸针浮起来从而达到止痛高效的必要技巧。也是浮刺效应之所以经得起重复的关键所在。运针应在皮肤与肌层之间进行。这一区域有的地方较窄, 有的地方较宽。

但临床上如何运针, 才能实现浮刺效应呢?

根据有关针灸文献记载及国内外浮刺法的临床实践, 摇针摆针、捻转提插、苍龙摆尾、调气吞咽、咳嗽叩齿、鼓腮皱眉、收腹提肛、弯腰扩胸、下蹲起立、活动肢体等动作, 均可达到“使之浮”的效应。而意大利何树槐教授善用苍龙摆尾手法, 主张每针可行手法 300 次。荷兰康力升教授则强调“摇摆捻转”的重要性。

三、明确病痛的本点及标点

临床上, 在实施浮刺疗法之前, 应按照中医整体观念,

辨证论治的精神, 并根据“治病必求于本”及“阿是穴”的判定原则, 仔细确定病痛产生的原点(本点)及病痛明显之点(标点)。本点和标点, 可能位于同一点, 也可能位于不同点。

然后可根据“急则治其标, 缓则治其本”的原则, 确定本次治疗的重点在本点还是标点。本点和标点都可以作为浮刺的靶点。因此, 明确病痛所在和病痛程度、确定本次浮刺的靶点是实施粗针浮刺疗法最为重要的前提。

四、确定本次浮刺的靶点及刺点

浮刺之刺点, 即进针点的选择, 关系到进针顺利与否和疗效的好坏。在选择进针点之前, 应当确定本次治疗的靶点, 即选择本点还是标点。一般宜在浮刺靶点的上下左右四周确定进针点, 多可选在距靶点 3-5cm 处, 以顺着经络循行方向进针为佳。特殊病证可以选择相隔更远的进针点。也可以根据辨经取穴以确定进针穴位。

在标点病痛症状明显减轻后, 还应当重视对病痛产生的原点(本点)的治疗, 以图达到既治标又治本, 稳定不反复的远期疗效。

五、浮刺针法的操作步骤

在明确病痛之本点及标点, 并确定浮刺之靶点及刺点的基础上, 就可循序实施浮刺针法的操作步骤, 即“刺、入、浮、留”等四个步骤:

(一) 浮刺之刺

在进行浮刺法操作的过程中, 医生主要应以拇指、食指、中指三指挟持针具(像持毛笔一样的姿势)进行操作。但进针时, 多应双手合作才行。

临床上实施浮刺法时, 究竟该如何进针, 即如何刺的问题, 真可谓见仁见智, 众说纷纭。有人说浮刺等于斜刺; 也有人说浮刺法类似直针刺法; 更有人说平刺应是浮刺的主要刺法等等。上述议论貌似不无道理, 其实都失之偏颇。《灵枢》经文虽有“傍入而浮”之说, 但“傍入”主要是指刺入的部位即刺点, 而非一种具体刺法。其实直刺、斜刺、平刺, 甚至直针刺法, 都可以用作浮刺之刺。

所谓直刺、斜刺或平刺,主要指针刺的角度和方向。在一般刺法中,不同的穴位对针刺角度和方向的要求也不尽相同,其目的在于方便进一步行针。但浮刺法之刺,主要指针灸针穿透皮肤这一步骤。因此,直刺、斜刺和平刺均可用作浮刺之刺。临床上一概以押手挟持管针,再以刺手持针轻捷地拍入皮下,然后去掉管子,将粗针放平,完成浮刺之刺。

而直针刺法“引皮乃刺之”,即先用押手像拉弓似的拉起皮肤或捏起皮肤,再用刺手持针在捏起部侧面拉紧的皮肤正中直刺而入,完成穿透皮肤这一步骤并实现浮刺之刺。

(二) 浮刺之入

紧接着浮刺之刺的操作步骤,则是浮刺之入。所谓浮刺之入,就是针灸针在皮下朝着靶点探入的过程。医者在针灸针穿透皮肤后,应将针体放平,然后循着刺点和靶点的连线,或持针在皮下探索深入并接近靶点;或续用直针刺法“引皮乃刺之”先拉起皮肤,然后持针在被拉起的皮肤和未拉起的肌肉之间平行深入并接近靶点;或持针傍着肌肉探入并接近靶点,然后可将针灸针平卧在肌肉之上。

浮刺之入整个过程通常既无针感也无痛感,并不追求所谓针灸得气的酸麻胀重之感,就像人轻松地走在一个小巷中似的,神而往之。此即“用针之要,无忘其神”之义。

(三) 浮刺之浮

业已发现,实施浮刺针法应通过摇摆捻转或青龙摆尾等手法,加上适量的局部或全身运动,使针灸针被托举并浮动起来,即实现浮刺之浮,从而达到高效镇痛的浮刺效应。这是浮刺法镇痛效应经得起重复的关键技巧。

浮刺之浮,可以相对地分为静浮和动浮两类。静浮指浮刺法在完成刺与入两个步骤基础上,不再操作针灸针,而让它静置于皮肤与肌肉之间,或静卧在肌肉之上。动浮指浮刺法在完成刺与入两个步骤基础上,通过“针动”和“人动”来促进针灸针“浮之”的效应。

实现浮刺“浮之”的效应,在于“针动”和“人动”两方面。所谓“针动”,指医者采用摇针摆针、捻

转提插、青龙摆尾等手法,让针灸针直接浮起来;也可在留针周围做些轻柔按摩或适量挤压等,让针灸针间接浮起来。而“人动”,则包括病人主动运动和被动运动。主动运动指病人自我运动,如调节气息、咳嗽叩齿、鼓腮皱眉、收腹提肛、弯腰扩胸、下蹲起立、活动肢体等;而被动运动则指病人在医者或他人的帮助下,进行适当的肢体关节活动。

临床上还可视病情轻重和病患状态,将“针动”的直接动针和间接动针,“人动”的主动运动和被动运动有机地结合起来,让浮刺法的神奇效应更好地发挥出来,并完成浮刺之浮。

(四) 浮刺之留

而浮刺法的留置环节,指在完成浮刺之浮的操作之后,可将针灸针留置一段时间。这就类似于针灸针处于静浮状态。也可在留置期间令病人适当做些局部动作或全身活动,进而保持动浮效应。

这种留针一般以30分钟至1小时为宜。如果有特殊需要,可继续留针1-2小时。留置环节应注意固定针体,且不宜留置过长时间。

六、浮刺法操作的细化方法

浮刺之浮的操作方法,临床上可以进一步细化。今以浮刺“针动”中的“直接浮”为例,对浮刺之浮的操作方法,试做如下分类。

(一) 静浮

静浮指浮刺法在完成刺与入两个步骤基础上,不再操作针灸针,而让它静置于皮肤与肌肉之间,或静卧在肌肉之上。静浮多用于皮肤肌肉间歇很窄的地方如额头。

不过,静浮只是相对而言的。随着针具粗细的不同以及动气针法的结合与否,静浮与动浮之间也可相互转化。如人体某些部位如额头用浮刺针只宜静浮。但改用粗径普通毫针后,也可实施动浮手法。而动浮针灸针在留置时,即处于静浮状态。

(二) 悬浮

悬浮指在完成浮刺之刺与入两个步骤基础上,持针在皮肤与肌肉之间左右摆动,有如针灸针悬在皮肤与肌肉之间的浅筋膜区域中浮动。谓之悬浮。

(三) 漂浮

漂浮指在完成浮刺之刺与入两个步骤基础上,持针在皮下并紧贴着皮肤左右摆动,有如漂在皮肤与肌肉之间的浅筋膜区域上浮动。谓之漂浮。

(四) 凸浮

凸浮指在完成浮刺之刺与入两个步骤基础上,持针在皮下并紧贴着皮肤的浅筋膜层左右摆动,并让针灸针整体在皮肤外凸显出来的浮动。谓之凸浮。

(五) 傍浮

傍浮指在完成浮刺之刺与入两个步骤基础上,持针横卧在肌层上或紧贴着深筋膜层(或骨膜外),然后持针傍着肌层或深筋膜左右摆动。谓之傍浮。

(六) 跷浮

跷浮指在完成浮刺之刺与入两个步骤基础上,持针在皮肤与肌肉之间上下浮动,针灸针往下可触及深筋膜或肌肉表层,往上穿越浅筋膜抵达皮肤并凸显出来。操作时,可用押手置于针柄之下,形成一个支点,针尖和针柄头就像跷跷板的两头一样,再通过刺手的上下拨动而实现浮动。谓之跷浮。

(七) 滚浮

滚浮指在完成浮刺之刺与入两个步骤基础上,不必再持针,只用手指在针柄上来回搓动,让针体在浅筋膜中,或紧贴深筋膜,或紧邻肌肉层跟着滚动起来。谓之滚浮。

(八) 筋浮

筋浮可能是一种新的特殊的浮刺方法。指在完成浮刺之刺以后,持针在皮下探入韧带或肌腱之下(筋之下),进而在筋下运针,或适当将筋撬浮起来。谓之筋浮。

上述八种操作方法,除了静浮之外,其它七种都属于动浮。针灸针可通过凸浮、漂浮、悬浮、傍浮四种操作方式,从外至里,在皮下与肌肉之间的四个层面上进行运针而达到相当全面的浮刺效应。再通过跷浮操作,穿越上述四个层面,实现沟通皮下层内外的浮刺效应;而通过滚浮,则可能在多层面上实现浮刺效应;筋浮是一种新的特殊的浮法,务必谨慎操作,不可轻率用之。

浮刺的八种浮法,临床上可用一法单“浮之”,也可用数法相伍多“浮之”,还可依序循环“浮之”,总以实现浮刺最大效应为目的。

七、浮刺疗法临床验案举隅

(一) 左膝外侧撞伤疼痛难忍案:

李先生,华人厨师,因左膝外侧撞伤后疼痛剧烈一天于2016年9月15日来诊。患者一天前在厨房工作时,左膝外侧不慎撞上不锈钢工作台锐角而致疼痛不已,难以坚持工作,步行时疼痛更甚,夜难安眠。舌淡红,苔薄白,脉沉弦。检查:患者左膝外侧下高骨处压痛明显,稍肿,诊为局部筋伤。因局部难以下针而试用浮刺疗法。取0.52mmX32mm浮刺针一枚,在左侧阳陵泉处进针,针尖朝向痛点,行皮下浮刺法,并采青龙摆尾手法约100次,留针40分钟。浮刺后,疼痛大减,正常步行离开。预约次日再行浮刺一次,但病友爽约未至,令我对浮刺疗效生疑。谁料几天后,该病友陪伴另一病友来诊时欣快告知:他的膝下疼痛案,仅用一次浮刺治疗,剧痛尽失,行走自如,堪称神奇。

(二) 双手腕管综合征疼痛麻木案:帕替克先生,比利时人,因双手麻痹疼痛,夜睡痛醒两个月于2017年5月8日来诊。患者诉长期双手工作较多,以致双手掌心麻痹,屈伸不利,令人不适。近两月症状逐渐加重,双手及手指麻木麻痹,甚至疼痛,夜间常常痛醒,抖动双手片刻,症状可稍减。现因双手麻痹疼痛严重影响生活和工作,甚至双前臂也时麻痹。检查:双手屈腕试验阳性,压脉带试验阳性,双腕横纹处稍肿胀,按之少痛,舌淡红,苔薄黄,脉弦紧。诊为筋伤疼痛麻痹(双手腕管综合征)。采用浮刺疗法为主,取0.52mmX36mm浮刺针灸针,分别在双侧间使、郄门穴进针,针尖对着远端行浮刺手法,并令患者持续活动手指,继而活动上肢,甚至走动甩手上举,下蹲起立等动作。留针50分钟。隔日一次行浮刺治疗。间或配合局部火罐、按摩,少量服用活血舒筋中成药。一次症减,五次症消。继续巩固三次而告愈。随访一个月未再出现双手麻痹疼痛。

(三) 左侧髌外侧疼痛跛行案:彼得罗维奇先生,波黑人,因左髌外侧疼痛跛行三天于2017年3月20日来诊。三天前突起左髌外侧疼痛,行走时更重,夜

睡不能左侧卧。检查：左髌外侧触及有条索约 30 毫米宽 50 毫米长，压痛明显。舌淡红边有瘀点，苔薄白。诊为左髌外侧筋伤。先以毫针按常规进行针灸术，取腰阳关、腰部夹脊穴、秩边、环跳、委中、风市等。留针 30 分钟，并行拔罐走罐术。治疗后，病友反映病情没有明显缓解，局部仍然疼痛，行走仍然吃力。遂改行浮刺疗法。取 0.52mm X 42mm 浮刺针一枚在秩边穴进针，并在皮下透向环跳穴；另取两枚浮刺针在髌外侧条索上端进针，紧贴着条索并横卧在条索之上，也即在皮下近肌肉处往远端透刺。三针均使用浮刺法，行摇摆捻转或曰青龙摆尾手法，并让病友缓慢持续地做小腿屈伸运动等。约 20 分钟后，病人感觉疼痛逐渐减轻。起针后再做下蹲起立扭腰动作约 10 分钟，疼痛完全消失，触诊条索也变小变软。随访两周末再复发。

小结

临床上实施浮刺疗法，应当在明确病痛本点及标点，确定浮刺靶点及刺点的基础上进行。其主要步骤：“刺、入、浮、留”，是浮刺临床上环环相扣，缺一不可的连贯操作程序，也是浮刺疗法实现速效高效的必要技巧，更是浮刺效应经得起重复的关键所在。

临床上浮刺用针量、浮刺操作的形式多寡、针动与人动的浮刺量、针动与人动是否结合运用等，都需根据病情轻重、病证新旧、病人承受能力、本次浮刺预期目标等来决定。一般宜采用辨证论治，科学施浮的方法，宜以病人舒适不难受，病痛明显减轻为度，不必刻意追求一次治疗而病痛尽消，以免造成病人身心疲劳，疗效反而不彰。

总之，浮刺疗法，“法于往古，验于来今”，临床有规可循，操作连贯灵巧，且适应范围广泛，疗效可征可验，值得传承发展，创新运用。

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(continuing from page 12)

Finally, here is some scientific experimental evidence of round-sharp needle therapy.

Mr Dinghou Lu did a lot of scientific experiments, the experimental evidence and electron microscope pictures showed that when the needle inserts the pathological points, the disorder muscle cells were rearranged, the spasm of the muscles and ligaments were immediately resolved, the structure and function of the muscles were promoted and even to return to normal, so round-sharp needle has a stable and lasting effect rather than temporary anesthetic effect.

Some medical experts believe that acupuncture is just a pseudoscience, a placebo. The experiment research of LU demonstrates that Round-Sharp needle therapy has a foundation of modern science. The results show how the disordered cells of the injured muscle to rearrange before and after acupuncture, which is clearly seen by the naked eye under the microscope. This conforms the effect to the standard of evidence-based medicine.

Strategy of pain treatment summarized from Su Wen ▪ Ju Tong Lun (Yellow Emperor's Canon of Internal Medicine Chapter 39) (Summary)

Author: Zhihua Jiao.

As the most common chief complaint for which patients come to see an acupuncturist, pain is a symptom that occurs in many diseases. This makes the studies on pain problem very meaningful.

One of the earliest ancient literatures of traditional Chinese medicine, Yellow Emperors Canon of Internal Medicine (Suwen), contains some profound understandings of pain in its Chapter 39 titled as Ju Tong Lun (Discussion on Pain).

This chapter 39 summarized the causes, pathogenesis, features, clinical manifestations of pain syndrome as well as discussing the pain transmission and prognosis in details. It gives historic influence to TCM doctors of later generations in the way to recognize and treat pain.

My understanding explored in this article is based on repeated reading and practice and using the experiences of other doctors for reference, with two points to share as detailed below:

The chapter takes cold as an example to illustrate how pain happens, how it affects the circulation of Qi and blood to cause pain. However, by mentioning heat in small intestine as a reminder, the chapter tells us although cold is important, it is not always the reason.

One of the most treasure guidelines we can learn from this chapter is that it promotes the thoughts of “when there is stagnation, there is pain; when there is lack of nourishment, there is pain”, and successfully made it the guideline for recognising and treating pain syndrome. Under the guidance of it, treating principles become clear: including warming up cold, removing stagnation and nourishing the deficiency.

Why is cold the key factor of pain syndrome? We know that cold trends to contract and trends to coagulate as two characters. When cold affects meridians from exterior, it causes vessel contraction thus decreases Qi and blood circulation. When cold invades into meridians,

it affects the regular circulation and induces stagnation, hence causes pain.

In this process we notice the famous TCM proverb: “When there is stagnation there is pain”, and “where there is lack of nourishment there is pain”.

In Yellow Emperor's Canon on Impediment Syndrome (Chapter 43 Bi Lun), Qibo says: it is to the excessive cold, and while there is the cold there would appear pain.” Cold happens as the Number 1 factor in the pathological process of pain, and trends to contract& coagulate are the core reason of pain. As mentioned in Chapter 39, Cold can affect various organs and meridians.

While emphasizing the importance of cold as the key cause of pain, Ju Tong Lun also gives other examples such as heat evil retaining in small intestine that also causes pain syndrome. This reminds us cold is not always the reason of pain, we should keep other factors in mind. Besides, opinions should be considered that retaining cold can transform to heat while causing pain..

Pathology of cold pain is explained thoroughly in Chapter 39. Thus, the principles of treatment are clear as crystal. The three principles are: treating cold by warming it up, removing stagnation and dredging & nourishing.

In treating pain syndrome, we tend to use TCM herbs warm in nature and various kinds of external therapies to warm cold up. Majority of activating Qi circulation herbs and blood activating herbs are warm in nature, this may also prove that pain syndrome is mainly caused by cold.

What causes the lack of nourishment is due to stagnation, we should dredge first to pave the way for nourishing.

Based on my own clinical experience in treating pain syndrome, I present the above several thoughts after reading Ju Tong Lun – Chapter 39 of Yellow Emperor's Canon of Internal Medicine.

The Efficacy of Traditional Chinese Herbal Medicine Treatment for COVID-19

Alexander Hadimoeljono
Shenzhou University of TCM, the Netherlands

Abstract

COVID-19 has been one of the most deadliest pandemics in recent history and has affected every country in the world. It gives symptoms like cough, shortness of breath, fever and loss of smell and taste. Therefore it is important to find a cure for this disease. Since there is no cure available Western and Traditional Chinese Medicine (TCM) are looking for solutions to reduce the symptoms and minimize the risk of a hospital admission. From TCM point of view this disease is caused by dampness in the body.

There are many formulas which are used for treatment of COVID-19. In this thesis the focus will be on three of these formulas namely Jinhua Qinggan granules, Lianhua Qingwen capsules and Qingfei Paidu decoction. The efficacy of these formulas will be determined by searching for evidence based research.

The results show that Jinhua Qinggan has positive effect on viral clearance, relieving symptoms and boosting the immune system. Lianhua Qingwen has effect on the time of recovery, relieving symptoms and preventing change in the patient's condition to severe/critical. Qingfei Paidu has effect on the length of hospital stay and mortality.

This literature study showed that different Traditional Chinese Medicine herbal formulas have benefit in the treatment of COVID-19 patients. However more and extensive research is needed to gather stronger evidence.

Key Words: COVID-19, SARS-Cov-2, TCM, herbal medicine, Jinhua Qinggan, Lian Hua Qingwen, Qingfei Paidu

COVID-19 is caused by the coronavirus SARS-CoV-2 and appeared firstly on January 2020 in Wuhan. The virus can be transferred from human to human via small droplets by coughing and sneezing. If another person inhales them, they also become infected. Hand contact (touching nose/face and then shaking hands) can spread droplets too.

1. TCM Syndrome Differentiation for COVID-19

In Traditional Chinese Medicine COVID-19 can be divided into different disease stages namely mild, moderate, severe and critical. The main syndrome patterns of each stage are as follows: [1]

- Mild → cold-damp obstructing the Lung and damp-heat accumulation in the Lung
- Moderate → damp-toxin retention in the Lung and cold-damp blocking the Lung
- Severe → pestilent toxin blocking the Lung and dual blazing of both Qi and Yin
- Critical → internal blockage and external collapse

When patients are in the recovery phase of COVID-19 there is still Qi and Yin deficiency of the Lung and Spleen present.

In TCM there are different pathogenic factors which can invade the body and these are Wind, Cold,

Summer-Heat, Dampness, Dryness and Fire. As described above for COVID-19 a combination of cold, dampness and heat are present during the different disease stages.

- Cold is a Yin pathogenic factor and can be interior or exterior. It tends to injure the Yang. Cold can congeal blood which causes blood stasis and will result in pain. It can furthermore cause contraction of tissues like muscles, sinews and blood vessels which also results in pain.
- Dampness is a Yin pathogenic factor and the characteristics are heavy, sticky and slows things down. The heavy nature will cause symptoms like tiredness, heaviness of limbs, poor appetite or fullness of chest. Stickiness can be seen in sticky tongue coating or sticky taste. Dampness can invade the body from the exterior, but can also form in the interior. When the Spleen is deficient the function of transforming and transporting of body fluids fails and the fluids will be trapped inside the body. This causes accumulation of fluids which will form dampness.
- Heat is a Yang pathogenic factor. The causes of internal heat can be excessive consumption of hot-energy foods (like red meat, alcohol or spices) and emotional stress (causes qi stagnation and could form heat). It causes among other things thirst,

feeling of heat, red face and tongue, dryness and rapid pulse.

The treatment principles of the different stages are:

- Mild → dispersing Lung, removing pathogenic factors and resolve turbidity with aroma
- Moderate → eliminating heat and dampness, detoxification and invigorate Spleen
- Severe → tonifying Qi and Yin, ventilating Lung Qi, co-treatment of Lung and Intestines
- Critical → tonifying Qi and preventing exhaustion, cool blood and nourish Yin

For each stage of the disease there are many different herbal treatment solutions available as can be seen in underlying figure 1.

The ingredients of this formula are: [3]

- Jinyinhua (Flos Lonicerae)
 - Properties: Sweet and cold
 - Meridians: Large intestine, Lung and Stomach
 - Function: Clears heat, disperses Wind-Heat
- Mahuang (Herba Ephedra Sinica)
 - Properties: Acrid, bitter and warm
 - Meridians: Lung and Bladder
 - Function: Release exterior, induces sweating, stops wheezing/coughing
- Shigao (Gypsum Fibrosum)
 - Properties: Sweet, acrid and very cold
 - Meridians: Lung and Stomach

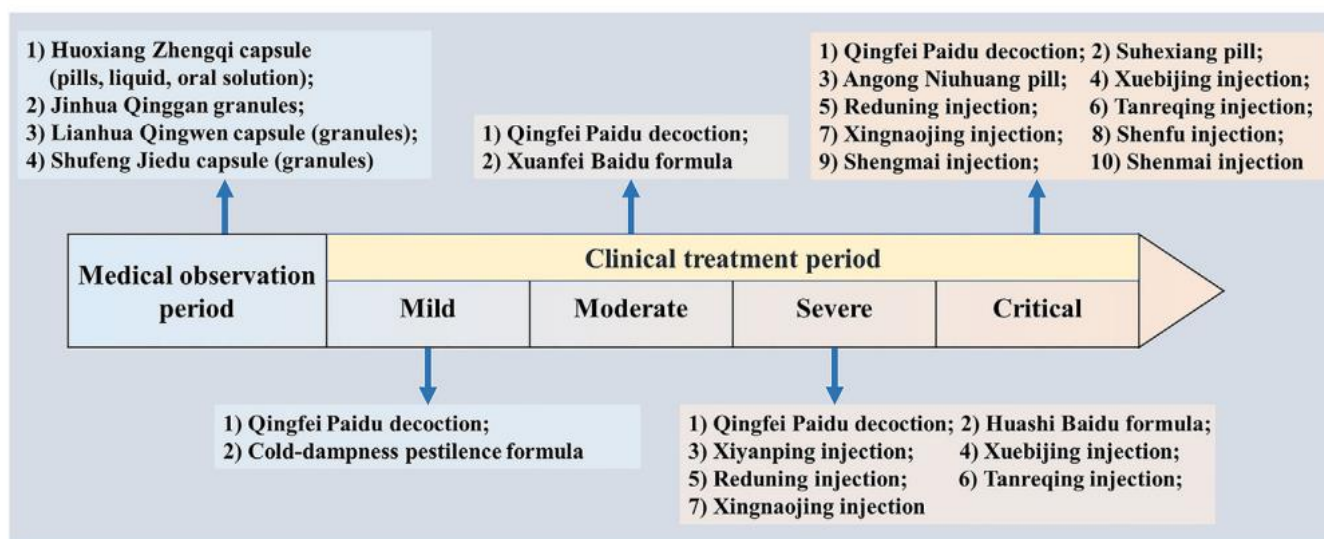


Figure 1: TCM herbal treatment for each stage of COVID [2]

2. Three Main Herbal Formulae for Treating COVID-19

Since there are too many products available this thesis will focus only on the efficacy of three different formulas: Jinhua Qinggan granules, Lianhua Qingwen capsules and Qingfei Paidu decoction.

1). Jinhua Qinggan granules 金花清感颗粒

This formula was originally developed during the H1N1 influenza pandemic in 2009. It is used to ventilate Lung Qi, clear heat and remove toxicity. The recommended dosage is to add boiled water to the granules and take it three times a day. Some adverse effects which have been reported are nausea, vomiting, diarrhea, heartburn and poor appetite.

Research has shown that Jinhua Qinggan has antiviral, anti-inflammatory and immune regulatory activity. [3, 4]

- Function: Clears heat from Lungs
- Xingren (Semen Armeniacae Amarum)
 - Properties: Bitter and slightly warm
 - Meridians: Lung and Large intestine
 - Function: Stops coughing, calms wheezing
- Huangqin (Radix Scutellariae Baicalensis)
 - Properties: Bitter and cold
 - Meridians: Lung, Stomach, Gallbladder and Large intestine
 - Function: Clears Lung Heat, drains Fire
- Lianqiao (Forsythiae Fructus)
 - Properties: Bitter, slightly acrid and slightly cold
 - Meridians: Heart, Lung and Gallbladder
 - Function: Clears heat, relieves toxicity
- Zhebeimu (Bulbus Fritillariae Thunbergii)
 - Properties: Bitter and cold
 - Meridians: Heart and Lung
 - Function: Clears heat, transforms phlegm, stops coughing
- Zhimu (Rhizoma Anemarrhenae)

- Properties: Bitter, sweet and cold
- Meridians: Lung, Stomach and Kidney
- Function: Clears heat from Lungs
- Niubangzi (Fructus Arctii)
 - Properties: Acrid, bitter and cold
 - Meridians: Lung and Stomach
 - Function: Disperses Wind-heat, benefits throat
- Qinghao (Herba Artemisiae Annuae)
 - Properties: Bitter and cold
 - Meridians: Kidney, Liver and Gallbladder
 - Function: Clears Damp-heat
- Bohe (Herba Menthae Haplocalycis)
 - Properties: Acrid, aromatic and cool
 - Meridians: Lung and Liver
 - Function: Disperses Wind-Heat, cools, benefit the throat
- Gancao (Radix Glycyrrhizae)
 - Properties: Sweet and neutral
 - Meridians: all channels
 - Function: Harmonizes formula, clear heat, resolves phlegm, stops cough

2). Lianhua Qingwen capsules 连花清瘟胶囊

This formula was developed in 2003 as treatment for SARS and has been used for influenza and respiratory diseases. At the moment it is **mainly used for the early stage of COVID-19 infection. It is used for ventilating the Lung, clearing away pestilential toxins and clearing heat. This formula is available in capsules and granules and the recommended dosage is 3 times a day 4 capsules or 1 bag of granules.**

Research has shown that Lianhua Qingwen has antiviral, anti-inflammatory, antibacterial, antipyretic and immune regulatory activity. [3,4,5]

Reported adverse effects are nausea, vomiting, diarrhea and gastrointestinal discomfort. It usually occurred 3 hours after administration and mostly affected people who took it on an empty stomach.

The ingredients of this formula are: [3]

- Lianqiao (Forsythiae Fructus)
 - Properties: Bitter, slightly acrid and slightly cold
 - Meridians: Heart, Lung and Gallbladder
 - Function: Clears heat, relieves toxicity
- Jinyinhua (Lonicerae Japonicae Flos)
 - Properties: Sweet and cold
 - Meridians: Large intestine, Lung and Stomach
 - Function: Clears heat, disperses Wind-Heat
- Mahuang (Ephedrae Herba)

- Properties: Acrid, bitter and warm
- Meridians: Lung and Bladder
- Function: Release exterior, induces sweating, stops wheezing/coughing
- Xingren (Armeniacae Semen Amarum)
 - Properties: Bitter and slightly warm
 - Meridians: Lung and Large intestine
 - Function: Stops coughing, calms wheezing
- Shigao (Gypsum Fibrosum)
 - Properties: Sweet, acrid and very cold
 - Meridians: Lung and Stomach
 - Function: Clears heat from Lungs
- Banlangen (Isatidis Radix)
 - Properties: Bitter and cold
 - Meridians: Heart, Lung and Stomach
 - Function: Drains heat, benefits throat
- Mianmaguanzhong (Dryopteridis Crassirhizomatis Rhizome)
 - Properties: Bitter and Cold
 - Meridians: Liver and Stomach
 - Function: Clears heat, relieves fire toxicity
- Yuxingcao (Houttuyniae Herba)
 - Properties: Acrid and Cool
 - Meridians: Lung and Large intestine
 - Function: Clears heat, relieves toxicity
- Huoxiang (Pogostemonis Herba)
 - Properties: Acrid, slightly warm and aromatic
 - Meridians: Lung, Spleen and Stomach
 - Function: Transforms dampness, releases exterior
- Dahuang (Rhei Radix Et Rhizome)
 - Properties: Bitter and cold
 - Meridians: Heart, Large intestine, Liver and Stomach
 - Function: Clears heat, transforms dampness, eliminates phlegm
- Hongjingian (Rhodiola Crenulatae Radix Et Rhizome)
 - Properties: Sweet, bitter, astringent and cold
 - Meridians: Heart, Kidney, Liver, Spleen and Lung
 - Function: Clears Lung heat, nourishes Lung Yin, relieves cough
- Bohe (Herba Menthae Haplocalycis)
 - Properties: Acrid, aromatic and cool
 - Meridians: Lung and Liver
 - Function: Disperses Wind-Heat, cools, benefit the throat
- Gancao (Glycyrrhizae Radix Et Rhizoma)
 - Properties: Sweet and neutral
 - Meridians: all channels
 - Function: Harmonizes formula, clear heat, resolves phlegm, stops cough

3). Qingfei Paidu decoction 清肺排毒汤

This formula is derived from a combination of classic formulas including Moxing Shigan decoction, Shigan Mahuang decoction, Xiao Chaihu decoction and Wuling powder. Qingfei Paidu decoction is used to release the exterior, clear heat and phlegm and promote water removal. It has anti-inflammatory, antiviral and immune regulatory effect. The main organ this formula targets is the Lung. [4,5]

The ingredients of this formula are: [4]

- Mahuang (Ephedrae Herba)
 - Properties: Acrid, bitter and warm
 - Meridians: Lung and Bladder
 - Function: Release exterior, induces sweating, stops wheezing/coughing
- Zhigancao (Glycyrrhizae Radix Et Rhizoma Praeparata Cum Melle)
 - Properties: Sweet and warm
 - Meridians: all channels
 - Function: Harmonizes formula, clear heat, resolves phlegm, stops cough
- Xingren (Armeniacae Semen)
 - Properties: Bitter and slightly warm
 - Meridians: Lung and Large intestine
 - Function: Disperses Lung Qi, stops wheezing/coughing, resolves phlegm
- Shigao (Gypsum Fibrosum)
 - Properties: Sweet, acrid and very cold
 - Meridians: Lung and Stomach
 - Function: Clears heat from Lungs
- Guizhi (Cinnamomi Ramulus)
 - Properties: Acrid, sweet and warm
 - Meridians: Heart, Lung, Bladder
 - Function: Release exterior
- Zexie (Alismatis Rhizoma)
 - Properties: Sweet, bland and cold
 - Meridians: Kidney and Bladder
 - Function: Promotes urination, resolves dampness
- Zhuling (Polyporus)
 - Properties: Sweet, bland and slightly cool
 - Meridians: Spleen, Kidney and Bladder
 - Function: Promotes urination, leeches out dampness, dispels heat
- Baizhu (Atractylodis Macrocephalae Rhizoma)
 - Properties: Bitter, sweet and warm
 - Meridians: Spleen and Stomach
 - Function: Strengthen Spleen, resolves dampness
- Fuling (Poria)
 - Properties: Sweet, bland and neutral
 - Meridians: Heart, Spleen, Kidney and Lung
- Chaihu (Bupleuri Radix)
 - Function: Promotes urination, leeches out dampness
 - Properties: Bitter, acrid and cool
 - Meridians: Gallbladder, Liver and Pericardium
 - Function: Reduces fever, spreads Liver Qi and relieves stagnation
- Huangqin (Scutellariae Radix)
 - Properties: Bitter and cold
 - Meridians: Lung, Stomach, Gallbladder and Large intestine
 - Function: Clears Lung Heat, drains Fire
- Zhi Banxia (Pinellinae Rhizoma Praeparatum)
 - Properties: Acrid, warm and toxic
 - Meridians: Lung, Spleen and Stomach
 - Function: Dries dampness, transforms phlegm
- Shengjiang (Zingiberis Rhizoma recens)
 - Properties: Acrid and slightly warm
 - Meridians: Lung, Spleen and Stomach
 - Function: Release the exterior, disperses cold, stops cough
- Ziwan (Asteris Radix)
 - Properties: Acrid, bitter and slightly warm
 - Meridians: Lung
 - Function: Relieves cough, expels phlegm
- Kuandonghua (Farfarae Flos)
 - Properties: Acrid and warm
 - Meridians: Lung
 - Function: Moistens the Lung, stops cough, transforms phlegm
- Shegan (Belamcandae Rhizoma)
 - Properties: Bitter and cold
 - Meridians: Lung
 - Function: Transforms phlegm, clear the Lungs, eliminates wheezing
- Xixin (Asari Radix et Rhizoma)
 - Properties: Acrid and warm
 - Meridians: Lung, Heart and Kidney
 - Function: Warms the Lungs, transforms phlegm
- Shanyao (Dioscoreae Rhizoma)
 - Properties: Sweet and neutral
 - Meridians: Kidney, Lung and Spleen
 - Function: Tonifies Lung Qi, nourish Lung Yin
- Zhishi (Aurantii Fructus immaturus)
 - Properties: Bitter, acrid and slightly cool
 - Meridians: Large intestine, Spleen and Stomach
 - Function: Transforms phlegm

- Chenpi (Citri reticulatae Pericarpium)
 - o Properties: Acrid, bitter, aromatic and warm
 - o Meridians: Lung, Spleen and Stomach
 - o Function: Dries dampness, transforms phlegm
- Huoxiang (Pogostemonis Herba)
 - o Properties: Acrid, slightly warm and aromatic
 - o Meridians: Lung, Spleen and Stomach
 - o Function: Transforms dampness, releases exterior

4). Other formulas and products

There are many other herbal products available to be used for treatment of COVID-19 like for example: [6]

- Huoxiang Zhengqi capsules → used for releasing exterior, resolving dampness, regulating Qi and harmonizing the Stomach
- Shufeng Jiedu capsules → used for dispelling wind, removing toxicity, clearing heat and relieving sore throat.
- Xiyanping injection → used for clearing heat, removing toxicity and relieving cough and dysentery.
- Tanreqing injection → used for clearing heat, removing toxicity and resolving phlegm.
- Xuebijing injection → used for expelling blood stasis and detoxification
- Xingnaojing injection → used for clearing heat, removing toxicity, activating blood circulation, cooling blood, inducing resuscitation and restoring consciousness.
- Reduning injection → used for clearing heat, removing toxicity and dispelling wind
- Shengmai injection → used for nourishing Yin, benefiting Qi, restoring pulses and rectifying collapses.
- Shenfu injection → used for restoring Yang, replenishing Qi and rescuing patient from collapse
- Shenmai injection → used for nourishing Yin and invigorating Qi for rescuing collapse

3. Efficacy of Three Main Formulae

For each herbal formula research has been done to determine their efficacy in treatment of COVID-19 patients.

Jinhua Qinggan granules

Liu et al looked at the effect of Jinhua Qinggan in COVID-19 patients. They divided 80 patients between a control group and a herbal treatment group. The results showed that the viral clearance (indicated by

two consecutive negative RNA tests) within 7 days was 50% in the treatment group as compared to 28% in the control group. They also found a significant increase in leukocytes and lymphocytes counts in the treatment group, which may indicate that the immune system is being stimulated. [7]

An et al conducted a randomized controlled trial with 123 COVID-19 patients. They divided them into two groups, namely Jinhua Qinggan or Western medicine group (antiviral drugs). The results showed that both groups could relieve the clinical symptoms like fever, fatigue and cough. They found no difference in disease aggravation after 14 days of treatment between both groups. Jinhua Qinggan has showed potential in relieving symptoms of COVID-19 patients, but there was not a better efficacy found compared to Western medicine. [8]

Kageyama et al did an open label single arm study to determine the effect of Jinhua Qinggan on hematological and cytokines blood levels. The study included 18 persons and blood samples were taken before and 1 hour after administration of Jinhua Qinggan. The results of the blood samples showed that after taking Jinhua Qinggan IL-6 was decreased and IFN- γ increased. IL-6 can cause excessive production of pro-inflammatory cytokines and the IL-6 level is elevated in COVID-19 patients. Therefore, a decrease of IL-6 might be useful to prevent COVID-19 from getting severe. IFN- γ is a central mediator for antiviral immunity and can interfere directly with viral replication. Thus an increase of IFN- γ could slow down the viral replication of COVID-19. [9]

Lianhua Qingwen capsules

Xiao et al studied the effect of Huoxiang Zhengqi pills and Lianhua Qingwen granules. They compared three groups: Huoxiang+ Lianhua, only Lianhua and Western medicine. In total 283 patients were included and divided evenly over the three group. There was no significant difference found between the groups in the improvement of clinical symptoms. However the combination of Huoxiang and Lianhua had the highest improvement of clinical symptoms like fatigue, nausea, chest tightness and shortness of breath. [10]

Zhuang et al conducted a meta-analysis of Lianhua Qingwen treatment in COVID-19 patients. They included 3 trials combining of 245 patients in their study. The patients were given Lianhua Qingwen or Western antiviral and antibacterial medicine. The primary outcome was the rate of clinical change to a severe/critical condition. Secondary outcome was the fever time and disappearance rate of symptoms. They found that the patients in the Lianhua Qingwen group were less likely to change to severe/critical condition. Furthermore there was a significant difference in fever

time between both groups in favor of Lianhua Qingwen. The disappearance rate of symptoms like fever, fatigue and cough was also significantly increased in this group. [11]

Wang et al also conducted a meta-analysis, but with the combination of Lianhua Qingwen and Western medicine treatment of COVID-19 patients. They included 6 trials with in total 856 patients. They looked at the difference in time to recovery of fever and the rate of recovery from fever, cough, shortness of breath and fatigue. The research showed that the time to recovery from fever was significantly shorter in the combination treatment group. Also the recovery from fever, cough, shortness of breath and fatigue was significantly better when patients were treated with the combination Lianhua Qingwen and Western medicine as compared to only Western medicine. [12]

Hu et al conducted a randomized controlled trial with 284 COVID-19 patients. The patients were divided between Lianhua Qingwen treatment or Western medicine treatment. The primary endpoint was the rate of symptom recovery. The results showed that after 14 days of treatment the Lianhua Qingwen group had a significantly higher rate of recovery than the control group. [13]

Gong et al conducted a study with 1976 persons who had been in close contact with COVID-19 patients. The persons were divided between the Lianhua Qingwen or control group. They determined the use of the capsule for prevention of COVID-19. After treatment for 14 days the treatment group had less COVID-19 positive test results than the control group (3 vs 10). Therefore, this result might indicate Lianhua Qingwen could be used for prevention treatment. [14]

Qingfei Paidu decoction

Wang et al researched the efficacy of Qingfei Paidu Tang by conducting a meta-analysis. They included 16 studies with a total of 11237 patients and divided them in two groups, namely Qingfei Paidu + Western medicine or only Western medicine. Different outcomes were determined during this research. The length of hospital stay was significantly lower in the combination treatment group. Furthermore, the results showed an improvement in symptom scores for symptoms like cough, fatigue, sore throat and shortness of breath. Also a significantly shorter duration of symptom recovery was found. [15]

Liu et al conducted a retrospective observational study where 446 COVID-19 patients were divided between Qingfai Paidu and non Qingfai Paidu groups. The primary outcome of the study were deaths. The results showed that patients with Qingfai Paidu treatment had a significantly lower risk of death. In the Qingfai Paidu group 7 patients died compared to 29 patients in the other group. [16]

Zhang et al looked at the use of Qingfei Paidu Tang and mortality in hospital COVID-19 patients. In total 8939 patients of 15 different hospitals were included in this study. One group did get Qingfei Paidu Tang treatment and the other one not. The outcome measure of effectiveness was in-hospital mortality. The results showed that the Qingfai Paidu Tang group had a mortality of 1,2% compared to a mortality of 4,8% in the other group. This indicates that treatment with Qingfai Paidu Tang could lower the risk of mortality due to COVID-19. [17]

4. Discussion

After searching in different scientific databases multiple studies have been found regarding Traditional Chinese Medicine herbal treatment and COVID-19. This thesis focused on three frequently used formulas for COVID-19 patients. The results of the studies are indicating that herbal formulas have effect in the treatment of COVID-19. However there are a few points of attention concerning the found studies:

- All of the studies were conducted in China so the results only display the efficacy of herbal treatment for the Chinese population. Therefore the results cannot be extrapolated to other populations since it might not reflect the global situation. Since COVID-19 has reached every country in the world and its population, it is better to conduct studies with a mixed population of different ethnicities. Then the results will reflect a global situation.
- The evidence strength of a study is determined by the study design. Meta-analysis has the strongest evidence and animal and laboratory experiments the least. The studies which were found had many different study designs and therefore the results have varying strength of evidence. To gain more evidence about the efficacy of TCM herbal treatment, more randomized controlled trials and meta-analyses needs to be done.

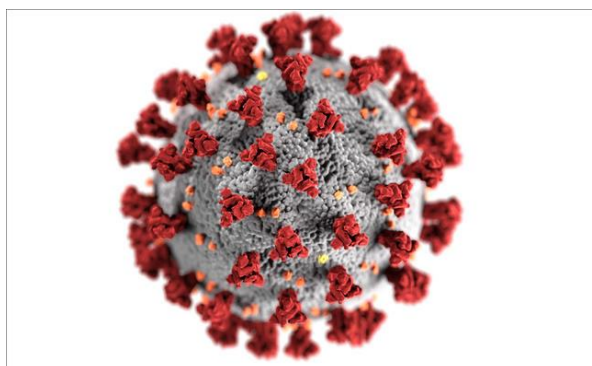
Furthermore some studies included only around 100 subjects which is a small sample size. If the sample size is too small a study could produce inconclusive results and not have strong evidence. It is therefore better to include more subjects in future studies if possible to gather stronger evidence.
- The coronavirus can still mutate and has mutated in the past. It is not known how deadly a new mutation will be and if the current herbal treatment will still be effective and give the same results. Therefore, when a new mutation arrives, new research needs to be done to determine the efficacy again.

5. Conclusion

The published studies proved that Traditional Chinese Medicine has a place in the treatment of COVID-19. The results showed different effects in COVID-19 patients after receiving herbal medicine like a reduction in recovery time of symptoms, preventing that the condition of the patient transforms to severe or critical and lowering the mortality rate in hospital administered patients. However more extensive research needs to be done to collect stronger evidence for efficacy of Traditional Chinese Medicine herbal treatment against COVID-19.

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Evaluation on the Syndrome Differentiation and Acupuncture-Related Treatment for ME

Brooke Castledine

Acupuncture programme, Lincoln College, UK

Abstract: This article looks into the TCM syndrome differentiation and acupuncture related treatment for ME/CFS, with the comparison of western medicine, in order to evaluate the weakness and the strength of both approaches. It concludes that the combination of TCM and WM is the most optimal.

Key Words: Myalgic encephalomyelitis (ME), chronic fatigue syndrome (CFS), TCM, syndrome differentiation, acupuncture, tui-na, cupping therapy

Myalgic encephalomyelitis (ME) has been recognised since 1969 by the World Health Organisation as a neurological disease, considering ‘chronic fatigue syndrome’ (CFS) as an equivalent to be used interchangeably (Maes et al. 2013). The pathology of ME is not completely comprehended in Western medicine (WM), however it is majorly agreed that ME is multi-factorial, and numerous microbial and viral infections are understood to be the trigger such as; human herpesvirus, human parvovirus and cytomegalovirus (Rasa et al. 2018). No single infectious agent has yet been established, and the role that viral infections play in triggering ME remains unclear (Underhill. 2015).

An estimated 17 million people worldwide suffer from ME, with 250,000 of those being in the UK (Action for ME, 2016), estimated to be costing the UK economy £100 million yearly (Hunter. 2011), showing the desperate need for beneficial intervention.

TCM Syndrome Differentiation:

ME or CFS is not mentioned specifically in most modern Chinese medicine (CM) books, however from very early times, CM writings have explained the cause, diagnosis and treatment for ailments similar to CFS: in which case ME is usually seen as a residual pathogenic factor (Maciocia G, 2007, pp.1133).

Within TCM, the symptoms of CFS are usually caused due to deficiencies in five organs as well as yin and yang, qi and blood; deficiencies within these can be instigated by attack of exogenous pathogens, overwork, inappropriate diet and irregular emotional states. TCM classifies symptoms such as; headaches, muscle pain, anxiety, cold knees, inflammation and joint pain as ‘fatigue’ and although these aren’t precisely the same as WM diagnostic criteria’s, there are some definite links and similarities (Chen Rui, 2008, pp.4 – pp.5)

One of the main causes of post-viral fatigue is a residual

pathogenic factor, external wind can invade the body without being dissipated completely, it can also be caused by an individual not resting whilst battling an acute wind invasion, in CFS usually this remains in the interior as dampness. This causes the individual to be left vulnerable to additional penetrations of exterior pathogenic factors due to obstruction of Lung Qi being diffused and descended, and the ascending and descending of Spleen Qi and Stomach Qi also being prevented. Turbid and clear fluids will no longer be transformed which will cause dampness / phlegm (Maciocia G, 2007, PP.1133-PP.1134).

Earlier diagnosis patterns caused by this are; Damp heat accumulating in the interior; this syndrome will be diagnosed if the patient is suffering from symptoms such as feeling hot but no fever, sweating, thirst but not wanting to drink, distension in the abdomen, vomiting and diarrhoea. The tongue will be red bodied with a yellow greasy coat and a rapid soft pulse. Dampness accumulates causing congestion and stagnation which can then produce heat (West village acupuncture, 2017). Another early stage pattern can commonly be damp / phlegm retention combined with liver Qi stagnation which can manifest such as; distension / fullness in abdomen, feeling neither hot or cold, poor appetite, cough and phlegm, diarrhoea, irregular or painful menstruation and irritability. The tongue will be pale with a white greasy coat and a soft pulse in the spleen position, but wiry in the liver position (EuYanSang, 2019)

Middle stage patterns that can be linked with CFS are; Qi and blood deficiency, this can be diagnosed when the individual is suffering from; fatigue, little energy, diarrhoea, reduced appetite, weight loss, dizziness and irregular menstruation in women. Tongue and pulse diagnosis should show a pale tongue with a weak pulse. Yin deficiencies can also be seen in CFS with symptoms of; hot flushes, night sweats, weight loss, dry mouth and thirst with a red tongue and little coating, and weak rapid pulse (Ward J, 2020).

CFS can also accompany a Yang deficiency which will manifest; coldness, cold hands and feet, weight loss, low energy, weakness, lack of sweats, diarrhoea and frequent urination. The tongue body is likely to be pale / purple with a deep weak pulse.

As the stages develop even further, patterns such as Qi and Yin dual deficiency and Yin and Yang dual deficiency may be seen. Qi and Yin dual deficiency will provide symptoms such as; extreme weakness, hot flushes, night sweats, five palm heat, poor appetite and thirst. The tongue will be red with teeth marks whilst the pulse will be weak, thin and rapid. This is different to Yin and Yang dual deficiency where it will manifest as; intense weakness, neither hot or cold, feeling hot in the afternoon but cold in the morning or at night, night sweats, major weight loss, no appetite and the pulse will feel very thin and weak.

To evaluate the TCM technique of diagnosing patients; it is clear that a much wider variety of symptoms and manifestations are taken into account than the WM technique. For example, mental health plays a much bigger role in CFS within TCM than it does in WM, and this will be questioned extensively during the consultation. Palpitation, tongue diagnosis, pulse diagnosis, complexion, motion and general aura are all included. Although it can be very advantageous to have such a wide range of manifestations to form a diagnosis with, it is much more subjective and qualitative than that of WM CFS diagnosis, which can often be seen as a disadvantage, partly due to it being much harder to standardise. For example, the tongue in TCM is a very important diagnostic technique which can differentiate between patterns and give an insight into the internal systems. Tongue diagnosis takes a great deal of experience and expertise, and yet different practitioners may still diagnose a tongue differently; external influences can also affect tongue diagnosis such as light conditions and therefore lead to a slightly wrong diagnosis. The objectiveness of the diagnostic methods make it much harder to standardise and replicate.

Acupuncture related Treatment:

Moving onto the treatment and management of CFS within TCM; one of the main treatment types is acupuncture. Firstly, for precise treatment the correct diagnosis must be made for each patient as all treatment sessions are individualised and holistic.

Common patterns that ME sufferers are diagnosed with are; Qi deficiency mingled with damp. The aim of this treatment would be to tonify spleen Qi and remove dampness. This can be done with a selection of points such as; ST-36, SP-3, SP-6, SP-9, REN-12 and BL-20.

Another commonly found pattern within CFS is Qi and Yin dual deficiency, the presence of this syndrome

would cause the treatment to consist of acu-points such as; SP-6, DU-4, REN-4, KI 2, 3, 6, 7 and BL-18, 20, 23, the treatment principle would be to tonify yang and nourish yin.

Within the past decade specifically there has been a larger number of RCT's showing positive results for acupuncture helping with CFS, for example a trial from 2015 concluded that body acupuncture for four weeks, in addition to usual care may help improve fatigue in CFS patients (Kim J, 2015).

An important aim when treating a patient with CFS, is that any new infections should be attempted to be treated, otherwise improvements within the patient may revert back to the start (Maciocia G, 2007). There is a wide range of different treatments within TCM that could be used; due to many CFS patients suffering from damp patterns, moxibustion can be advantageous. One pilot-controlled trial showed the difference between treating CFS patients with acupuncture and moxibustion- it concluded that both can improve fatigue of ME sufferers, however moxibustion is more effective than acupuncture when treating CFS in the long term (Shu Q, 2016).

Tui-na as a kind of Chinese therapeutic massage can be used to treat CFS. It provides whole stimulus of the body's complete musculoskeletal system as well as the internal organs (Cronkleton E, 2019), one study shows that the combination of tui-na and thunder fire moxibustion has a better therapeutic effect in treating CFS than ordinary acupuncture (Zeng R, 2012).

Another treatment within TCM is cupping; the treatment aims to remove stagnation and encourage flow of Qi (Guarneri M, 2014), which is important in those with CFS, recent RCTs also show positive results with cupping, one RCT concludes that cupping can improve fatigue, emotions and sleep in ME sufferers (Meng X, 2020).

Overall, TCM treatments for CFS do seem to benefit positively to the reduction of symptoms, however there are drawbacks. For example, acupuncture cannot always provide instant or quick results from treatment, especially for chronic illnesses- this can dishearten many patients as they want to see quick results due to the pain they are experiencing, which could cause them to stop going to their sessions as they see no improvement. Furthermore, those that suffer from CFS struggle to do daily routine tasks, so expecting someone with ME to turn up weekly when their illness is unpredictable, can be quite a big ask- this therefore can have negative results on the treatment as it is not consistent.

Another possible disadvantage of acupuncture is the possibility of infection due to insertion of a foreign object (Batistini F, 2010). As with any treatment, there

is a possibility of adverse effects- a multicentre survey reported a selection of effects such as; dizziness, small haemorrhage, nausea, fainting, pain at the insertion site, fatigue and sweating- it is important to decide whether adverse effects are significant enough for the patient to stop treatment (Ernst G, 2003).

Conclusion:

As with any treatment, there are pros and cons to WM and CM diagnosis and treatment. There does not seem to be once specific WM treatment that outshines the others, and therefore a combined approach of WM and TCM treatment together, would be most beneficial to the patient. It is important that a happy medium is soon found due to CFS imposing substantial economic costs on society, mainly though informal care and loss of employment (McCrone P, 2003), as well as the pain and frustration ME sufferers are dealing with. The diagnosis of CFS in WM is complicated, with many diagnostic criteria causing misdiagnosis and un-diagnosis.

However, TCM diagnosis is also complex with many different patterns that can fall under one illness, allowing many opportunities for human error; for example, within tongue and pulse diagnosis which can lead to wrong treatment. Where one approach has weaknesses, the other approach has its strengths and vice versa, therefore showing the opportunity for a combined approach. TCM lacks standardisation and therefore is more likely to struggle within RCTs, there is also more room for practitioner bias within TCM. Whereas WM lacks a holistic view, leaving out many important pieces of information. For CFS, TCM currently seems to have more effective treatments with less adverse effects. Unfortunately, due to the lack of knowledge and funding around CFS within WM, not enough is known about the disease therefore causing a lack of solid, effective treatment. Overall, a combined approach would be most beneficial to the patient, allowing both approaches to benefit the other.

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The Journal of Chinese Medicine and Acupuncture

《英国中医针灸杂志》征稿启事

《英国中医针灸杂志》为英国中医药学会主办的中英文双语学术期刊，每年4月和10月发行两期，并可在学会网上阅览。本会刊宗旨着重在于为大家提供一个平台和论坛，借此互相沟通学习，不断提高学术水平和质量，从而推动中医针灸的发扬光大。欢迎诸位会员，中医同仁及各界读者慷慨赐稿，与大家共同分享你们的临床经验，典型病例分析，行医心得，理论探讨，中医教育和发展，文献综述和研究报告。并建议大家推荐本刊给病人及其周围之人阅读，让更多英国民众看到并亲身体验到中医之奇妙果效，从而提高中医之声誉，扩大中医之影响。

来稿中文或英文均可，中英双语更受欢迎。字数中文5000字以内，英文4000字以内，并附200字以内摘要。文章必须符合以下格式：标题，作者，摘要，关键词，概要，文章内容，综述/讨论或结论，以及参考文献。每篇文章也可附带一份单独的作者简介。

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艾灸预处理改善心肌缺血再灌注损伤机制的研究进展

湖南中医药大学博士研究生 张昕

摘要：对近十年来艾灸预处理治疗心肌缺血再灌注损伤的研究进展进行了综述。从缺血预适应激发相，探讨艾灸预处理对相关心肌组织内源物的调控，为进一步研究艾灸治未病的理论进行分析，希望为缺血性心脏疾病的治疗提供新的思路。

关键词：艾灸； 艾灸预处理； 心肌缺血再灌注； 缺血预适应

近年来，随着生活水平的大幅提高，缺血性心血管疾病的患病率处于持续上升阶段。冠心病已经成了除脑卒中外，发病率第二高的疾病。至 2018 年，其死亡率已升至城市居民 120.18/10 万，农村居民死亡率 128.24/10 万。^[1]而在全球范围看，冠心病也已成了死亡率与致残率最高的疾病之一。^[2]随着溶栓疗法、经皮冠状动脉介入术（PCI）、动脉搭桥术等方法的建立及推广，明显减少了心肌由于缺血导致的细胞坏死。但在很多的临床观察和动物实验中发现，在心肌恢复血流后，又易出现心肌缺血再灌注损伤。预防心肌缺血再灌注损伤（Myocardial infarction reperfusion injury）MIRI，即心肌细胞缺血后血液再灌注可导致的进一步心肌细胞损伤及死亡，成为其重要研究方向。心肌细胞缺血再灌注时期，PH 值快速变化，细胞内钙超载，氧自由基增多，mPTP 开放，线粒体损伤，引起炎症反应、细胞自噬及凋亡反应。从而加重了细胞缺血性损伤，亦能促进可逆性缺血损伤转化为不可逆损伤。^[3]

现已有大量研究证明，中医艾灸疗法有增加血液流量，抗氧化，调控心肌酶，炎症因子等作用。能有效保护心肌。但这些研究均处于理论实验阶段，其具体机制尚未完全明确。本文就近 10 年来艾灸治疗 MIRI 机制研究进展予以综述。

1. 心肌组织病理形态及心电图影响

镜下观察心肌细胞病理变化可直观反映艾灸对 MIRI 作用。Zhang^[4]等选择艾灸大鼠双侧内关穴（PC6），4 日处理后，第五日取材。结果显示艾灸组大鼠心肌细胞形态结构显著优于其他组，与假手术组接近。且坏死灶面积明显小于其他组。谭成富^[5]等同样是选择艾灸大鼠双侧内关穴，7 日处理后取材。模型组心肌损伤较严重，而艾灸组心肌损伤轻微，肌纤维大多正常。贺香嫦^[6]等以针灸预处理新西兰大耳白兔内关穴以观察对兔心肌再灌注损伤心电图的影响。发现艾灸组与缺血预适应组均可在心梗时抑制 ST 段值抬高，从而证实艾灸预处理可降低心肌再灌注损伤程度，对心肌起保护作用。

2. 抑制心肌酶活性

心肌酶为临床诊断是否有心肌缺血的重要参考指标。心肌梗死时，血清肌酸激酶 CK 明显增高。以肌酸同工酶（CK-MB）为主，其增高程度与梗死面积大小基本一致。ET 内皮素含量与血管收缩密切相关。谢文娟^[7]等采用冠脉结扎法复制兔心肌缺血再灌注损伤模型，观察电针预处理与艾灸预处理内关穴对兔 MIRI 作用机制。以酶联免疫法检测血清 CK 与血浆 ET 含量。与模型组相比，在 24h/48h 电针组及艾灸预处理组 CK 与 ET 含量均有降低趋势；48h 电针组及艾灸组 CK 值比较无意义，但 ET 值比较有意义。结果证明电针与艾灸预处理均可通过降低血清 CK，血浆 ET 以防护心肌细胞 MIRI 损伤。葛瑜^[8]等以温和灸预处理幼鼠内关、足三里、关元三穴，结果显示与模型组相比，温和灸组 CK-MB 浓度显著降低，能起到与心肌缺血预适应类似的减轻 MIRI 的效应。李科全^[9]等在临床以艾灸预处理百会、膻中、内关、丰隆、足三里穴治疗冠心病患者 50 例，结果显示艾灸治疗组患者血清肌酸激酶（CK）水平显著低于对照组（ $p < 0.05$ ），具有保护心肌缺血再灌注损伤的作用。

3. 对钙通道的调控

细胞内钙超载是造成 MIRI 的重要原因之一，而减轻钙超载则可降低心肌细胞损伤。兰尼碱受体（ $RyR2$ ）是肌浆网上重要的钙释放通道。王一茗等^[10]以艾灸预处理大鼠内关、膻中穴，观察对大鼠心肌 $RyR2$ mRNA 表达的影响。研究发现艾灸组与缺血预适应组均可减轻再灌注损伤诱导心肌 $RyR2$ mRNA 的表达下调，从而减轻心肌缺血再灌注对心肌造成的损伤。

4. 对自由基调控

自由基生成过多是缺血再灌注损伤发生的机制之一。自由基攻击细胞膜成分中的未饱和脂肪酸，生成脂质过氧化物，引起细胞膜功能单位结构与功能障碍。致使 mPTP 开放，加重细胞钙超载，攻击核酸，造成细胞损伤。^[11]氧自由基的主要清除酶是超氧化物歧化

酶(SOD),早期抗氧化治疗可明显减轻MIRI损伤。葛瑜^[8]等采用温和灸预处理幼鼠内关、足三里、关元三穴,结果显示温和灸能明显提高SOD活性,降低心肌ATP消耗速度。NO是一种生物活性分子,参与冠脉收缩调控,维持有效的冠脉循环血流。对心肌具有保护作用。而当NO生成过多,则可造成心肌内钙超载而加重心肌损伤。NOS是NO的限速酶,其活性与NO的生成密切相关。在心肌缺血时期,NO含量显著升高,而在再灌注时显著降低,呈周期性变化。^[11]阳晶晶等^[12]从心肌缺血再灌注延迟性保护机制探索,通过针、灸兔内关预处理,发现二者均可提高兔血清中的NO,NOS及腺苷的活性及含量,从而发挥减轻心肌再灌注损伤的作用。

5.调节心肌细胞自噬与凋亡

细胞自噬是细胞自身通过溶酶体机制,负责将受损的细胞器及错误折叠的蛋白质进行降解,以实现细胞器更新及维持细胞平衡的细胞存活过程。而细胞凋亡是一种主动的细胞程序性死亡,由多种基因及蛋白酶调控。恰当的自噬水平可维持细胞稳态,促进细胞生存,但过强的细胞自噬却促进细胞凋亡及坏死。^[13]Beclin-1是自噬过程中的关键,心肌缺血再灌注时其表达显著升高,抑制这种过度表达可降低心肌细胞死亡率。^[14]抑制凋亡基因BCL-2与Beclin-1是自噬与凋亡通路的交叉点。Zhang^[4]等发现,大鼠内关艾灸预处理可降低Beclin-1表达,增强抑制凋亡基因BCL-2表达,从而调节再灌注时期心肌细胞自噬活动,保护心肌细胞。白桦^[15]等以麦粒灸大鼠内关穴,同样发现与模型组相比,Beclin-1表达显著降低。同时,研究发现决定细胞凋亡的Bax/BCL-2比值亦明显下降。表明麦粒灸内关穴可抑制再灌注期自噬过表达,调控细胞凋亡,从而减轻心肌缺血再灌注损伤。LC3蛋白是反映自噬激活与否的重要标志,LC3-II/I比值为判断自噬水平高低的主要标准。谭成富^[5]等以电针及艾灸分别预处理大鼠内关穴,发现两者均可明显降低Beclin-1及LC3II表达,降低LC3II/I比值,但电针组下降细胞凋亡指数优于艾灸组。有研究表明Fas/FasL在心肌缺血再灌注损伤中,是心肌细胞凋亡的最主要途径之一。当心肌组织受到缺血再灌注刺激FAS蛋白与FAS配体(FasL)交联后,激活凋亡蛋白酶系列产生级联反应,引起核酸内切酶活化以裂解细胞蛋白,降解DNA片段并最终导致细胞凋亡。^[16]林海波^[17]等证实艾灸内关预处理可抑制死亡受体通路Fas/FasL蛋白的表达,从而减少细胞凋亡,发挥对心肌细胞延迟相保护作用。半胱天冬氨酸(Caspase)是细胞凋亡的关键蛋白酶。其中Caspase-3为凋亡的最终执行者。在心肌缺血再灌注过程中,caspase-3被激活,引起心肌细胞凋亡,加重心肌损伤。^[18]孟君^[19]发现艾灸大鼠膻中、膻俞穴预处理可降低其

Caspase-3表达并增高BCL-2表达从而对大鼠心肌缺血再灌注损伤起抑制作用。王超等^[20]亦发现艾灸预处理大鼠内关穴可显著降低MIRI大鼠心肌细胞中的Caspase-3表达,增加心肌细胞中BCL-2含量。同时也发现艾灸预处理10天对心肌细胞保护作用优于艾灸5天。

6.调节其他内源性保护物质

缝隙连接蛋白Cx43是心脏Cx家族中最丰富的成员,对于心脏发育,参与心肌电耦联和心肌功能的协调至关重要。有研究表明,在心肌再灌注损伤时,Cx43有对心肌MIRI有保护作用,而其表达在这一过程中是降低的。^[21,22]周丹等^[23]研究发现电针、艾灸兔内关穴均可使心肌细胞Cx43表达增高,参与心肌电耦联和代谢耦联从而保护缺血再灌注的心肌细胞。热休克蛋白HSP,也称应激蛋白,是生物体在应激状态下产生的内源性保护蛋白。尤其是HSP70与心肌缺血再灌注损伤有密切联系。它不仅具有抗心律失常的作用,也有抗氧化,防止细胞损害和修复受损细胞的作用。^[24]王超等^[25]以针灸预处理兔内关穴,发现针与艾灸均可增强心肌组织HSP70表达,并减少血浆ET,血清CK含量,从而保护心肌组织。而谭成富^[26]等亦发现针、灸均可明显增强心肌组织HSP70及HSP27的表达,且其具有延迟性保护效应。

讨论

综上所述,艾灸预处理可模拟缺血预适应激发相,增加心肌组织内源性保护物质。调控自由基,心肌酶,细胞自噬与凋亡来降低MIRI损伤,从而保护心肌组织。

相比于针刺疗法,艾灸以其操作更简便,适用人群更广泛(尤其是对惧针者,儿童及体虚老人等)且安全无创,无毒副作用而更好被病人所接受。现已有大量文献及研究证明了单以针法或电针可降低心肌缺血再灌注损伤,但灸法的研究相对较少。且各项相关因子,蛋白及基因等变化相对分散。虽大部分的艾灸MIRI的研究多选用内关穴,但各实验之艾灸方法以及时间不一,导致疗效缺乏客观的统一评价标准。

现大部分针刺及艾灸对心肌缺血再灌注损伤的研究仍处在基础实验阶段,其临床效果还需进一步的临床实验来验证。尤其从艾灸本身特点出发,继续深入探讨其穴位特异性,艾灸疗效关系等方面对MIRI影响,以及将艾灸治未病思想更好与临床结合,为防治缺血性心脏病的治疗提供新的思路 and 方向。

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对《针灸学》教材“平补平泻”法的质疑和探讨

韩永刚

Chelsea Natural Health, 208 Fulham Rd, Kensington and Chelsea, London SW10 9PJ

摘要: 补泻是针刺手法中最重要的组成部分,泻除邪气,补助正气。《针灸学》单式补泻手法包括捻转补泻、提插补泻、徐疾补泻、迎随补泻、呼吸补泻、开阖补泻和平补平泻,共计 7 种;复式补泻手法包括烧山火、透天凉,共计 2 种。《针灸学》“平补平泻”概念的内涵不清,其错误在于混淆了治疗的目的和手段。古代针灸典籍中的“平补平泻”的含义有三:第一,补虚泻实,平衡阴阳;第二,“平补平泻”与“大补大泻”相对应,刺激量小;第三,“先泻后补”。“导气法”的内涵与“平补平泻”类似,实证、虚证都可以使用。

关键词: 虚实;补泻;平补平泻;导气。

Query and discussion on the method of neutral supplementation and draining in the textbook of *Acupuncture and Moxibustion*

Yonggang Han

Abstract: Supplementation and draining (as known as replenishing and reducing) is the most important aspect of acupuncture technique, which eliminates evil Qi and replenishes healthy Qi. In *Acupuncture and Moxibustion*, there are 7 acupuncture manipulation techniques for single-type replenishment and reduction, including twirling-rotating supplementation and draining, lifting-thrusting supplementation and draining, slow-quick supplementation and draining, directional supplementation and draining, respiratory supplementation and draining, open-close supplementation and draining, and neutral supplementation and draining. There are 2 kinds of double-type supplementating and draining techniques, including the mountain-burning fire method and the heaven-penetrating method. In *Acupuncture and Moxibustion*, the concept of neutral supplementation and draining method is unclear, and its mistake is to confuse the purpose and method of treatment. In the ancient classics of acupuncture and moxibustion, the neutral supplementating and draining method have three meanings: firstly, to replenish deficiencies and remove excess, and balance yin and yang; secondly, the neutral supplementating and draining method corresponds to the major supplementating and draining method with a small amount of stimulation; thirdly, draining first and then supplementation. The connotation of the leading Qi Method is similar to the neutral supplementating and draining method, which can be used for both excess and deficiency syndromes.

Key words: deficiency and excess; supplementation and draining method; neutral supplementation and draining method; leading Qi.

一、毫针补泻手法

张智龙《针法秘钥》曰:“术者持针施治,必须熟谙针灸手法,苟不识针法,犹士兵不谙枪法,焉能擒贼退敌?故针家必须熟知针法,方能疗百病而克顽疾”^[1]。用药如用兵,用针如用枪。补泻是针刺手法中最重要的组成部分,犹如士兵之枪法。泻法为攻,祛除邪气;补法为守,扶助正气。攻守结合,才能祛病延年。

笔者查阅了多个版本的《针灸学》教材,包括第

二版教材、第五版教材、十一五教材、十二五教材、十三五教材,这五个版本的教材基本一致。《针灸学》统编教材“毫针补泻手法”包括“单式补泻手法”7种和“复式补泻手法”2种。

(一) 单式补泻手法

1. 捻转补泻 (twirling supplementation and draining method) 针下得气后,拇指向前用力重,向后用力轻者为补法;拇指向后用力重,向前用力轻者为泻法。

2.提插补泻(lifting-thrusting supplementation and draining method)针下得气后,先浅后深,重插轻提,以下插用力为主者为补法;先深后浅,轻插重提,以上提用力为主者为泻法。

3.徐疾补泻(slow-quick supplementation and draining method)进针时徐徐刺入,疾速出针者为补法;进针时疾速刺入,徐徐出针者为泻法。

4.迎随补泻(directional supplementation and draining method)此处指指向补泻。进针时针尖随着经脉循行去的方向刺入为补法,针尖迎着经脉循行来的方向刺入为泻法。

5.呼吸补泻(respiratory supplementation and draining method)在患者呼气时进针,吸气时出针为补法;在患者吸气时进针,呼气时出针为泻法。

6.开阖补泻(open-closed supplementation and draining method)出针后迅速按闭针孔为补法;出针时摇大针孔而不按为泻法。

7.平补平泻(neutral supplementation and draining method)进针得气后均匀地提插、捻转,即为平补平泻。

在上述单式补泻手法中,捻转补泻和提插补泻是基本的补泻手法。

(二) 复式补泻手法

1.烧山火(heat-producing needling)将穴位的可刺深度分为浅、中、深三层(天、人、地三部)。先浅后深。每层各做紧按慢提(或用捻转补法)九数。然后退同至浅层,称为一度。如此反复操作数度,再将针按至深层留针。在操作过程中,可配合呼吸补泻中的补法,出针时按压针孔。多用于治疗顽麻冷痹、虚寒性疾病等。

2.透天凉(cool-producing needling)针刺入后直插深层,按深、中、浅的顺序,在每一层中紧提慢按(或用捻转泻法)六数,称为一度。如此反复操作数度,将针紧提至浅层留针。在操作过程中,可配合呼吸补泻中的泻法,出针时摇大针孔而不按压。多用于治疗热痹、急性肿痛等实热性疾病^[2,3,4,5,6]。

国家统编《针灸学》教材,篇幅最长的第二版407页,最短的十三五教材329页,5个版本关于针法补泻的介绍均仅仅只有1页,非常简单的文字描述。毫针补泻手法的细节明显不足,不能满足真正的临床需要。细节决定成败,针灸取得疗效的重要组成部分是补泻法,希望未来的教材能提供更详细的技术细节。

二、对《针灸学》教材“平补平泻”法的质疑和探讨

本人并不认可统编教材中所谓的“平补平泻”,本概念的内涵不清。针灸临床治疗,应补则补,应泻则泻,不能含糊不清。教材中的“平补平泻”,是以提插补泻和捻转补泻为基础,所谓“均匀地”提插、捻转就是平补平泻。这是典型的混淆概念!

由前文可见,提插补泻以重插轻提为补,轻插重提为泻,关键是上下方向的不同和力度的不同造成了补泻的区别;捻转补泻以拇指向前用力重为补法,拇指向后用力重为泻法,关键是左右方向的不同和力度的不同造成了补泻的区别。教材中的“平补平泻”,提出“均匀地”提插、捻转,也就是没有方向的不同和力度的不同,这样的针刺手法就是“平补平泻”。实际上,教材中的“平补平泻”,本质上是诊断上不清楚虚实,治疗上不明白补泻!这样的定义纯属胡乱解释中医经典,人为制造理论困惑,同时降低了临床疗效!

从针灸典籍记载来看,“平补平泻”的含义有两种,一种出自明代杨继洲《针灸大成》:“问:刺有大小。答曰:有平补平泻,谓其阴阳不平而后平也。阳下之曰补,阴上之曰泻。但得内外之气调则已。有大补大泻,惟其阴阳俱有盛衰,内针于天地部内,俱补俱泻,必使经气内外相通,上下相接,盛气乃衰,此名:调阴换阳,一名:接气通经,一名:从本引末。审按其道以予之,徐往徐来以去之,其实一义也。”本书中的“平补平泻”有两层含义。第一,“平补平泻”指针刺之前存在着阴阳的不平衡,针刺之后则恢复平衡,其所谓“阴阳不平而后平也”。第二,“平补平泻”与“大补大泻”相对应,也就是在针灸的刺激量上有区别,“平补平泻”的刺激量小,“大补大泻”的刺激量大。二者的共同点是,针刺目的都是达到经气内外的阴阳平衡。

“平补平泻”的第二种含义出自于明代陈会《神应经》:“臣瑾曰:昔宏纲先生授曰:凡人有疾,皆邪气所凑,虽病患瘦弱,不可专行补法。经:邪之所凑,其气必虚。如患赤目等疾,明见其为邪热所致,可专行泻法。其余诸疾,只宜平补平泻。须先泻后补,谓之先泻其邪,后补真气。此乃先生不传之秘诀也。”本书中的“平补平泻”是指“先泻后补”。

“平补平泻”的两种含义,无论哪一种,其最终的目的都是“平衡阴阳”。目的是“平衡”,原因就是有“不平”的存在,刘欢《好汉歌》“路见不平一声吼哇”,这个“不平”在中医就是“虚实”。因此,中医治疗无论针法、药法,诊断上必须明确疾病所在脏腑经络的虚实,治疗上就是针对性地虚补实泻,以平为期。正如经典所言,《黄帝内经·素问·至真要大论》曰:“谨察

阴阳所在而调之，以平为期，正者正治，反者反治……夫气之胜也，微者随之，甚者制之，气之复也，和者平之，暴者夺之，皆随胜气，安其屈伏，无问其数，以平为期，此其道也。”《黄帝内经·素问·三部九候论》曰：“必先度其形之肥瘦，以调其气之虚实，实则写之，虚则补之。必先去其血脉而后调之，无问其病，以平为期。”可见，“以平为期”是中医经典始终所强调的。也就是说，“平”是治疗的目的，而不是治疗的手段！疾病导致了脏腑经络的虚实，因此通过针灸和药物等治疗手段，将病理性的虚实纠正为正常生理性的平衡，这就是虚则“补”使之“平”、实则“泻”使之“平”的“以平为期”！现代统编教材的重大错误在于混淆了治疗的目的和手段！

三、导气法

与“平补平泻”的内涵类似的针刺方法是“导气法”，首见于《黄帝内经》。《灵枢·五乱》曰：“黄帝曰：补泻奈何？岐伯曰：徐入徐出，谓之导气。补泻无形，谓之同精。是非有馀不足也，乱气之相逆也。黄帝曰：允乎哉道，明乎哉论，请著之玉版，命曰治乱也。”导气法的操作特点是进针、行针、出针的速度都比较慢。针对气机逆乱，上逆于头的病症，不用补泻法，而用导气法，引上逆之气向下、向外而出，则病愈。

本法在《针灸大成》有更加详细的阐述。《针灸大成·卷九》曰：“气在于头，取之天柱、大杼。不足，取之足太阳荣、俞；通谷、束骨。先取天柱、大杼，不补不泻，以导气而已。取足太阳膀胱经中，不补不泻，深取通谷、束骨，丁心火，已脾土穴，以引导去

之。”气机逆乱，上逆于头的疾病，实证和本虚标实证，治疗用近端取穴，取头项部的天柱、大杼；虚证，治疗用远端取穴，取足部膀胱经的荣穴通谷和输穴束骨。可见，无论实证还是虚证都可以使用导气法。

《黄帝内经·灵枢·邪客》曰：“辅针导气，邪得淫佚，真气得居。”用针来导引气的运行，对于实证能外泄其邪气，对于虚证能引正气归位。

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作者简介：韩永刚，中国中医科学院临床医学基础研究所博士研究生，师从中国工程院王永炎院士和原北京中医药大学校长高思华教授。2009 年赴英国工作至今，目前在 Chelsea Natural Health Clinic 和 Holistic Health Clinic 行医。担任世界经典中医学会专家委员会委员，世界中联药量效专业委员会常务委员，世界中医五运六气学会联合会理事，英国中国联盟学会学术理事。

Email:yonggang01@hotmail.com. 微信:
yonggang01

浅谈筋膜

黄穗云

中西医能不能合璧？人们常常用是否科学来评判一件事物的对与否。那么什么是科学呢？

我认为,科学是人们对某事物现象在一定空间,时间里研究探讨得出的综合结论。这个结论是受时间,空间的限制,更受人有限的知识所限制,甚至科学在某些时候还要为政治经济利益服务。比方说,在我

们的记忆中,从来都是被教育胆固醇是人类老年性心血管疾病的罪魁祸首,食物中要避免过高的胆固醇纳入。而最近一位来自加拿大的科学家的研究否定了胆固醇的说法¹。

无论主流医学,还是辅助医学,中医西医,都是在研究人的身体健康,健康的真理本不该有矛盾,而暂时

的矛盾,是人们能力的有限性以及其他人因素所造成的。中医学是研究人的神气形的总和;而西医的研究也有神气形体的研究,只不过西医的研究发展快速,包括的范围也很广而深,以至于医生专注于自己的研究范畴的深度,无法无精力全方位照顾,故而出现了分科研究,现代医学出现了研究神的心理学,研究气的生化学,生理学;研究形的解剖学,内科学,外科学,等等,还有分的更细,比如消化专科,呼吸专科,心血管专科,心导管专科,心脏影像科.....等等。久而久之,就自然而然地形成了西医的神气形分离的局面!造成了头痛医头,脚痛医脚的片面观。

换句话说,纵使现代医学对人类健康的认识的快速深入发展,但是每一位西医生,只能站在他自己的专科角度解释人类的健康,不能全面代表西医来评论,他们对中医提出任何质疑都是可以理解的。其实我认识的西医师们,不是他们以为反对中医,而是因为不了解而不能茫然同意中医。如果中医人也不深入了解西医的进展及发展,甚至对传统中医的精髓核心理论也一知半解,当然也就看不到中医西医合璧了。这样也是阻碍中医事业在国际上的发展。然而,中医真正的发展与中国在世界上的经济政治地位分不开的。

直到2016年接触到浮针,浮针的惊人的治疗效果,我开始好奇和思考浮针的原理,我开始寻找“WHY”和“HOW”的答案,开始了我的对筋膜的认识探讨的旅途。同年一位西人理疗师介绍我,在伦敦参加了由美国 John Barnes 开创的 Myofascial Release 手法班。我惊讶地发现,如果说 JOHN 的肌筋膜释放手法,是一种“体外筋膜释放手法”,那么浮针也好,腕踝针也罢,就是一种“体内筋膜释放疗法”,我开始琢磨者把两个手法结合起来,体内体外筋膜释放疗法共同并用,发现疗效大大提高。

后来又发现,确实还有单单使用筋膜疗法在医患期待的时间内无法解决的问题,比如,肌腱膜的钙化,神经卡压综合征,还有些特别顽固的皮肤病,单单用体内体外的筋膜释放疗法,效果确实不尽人意。这时候我开始上董福慧教授的刀针班,肖德华老师的针刀班,并跟随德国常琦瑛老师学习进修针刀技术。为了更准确应用局部结构针灸,今年1月,我回到郑州上于敦才老师亲自教授的新鲜尸体解剖致密课,这个课程使我尽可能接近活体去了解人体针刀结构层次的手感,和筋膜的结构。

以上的学习丰富了我的医学知识,颠覆了我的医学观,本文仅与同道分享我对人体内广泛存在的特殊组织结构筋膜的一些新认识,基本上都是来自以上的学习经历。

1. 什么是筋膜 - 人体的三维医学模式

人类的医学系统都是建立在解剖学为基础的,传统的解剖的本质就是人体结构的两个系统理论

1. 系统解剖:从功能角度研究人体,也是我们学的生理解剖学,共十大系统,消化系统,循环系统,呼吸系统,泌尿系统,生殖系统,运动系统,内分泌,代谢系统,免疫系统,神经系统

2. 局部解剖:从结构的角度来研究人体。产生了外科,头颈胸腹臀背,从皮肤到骨头,到内脏,只要从结构上来研究。

如果我们把这两种传统研究放在一起,称其为二维解剖模式,在这个基础上产生的医学模式为二位医学模式,系统解剖产生了内科学,局部解剖产生了外科学。

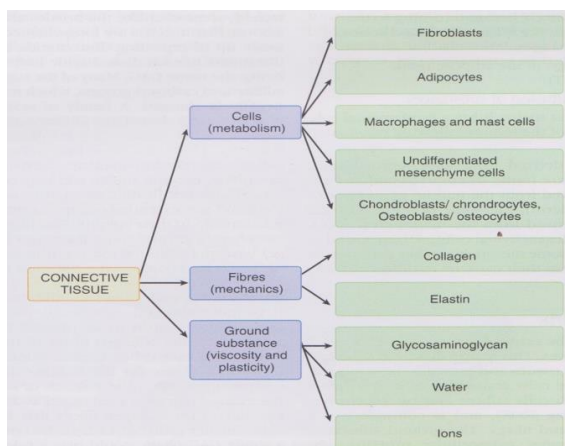
现在我们来换个角度来看人体:也是我们在大学里很少提到的,筋膜支架,筋膜从时间的角度来研究人体,就是人体如何维持结构,如何维持功能,从而使生命周期不断延长。这是从时间的轴线,寿命轴线研究人体,它所支持的学科就是防病治病,这就是我们中医学的相关学科。我们围绕着时间轴去干扰这些功能和结构,这是三维医学模式,是有宽阔而深远的发展。

为什么说研究筋膜学是从时间的角度来研究的呢,是研究延长寿命的呢?

1,从胚胎发育留下还没有未分化的细胞,干细胞,存留按在筋膜,随着身体的需要转化生成功能细胞。使细胞有更新功能。衰老是形体结构和生理功能的全面衰退。是一个动态的复杂的过程,衰老是筋膜中干细胞储备逐渐耗竭的过程,如何保持筋膜的正常装填,保持能不断向功能器官细胞转化,不断更新修复脏器的细胞功能,顺延长生命周期的关键。比方说,衰老的功能细胞,能得到及时补充,就可以修复机体损伤,延缓衰老,延长生命,这就是中医养身健身,治未病的研究

2. 中医侧重生命的时空轴,寿命;中医理论的生物医

学介入将会是从二维跨入到包括形态,功能及生命寿



命在内的三维科学研究层次,这就是三维医学模式。这个领域涉及面很广,目前也有很多再生修复生物产品出现。我们中医临床医生,如何发挥引导患者去了解这个领域?太高深的我们做不到,但是脚踏实地的做,一定会给你的病人,你自己以及诊所带来莫大的好处。

2. 现代医学对筋膜的认识

是胚胎发育期间有中胚层发育而来的结缔组织,有已经分化的筋膜组织,也有未分化的组织;人体筋膜立体支架结构,并且延伸到内联系内脏,包裹着内脏,联系脏腑之间;筋膜根据人体的发育需要,可以薄如真丝,包绕肌束,也可小如细胞膜,大致膜原,韧带等。人体筋膜储备系统为功能细胞的更新修复提供细胞源,并对功能系统的细胞活动参与调控,同时为功能细胞的生命活动提供一个稳定的内部环境。

疏松结缔组织和脂肪组织,都是非特异性组织,也就是未分化的不稳定的组织,这两种组织在机体内湿可以互相转化的,当机体摄入营养过剩是,部分输送结缔组织中的干细胞在增殖的过程中,部分细胞充满脂肪颗粒形成脂肪细胞,当机体营养匮乏时,这词儿细胞则被动员,参与集体代谢,脂肪颗粒消失。

“筋膜学”是在以维持正常结构和功能的时间,也就是生物学意义上的寿命,为身体如何维持和更新修复各个局部结构,它与前面提到的两个系统最大的区别在于它是以动态(活的)的角度研究人体结构。两个系统的基础上,

从筋膜学的角度看人体的各个部分每一天都是新的,活着的人体结构变化是绝对的,不变确实相对的。

筋膜学包括:筋膜解剖学,筋膜组织学,筋膜病理学,筋膜治疗。

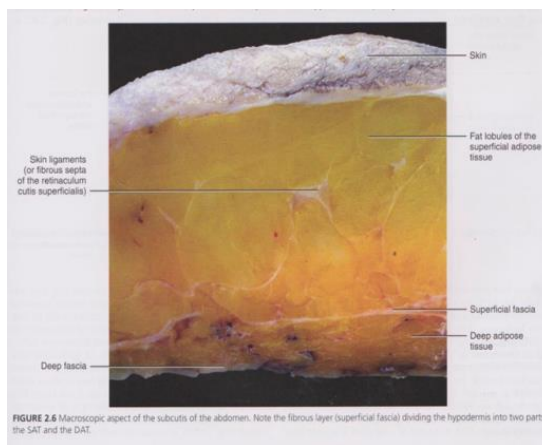
结缔组织结构

这个表格来源于【Functional Atlas of the Human Fascial System】作者: 谢谢借用

结缔组织结构:

细胞(代谢) 成纤维细胞, 脂肪细胞. 巨噬细胞与肥大细胞, 未分化的间充质, 成骨细胞. 纤维(机械) 胶原蛋白, 弹性蛋白, 基质(粘性与弹性) 粘多糖, 水 离子

浅筋膜结构: 图 1



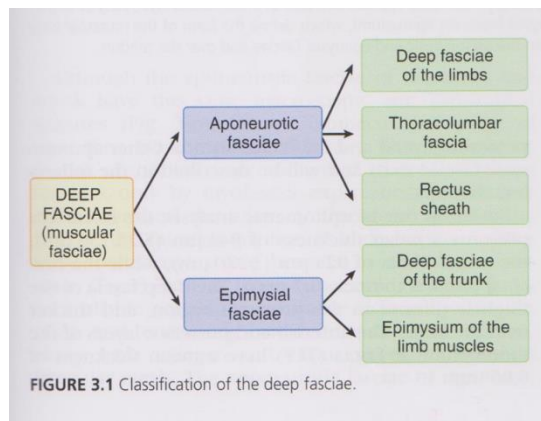
该图来源于【Functional Atlas of the Human Fascial System】作者: 谢谢借用

主要大量的弹性纤维混合松散交织的胶原纤维组成, 牵拉感受器, 温度感受器, 触觉感受器参与淋巴回流, 经脉循环, 了解浅筋膜对喜欢美容很有帮助, 图1 值得一提的是 skin ligament 皮肤韧带(or fibrous septa of the retinaculum cutis superficialis 或浅层皮肤支持带的纤维隔), 随着年龄的增长, 浅筋膜和支持带会逐渐失去弹性. 皮肤下垂, 皱纹形成, 皮下组织弹性下降. 抽脂术的解剖层次就在浅筋膜下层, 应该避免太过于表浅, 否责容易破坏皮肤韧带而会导致皮肤表面的凹凸疤痕,

深筋膜结构

骨骼肌的周围包隔着结缔组织, 其中包裹在整块肌肉外面的结缔组织为肌外膜是一层致密的结缔组织膜, 含有血管和神经解剖学称为深筋膜。肌外膜的结缔组织及血管和神经的分支深入肌内分割和包围大小不等的基数形成肌束膜, 包裹在每条肌纤

维周围的更薄一些的结缔组织为肌内膜，肌内膜含有丰富的毛细血管。各层结缔组织膜处有支持，传输营养和保护肌组织的作用外，对单条肌纤维的活动，乃至对肌束和整块肌肉的肌纤维群体活动也起着调整作用。

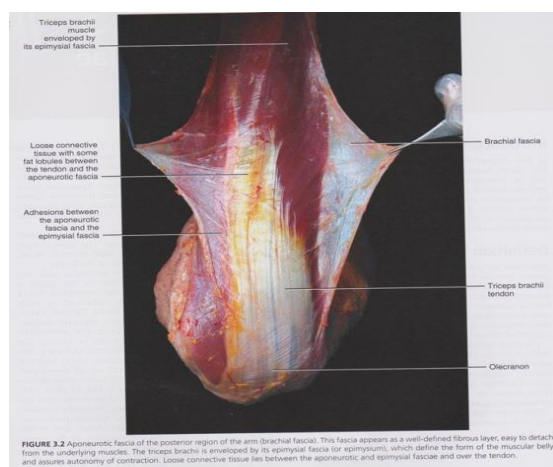


该表图来源于【Functional Atlas of the Human Fascial System】作者： 谢谢借用

深筋膜结构

深筋膜是指所有排列有序,致密的,与肌层相互作用的纤维层,深筋膜连节骨骼肌系统的不同点,并传导肌力,以上表图中表明:深筋膜 也叫肌筋膜 muscular fascia, 或 myofascial, 有两类结构, Aponeurotic Fasciae 腱膜性筋膜(图2):指所有包裹固定一组肌肉或在肌肉的附着处,接线清楚的纤维鞘,所在四肢腰胸部,腹直肌和四肢的深部筋膜,包裹多种肌肉,并连接成筋膜室。腱膜性筋膜可以看成是肌筋膜的汇集。

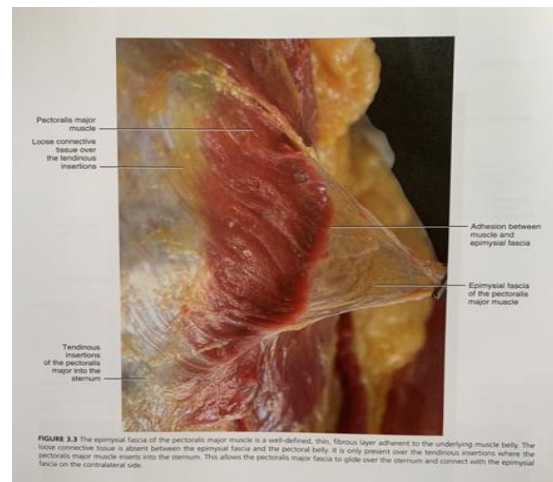
图2: Aponeurotic Fasciae 腱膜性筋膜



该图来源于【Functional Atlas of the Human Fascial System】作者： 谢谢借用

Epimysial Fasciae 肌外膜性筋膜 见图 3: 致密但结构规则,与肌肉连接十分紧密的胶原层,胸大肌,背阔肌 三角肌,特点:结构简单,传递协同肌纤维束。

图3: Epimysial Fasciae 肌外膜性筋膜



该图来源于【Functional Atlas of the Human Fascial System】作者： 谢谢借用

深筋膜内,主要有本体感受器, (proprioceptors) 指位于肌肉、肌腱和关节内的感受器,感受身体在空间运动和位置的变更,向中枢提供信息。有的将前庭器官的感受装置也列为本体感受器。

3. 中医学筋膜的认识

筋膜是中医经络的解剖基础。大家可以想象,如果我们试着把全身的穴位,经脉,络脉,浮脉,孙脉,奇经八脉,上下左右里外都联系起来,就是一个立体网络结构,内联脏腑,外络肢节,沟通内外,贯穿上下。

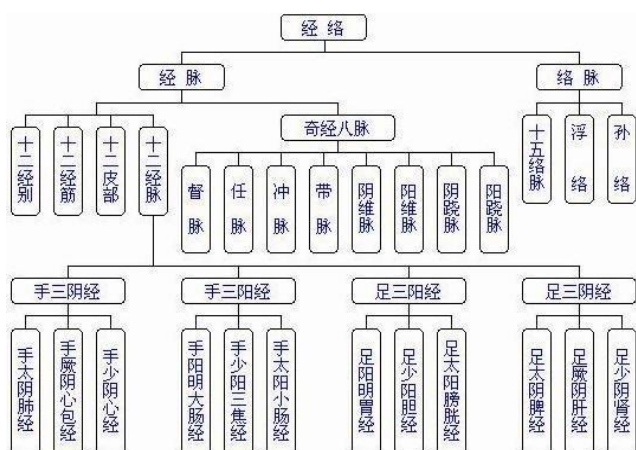
经络与筋膜的孔德之容

经络是穴位之间解剖相连的筋膜。气血流通的通道,当为孔为空,“孔德之容唯道是从”,气血方能流行。如果炎症产物,寒凝湿堆积,都会导致筋膜紧僵硬,堵塞经脉,无孔则不容,阴阳升降失责,无以生化收藏;不能出入,就不能生长强壮。所以经络的通畅很在乎筋膜的松弛。

国外学者也注意到筋膜和针灸经络的关系,并做了多项相关试验。德国 Staubesand 的一项有关筋膜电镜研究表明,筋膜层表面有无数以静脉,动脉和神

经穿过为特征的穿孔, Staubesand 鉴定这些穿过的神经是无髓的自主神经. Heine 发线大部分 (82%) 穿孔点在位置上于中国针灸学的 361 个经穴相一致。在颈肩或颈臂痛患者舌上研究了这些筋膜穿孔点, 发现这些穿孔点特别不规则, 穿孔血管被一异常增厚的环状胶原纤维在穿孔的正上方缠绕和束缚, 在这些点上进行显微外科手术松解缠绕, 并使得那些血管获得自由出入, 可使病人的情况明显改善。以美国 Helene Langevin 教授为首的研究组提出针灸经穴网络是间质结缔组织网络的表象的假设, 该假设也得到超声影像显示试验的支持。

经络油经脉络组成, 经脉油进一步分为十二经脉, 奇经八脉, 以及附属于十二经脉的十二经别, 十二经筋, 十二皮部, 而络脉油分为孙脉, 浮络, 这就是说, 经络油主要干道经脉组成, 经络油者大小粗细, 深浅等不同的“形态”。这和结缔组织的形态结构高度相关, 结缔组织也有大小不同形态的分布, 原



林教授把经络的分布层次与结缔组织的层次相对应有个假设: 十二皮部, 孙络, 浮络 与真皮层致密结缔组织, 皮下疏松结缔组织相对应; 十二经脉, 十五络脉与肌间隔疏松结缔组织, 神经血管束血管结缔组织相对应; 奇经八脉, 十二经别与肌间隔疏松结缔组织, 器官门被摸结缔组织相对应。

腧穴分布与筋膜高度相关

1. 穴位是富含能产生较强生物信息的神经感受器, 活性细胞的结缔组织, 聚集处, 为信息聚集和传递的中心, 经穴的反应与刺激与刺激量有关。
2. 四肢和躯干经穴: 大多数定位于肌间隔疏松结缔组织少数定位于神经血管束, 器官门结缔组织;

3. 头颅部经穴: 多数定位于神经末梢分布的真皮层致密组织层, 皮下疏松结缔组织层
4. 颈根部和面部经穴: 定位于肌间隔疏松结缔组织聚集处。

因此可以认为穴位的物质基础为筋膜结缔组织, 以及其中的血管神经和 K^+ , Ca^{2+} 等离子富集区。

筋膜系统功能与经络生理动能

- 1) 支持系统: 由各种纤维组织承担, 连络脏腑和与肢体末端联络, 纵横贯通, 联系肢体筋肉皮肤, 浮络和孙络, 成为一个支架系统。
- 2) 运输功能: 神经血管淋巴被筋膜包绕, 在筋膜层内通过, 血液的循环输达, 神经信息的传递, 淋巴液回流, 经络的神气的传导, 共同完成脏腑与肢节气血生理运行, 以达到濡养全身。
- 3) 储备系统: 由间充质细胞负责细胞储备, 脂肪细胞承担能量的储备。人体胚胎发育的过程中, 未分化干细胞, 不断穿过这筋膜结构, 为成熟的功能系统提供源源不断的细胞元, 并分化成各种定向干细胞, 进而分化为功能细胞, 通过这种对功能系统不断的补充, 修补衰老损伤的功能细胞, 以更新维持集体结构和功能的相对稳定, 从而使整个集体能够维持较长的生命周期, 同时遍布全身的接地主组织筋膜支架, 在传统的神经和免疫系统的参与下, 调节细胞的功能状态和生理和生命状态, 为功能系统细胞提供一个稳定的美环境。
- 4) 免疫防御功能: 各种免疫细胞和免疫活性物质承担。功能系统和支持储备系统是由内外胚层细胞翻转折叠和中胚层分化出的各种定向干细胞和功能细胞形成这些功能细胞, 共同完成生命活动。

筋膜系统与阴阳

中医的阴阳是很广泛的, 本来说筋膜本身是不分阴阳, 但是如果从整体来看, 我们可以把筋膜解剖组织似为阴的物质, 那么筋膜的功能就是阳。我们可以在人体身上找到与其相对应的功能结构, 组织结构, 物质结构。这对于将来解决中医科学化的问题, 认识科学内涵的是很有帮助的, 因为这样可以找到阴阳所对应的组织结构。

任脉区域:

原林教授提出任脉人体前是内脏的被摸, 系膜 为任脉, 受双重神经交感神经和副交感神经支配, 植物神

经的兴奋产生神经递质，交感神经是促进细胞分裂和增值，副交感神经促进细胞的分泌，化生与蠕动，人体储备功能有赖于植物神经，使细胞分泌活跃增殖很重要，任脉能不能通，就看能不能调动副交感神经，使得内脏筋膜里边的干细胞数量增加，才能及时修复内脏细胞的微小的损伤，微损伤被及时修复，就可以避免内脏的衰竭，疾病或者损伤，消灭在萌芽状态。任脉很重要。筋膜支架相当于阴，各种功能细胞的功能相当于阳。

深部筋膜手法：腹部后壁的内脏筋膜牵拉，能使干细胞壁上的钙离子通道开放，激活细胞内增值机制，干细胞快数增多，干细胞密度加大，随时就可以调理内脏功能。

任脉在人体内部，受副交感神经影响。受意识影响，例如佛教徒打坐，气功，可以调节内脏功能；基督徒在圣灵里的祷告，与圣灵连接，也可以调节意识里的安静平稳也是有利于机体的修复，“你们得救在乎归回安息，你们得力在乎平静安稳。”以赛亚书 30:15

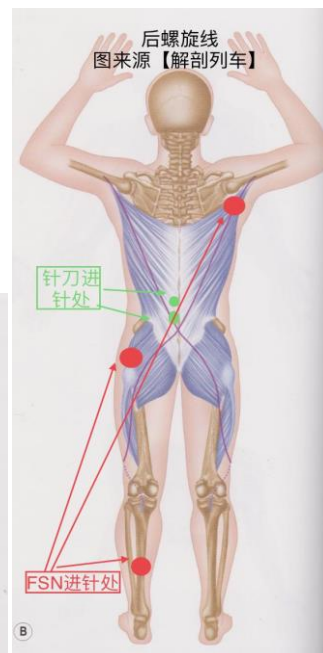
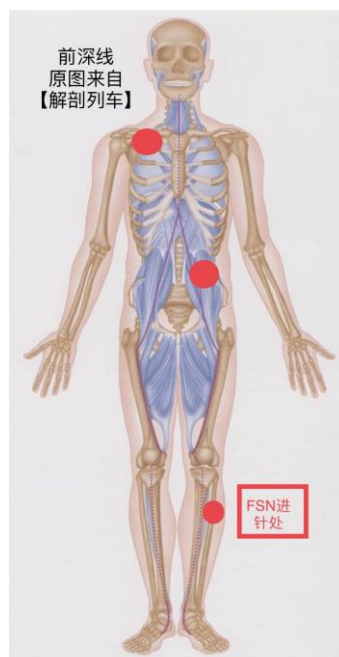
督脉区域：督脉是遍布躯体四肢肌肉关节周边的筋膜，原林教授认为全身肌肉之间的筋膜，都可以理解为督脉。而督脉，单一交感神经，没有副交感神经，所以意识是传不到那里的，但是督脉太阳经，接近体表，故外力动作机械都可以激活筋膜细胞。

皮部：是指皮肤和皮下的筋膜，即浅筋膜。我个人认为，人体胚胎发育过程中中胚层不断分化翻转折叠，井穴可以理解为筋膜折返，阴阳出入，阴阳交汇之处，这个理论就可以解释远处穴位“井穴”为何在临床运用中有类似“纲举目张”的作用。

4. 临床应用举例：

患者白人，男性，68岁，因腰痛伴右足下垂5年来诊，MRI显示腰3-骶1椎关节退行性炎症改变。双侧髋关节置换手术，舌像表现为肝血虚，脾肾阳虚，以及督脉为病，左关脉弱，胆热肝寒。用针刀+FSN+FRT，疼痛得到很显著改善，但是dropping foot 进步不明显。改用针刺厉兑大敦，加艾灸，同时艾灸命门，只用一次这样的治疗方法，治疗完后，患者感到舒服了很多，脚趾头开始有力量较前增加60%。继续每周治疗共5次后，完全恢复。用患者自己的话说他已经“100%痊愈”。

肝主筋，其华在爪，筋膜为肝气之极，肝血虚生精不足，趾端不养，故足下垂上抬不能。井穴，是神经末梢，毛细血管网丰富的地方，更是胚胎发育中反复折叠至趾末，筋膜的阴阳两面交汇之地，【黄帝内经】“病在藏者，取之井”，对于萎症，使用针灸加艾灸，就可以有效滴激活郁滞呆滞的干细胞，再生细胞，修复衰退损伤的细胞组织。



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Kidney Qi - 'The Way of Winter'

Jeff Docherty

Abstract

My motivation for writing this paper comes from the collective sense that we feel and know something is deeply amiss with the way we are living and how we are being in the world. We are in the midst of a meaning crisis. Our trajectory is providing us with such stark evidence that human activities are causing a descent toward chaos and left to its own devices it seems the basic Darwinian will to survive can be deadly!

It is complicated and deeply troubling, but we are entangled in suffering, in part addicted to our suffering, we even make suffering lucrative and impose it on others. 'Three great forces rule the world: stupidity, fear and greed.' - A. Einstein

Yet I find solace and hope in Classical Chinese thinking. During my 30 years of studying Traditional Chinese Medicine i'm left feeling we should look again at Classical Chinese thought, something important has been lost in translation and overlooked as a way of thinking. To reconstruct our interpretation is a process of renewal and our own restoration. Taking time to see more clearly, to consider just what was being communicated and attend to that landscape more skilfully is to rediscover a more authentic sense of Classical Chinese understanding and to expand our own perspective.

This is a piece that has come about through years of processing information and reflecting on experience. It is an attempt to create a window to observe a holistic view and to appreciate the wisdom of that insight, as represented by the Classical Chinese vision of Life.

Introduction

Classic Chinese thinking takes the view that there is a natural and appropriate way of being that enables us to live in accord with the world. Attending to our relations, our relatives, the tree, the water, sky and earth...

Crucially classic thinking discerns a greater and more deeply connected unity where Mind manifests as matter and realness plays out through our interactions in space and time. Living skilfully is inherently laced with meaning, purpose and value, the world is sacred, embodying the principles of life.

Looking to the universe indigenous peoples tend to see organisation, a collection, joined in a structural unit to serve a common function through dynamics, succession, cycles, rhythms and Da Qi, the Mind of Nature. They seek to organise social, political and economic systems that are resonant with the characteristics and patterns of the Biosphere systems on which we depend.

Certainly this is their message to an industrialised, modern, western world who needs to hear, because the sign of things being awry is when Nature is no longer regarded as our companion but instead reduced to our servant, and the fruits of that world view are now plain to see.

A tree isn't just made of wood, it is wood!

Space & Time

We are time-beings and still mark times, places and events of significance with rituals and rites of passage to acknowledge the symbolic life that gives special meaning to our well-being. These are opportunities to engage with enactive analogies, to explore relational meaning, significance, interconnectedness, communion.

Each season is imbued with its particular patterns of life, with Winter inspiring deep regeneration, restoration of spirit and the promise of new beginnings. In the UK we have the ancient tradition of the Winter Solstice,

signifying a new cycle of evolution accompanying the return of the light of awareness, overlaid with Christmas, the observance of a new birth of consciousness.

‘Winter’ when it is embodied carries a resonance with ‘Kidney Qi’ in Classical Chinese thinking. To understand this view we need only perceive our body-mind functions as an extension of the same informational processes we see throughout Nature’s patterns of organisation.

We can observe the ‘energy’ of the night in the diurnal cycle, and the same quiescent phase in the larger yearly round as Winter or as being an elder within our own life cycle.

These are fractals, forms on different scales, sharing and expressing the same underlying universal pattern. The skill of the Classical Chinese approach has been to differentiate and elaborate on the archetype of unity, through YinYang in such simple and natural terms as to make it sufficiently practical, personal and applicable.

The role of Kidney Qi

The themes reflected in our experience of winter, night, death/rebirth and their associated sensations, feelings, and ideas all concern the health of Kidney Qi.

In the Chinese Classic, *Su Wen*, (The Fundamental Questions) the Kidneys are described in these tones:

‘The three months of Winter
Are called closing and preserving....

One goes to bed early, one gets up late...
Taking care only of oneself.
Falling back on oneself, in possession of oneself...

This is the way that is natural to the Qi of Winter
Which thus corresponds
To the maintenance and preservation of life
To go against this current would injure the Kidneys
causing weakening in Spring

Through insufficient contribution to the generation of life.’ (1)

Winter has its place as the pivotal transformation between the end and beginning of life cycles, the returning point. Kidney Qi is seen as the very root of YinYang and by definition has a deep connection to Source Qi and eternal Life. Winter is endowed with a particular power of life, regeneration.

The movement of winter is twofold, initially a downward and inward one beginning in Autumn, that again wells to the surface in the upward and outward phase, emerging as Spring. This Winter Force is characterised by a deep gathering of all the elements to give structure to life, it is an intimate, treasuring embrace that restores our Qi, Blood & Essence.

The principle of this ‘gathering power’ is likened to Water, what is lowly and deep has the power to command and unify, with all the virtue the Sea and Oceans exert. Or on a cosmic scale we may observe the deep mystery of ‘black holes’, the Navel of a Galaxy, in our bodies The Gate of Life, the Lower Dantian, the deep reservoir for an elixir of Life.

This yielding power, like gravity, draws everything into itself where it condenses, becoming enriched and empowered. The essences of Kidney Qi are concentrated packets of vitality, like seeds providing the basic building blocks of life. By gathering, concentrating, treasuring and retaining all the valuable things of life, Kidney Qi is able to serve the conservation and continuity of life and provide its foundation.

It is also the bedrock of our mind, the basic will to live, our will power, volition and our capacity for concentrated effort. Kidney Qi creates a firm foundation so we can do what’s most important, stand upright on our own two feet.

Qi accumulates in order to arise, building strength for what is to come. The importance of the welling up of Qi at the end of winter is acknowledged as ‘Bubbling Spring’, the first Kidney acupoint. After the snow, the fragrance.

This is the generative power of Kidney Qi and reflected in it’s governance of our reproductive tissues. The Kidney Channel arises in the uterus and prostate gland, the deep, hidden fertile areas of the body, it expresses itself as both the Yin nurturance of the womb and the Yang proactive seeds of life. The very spark of life is within the power of the Kidneys, the channel that has its origin in the Uterus and Prostate. This Original Qi carries the blueprint of the Source of Life which becomes impregnated and encoded into the very fabric of our mind and body.

Life experiences & Kidney Qi

Kidney Qi is cultivated through the virtues of being centred, grounded, cool, calm and collected. We move

through life with a sense of care and attention with prudence, patience and caution based on wisdom not fear. We are stable, able to sustain, focused and attentive. With a balance of calming, nourishing Yin and progressive, encouraging Yang expressions helping us maintain a healthy lifestyle and balanced outlook. The path to get there often involves digging deep, sowing seeds and... abiding.

Winters Qi has the capacity to take us to the deepest and most mysterious rites of passage Life has to offer, the archetype of death and resurrection. This is seen as a daily occurrence in the mythological view of nature, most obviously in the setting sun being vanquished by night only to reappear in its full glory as the dawn of a new day, a cosmic recycling.

There is little to no understanding in our cultural systems of life's cycles and continuity, unlike in a Tibetan Buddhist culture where the Bardo, an instruction manual, is read to the dying on how best to navigate the phases of physical death and astral awakening. Impressive for a less developed region with low human development index ratings.

Dying to ourselves is an ongoing process, we undertake a 'small death' daily through sleep, taking up a third of our lifetime. Then there are the Winter Qi themes of periodic Dark Nights of the Soul and the Shadow aspect of our psyche. Navigating such adversities is modelled for us by avatars like Buddha, who before his liberation was assailed by Mara, the personification of all the antagonistic psychological forces of delusion, greed, and anger that hypnotise, confuse and terrify us.

And through the symbolic life of Jesus, his betrayal, ridicule, scourging, and crucifixion before his ascension. It is the personal consciousness that is crucified or in nirvana, 'extinguished'. Only then can we be born again transformed with a new perspective and appreciation of life. These encounters with fierce grace are often our most meaningful life experiences, we are grist for the mill.

'...is not the lute that soothes your spirit, the very wood that was hollowed with knives.' K. Gibran (2)

Care & Attention

Kidney Qi can become exhausted through modern lifestyles that do not respect our biorhythms, the deep natural ebbs and flows of transformation.

With an ever faster pace and intensity there are increasing pressures which means Kidney Qi depletion and exhaustion have become more commonplace. Allied to the fact that the afflictive emotion that most drains Kidney Qi is excessive or prolonged fear and we are now living in a time that undermines our very foundation, an existential threat to our most precious gift, Earth.

We have the lowest fertility rates in history, pathologies of chronic fatigue, exhaustion, anxiety and depression, a plethora of degenerative neurological disorders, all Kidney Qi pathologies. The remedy is to understand the movement of life and honour its place and purpose, to treasure and express it skilfully.

The Kidneys are generally seen as the most Yin Organ by temperament, so it has a propensity to receive, absorb, and assimilate. It would enjoy things of a contemplative nature like the Japanese practice or attitude of *shinrin yoku*, opening up the mind to bathe our senses in nature, to experience an intimate wonder, the awe of Nature as being fundamental to our lives.

We are seeking conscious companionship with Life, as Zen monk Shunryu Suzuki reminds us 'Wherever you are, you are One with the Clouds and one with the Sun and the Stars you see.' (3)

We may choose activities that are slow, deep and purposeful, exercises that stimulate our core; the legs, waist and spine. Behaviours that give food for thought to nourish the brain without too much frenetic overstimulation.

Eating foods concentrated with high nutrient value, slow cooked, and water based foods like soups, casseroles, nourish the Root to nourish the Kidneys.

Kidney Qi opens in the ears so 'listening' and reflecting, a way of being in the world that is deeply attentive.

And as winter merges into Spring we can embody the energy of 'Zen mind, beginners mind', being open to new emergent possibilities. Nothing is so transformational as changing our underlying attitudes, that hidden force that sponsors our actions.

In Conclusion

Our happiness is a choice cultivated through a spirit of gratitude, and forgiveness. Qi flows with a helpful, co-operative effort, nothing treasures the Qi more than a warm hearted good-will.

In the traditional Chinese view, nourishing the

movement of Qi through the seasons and phases of our lives is to serve it well. Winter-Kidney Qi has a fundamental part to play in unfolding the heavenly gift of our nature, our destiny, because Life is forever seeking nothing but the adventure and disclosure of its own mystery.

References

- (1) Su Wen, Huang Di Nei Jing, Chapter 2.
- (2) Kahlil Gibran, author, painter. On Joy and Sorrow,

The Prophet

- (3) Shunryu Suzuki, Zen Master, quote attributed to him

Inspirations

Laozi & Zhuang Zhou, Classical Chinese philosophers
Damo, First Patriarch of the Chinese Buddhist Lineage
Floyd Red Crow Westerman, and other indigenous
Native American Elders
Father Larre & Elizabeth Rochat de la Vallée, authors on
TCM



2021 International Traditional Chinese Medicine Conference 4th July
The Association of Traditional Chinese Medicine & Acupuncture UK (ATCM)

Acupuncture for Peripheral Neuropathy as a Complication of Chemotherapy in Cancer Treatments.

Christopher J Beach
Registered Physiotherapist & Acupuncturist

Background

Chris holds clinics at the Chilterns Multiple Sclerosis Centre in Wendover Bucks UK, and the South Bucks Hospice, High Wycombe Bucks, UK. Exposure to the wide variety of symptoms presented by people with MS at the MS Rehab Centre and cancer related symptoms often induced by chemo and radiotherapy at the hospice, have provided Chris with opportunities to practice a variety of techniques in acupuncture.

Chris has studied at numerous academic institutes and organisations;

- Centre for Alternative Therapies – Southampton 1987 under Dr's Julien Kenyon & George Lewith (Acupuncture & auricular therapy)
- Leeds Metropolitan University MSc Sports & Trg Injuries - Masters module acupuncture
- Introduced to scalp acupuncture Dr T J Wang & Dr Nei 2015, 2017
- Professor Dr Jiao, Shunfa 2018
- Miriadia Acupuncture USA – Auricular Therapy 2019.

Chemotherapy Induced Peripheral Neuropathy Acupuncture - Treatment Rational

- Disease source is crucial to determining cause and possible mechanisms at play
- Initial assessment to determine symptom characteristics;
- Location, Intensity, duration, provocation/easing factors, pain map,
- Pain; spontaneous, stimulus dependent such as constant burning, or intermittent shooting, electric shock-like or evoked (stimulus-dependent) elicited by thermal, chemical stimuli, such as the pressure of bed sheets, or the feeling of certain types of material or water against skin.
- Chemo induced neuropathy is varied with no two patients the same
- Glove and sock symptoms bilaterally are common but often with varying types & levels of intensity & sensation often easing as Rx reduces

Tips for the clinician during the assessment phase of care

- Compare the painful body part with a comparable non-painful body part, ideally its contralateral equivalent
- Normal side first, so patient knows what to expect as normal

- Work from the non-painful area into the painful area to map out the region for comparison post treatment and during review.

Examples of chemotherapy drugs that are most likely to cause nerve changes are:

- platinum based drugs, including cisplatin, carboplatin and oxaliplatin
- vinca alkaloids, including vinblastine, vincristine and vindesine
- taxane drugs, including paclitaxel and docetaxel
- antimetabolites such as methotrexate
- Examples of targeted cancer drugs causing nerve changes include:
- bortezomib (Velcade)
- thalidomide
- **Hormone therapies and bisphosphonates** are very unlikely to cause nerve changes. (Cancer research UK 2021)

Treatment Rationale

Micro System Acupuncture (WHO 1991)

- Jiao Shunfa techniques stimulating frontal cortex, sensory and motor cortex using recognized lines and acupuncture points as described in the WHO nomenclature¹

Diagrams of the Micros systems recognized by the World Health Organisations 1991 report are shown outlining the key lines used to treat the two case studies described.

Outcome Measure

Measure Yourself Medical Outcome Profile (MYMOP2)²

- MYMOP **measures** patient-perceived changes in symptom severity, wellbeing and ability to undertake a key activity. These **measures** are combined to provide a 'profile' which is quantified before and at one or more intervals during a course of treatment.

Case Study 1 Male 59, Stage 4 Prostate Cancer, excision followed by 3 rounds of chemo therapy - Outcome measure amended MYMOP

Key symptoms included; bilateral burning sensation of both soles of the foot. Activity – to be able to walk a half mile with a wellbeing score of 5/6.

Initial treatment; Gv20, MS Line 7 Sensory bilaterally upper 1/5th, Foot Motor & Sensory EA 2- 80Hz course

stimulation x 15 mins ³ (combination of rectangular currents and high amplitude waves).

Treatment progress over 6 sessions resulted in reduced severity of symptom 1 to 3/6 and improved ability to walk one half mile from 6/6 to 3/6 regarding effort and discomfort.

Quality of life score improved 5/6 to 3/6.

Case Study 2 Female 64, Stage 3 Breast Cancer, lumpectomy followed by 4 rounds of chemo therapy and 1 series of radiotherapy

Key symptoms included; Bilateral paresthesia hands and fingers. Activity – to be able to needle stitch as a hobby with a wellbeing score of 6/6.

Initial treatment; Gv20, MS Line 7 Sensory bilaterally upper 1/5th, MS line 6 motor with needle stimulation of the mid 2/5ths bilaterally to stimulate the upper limbs. Foot Motor & Sensory EA 2- 80Hz course stimulation x 15 mins ³ (combination of rectangular currents and high amplitude waves).

Treatment progress over 6 sessions resulted in reduced severity of symptom 1 to 3/6 and improved ability to needle stitch from 6/6 to 2/6 regarding effort and discomfort.

Quality of life score improved 6/6 to 2/6.

Summary

Chemotherapy induced peripheral neuropathy can present with different symptoms often bilaterally. Scalp acupuncture can be used as an effective treatment, whilst not providing complete relieve of symptoms, often positively affecting quality of life for people under cancer treatment regimes.

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泻心法医案医话三则

于佐文

【摘要】运用泻心法治疗湿疹、眩晕、不寐病案医话三则。

【关键词】泻心法；甘草泻心汤；半夏泻心汤；三黄泻心汤；体质

泻心法系指以五泻心汤化裁运用的治疗法则，它是寒热并用补泻兼施的常用方剂之一。按其性味，除大黄酒黄连泻心汤纯属苦寒以外，余均为苦寒、辛温同用，能泄降、又能开通，因此，泻心汤可称辛开苦降法的代表方，应用范围较广^[1]。

湿疹

白人女歌手，27岁，阳明燥金体质，自幼即有湿疹病史。症状发作、加重与情志及饮食不节有关，用激素药膏等治疗无效。刻诊：全身散在皮疹，以面部、颈前、腰背、腹部为重，皮肤粗糙、色红，干痒、灼热，心烦难忍，纳佳，大便日一次，舌红苔薄白，双脉浮数有力。

中医本无湿疹病名，归属于疮疡范畴。经云：诸痛痒疮，皆属于心。阳明燥金之人，金火格局，施薪若一，火就燥也；阳明之上，燥从湿化。拟甘草泻心汤加减：

生甘草 15 黄连 5 黄芩 10 半夏 10
干姜 5 大枣 10 陈皮 5 生地 15
连翘 20 大黄 5 栀子 10 赤芍 10
荆芥 5 防风 5

服药两剂来电述：大便日 3-4 次、略腹泻，嘱其减至半量，继观。

一周后复诊，周身皮疹明显减轻，已无明显干痒灼热，情志佳，大便日一次。效不更方，再进 7 剂、半量，2 周后疹退痒消。

【按】据华盛顿大学医学院科学家进行的一项研究表明：抓痒可引起疼痛，大脑释放血清素（5-hydroxytryptophan, 5-HT, 5-羟色胺）来控制疼痛，但是，血清素不仅仅只是抑制疼痛，它通过 5HT1A 受体激活 GRPR 神经元，使瘙痒变得更加严重^[2]。

我在英国治疗湿疹、荨麻疹、痤疮、银屑病等皮肤病，但见以痛痒、烦为主诉的，往往以甘草泻心汤为基础方加减，通过打破痒—抓（痛）—痒循环，抑制大脑释放血清素，除烦止痒，皮肤症状也往往随之改善。

眩晕

华人男，59岁，厥阴风木体质。头晕三周，病起于郁怒，转颈及行走时加重。伴腿软、疲劳乏力、双太阳

穴处胀痛、鼻干、口干喜热饮、胃脘痞闷、四末冷、夜寐易醒、小便频色黄、大便干结日一行，舌红，有瘀斑，苔黄白相间略厚腻，脉右寸尺弱，双关弦。既往有乙肝病史多年。

中医诊断：眩晕。此为肝风犯胃，厥阴阳明同病，证属肝热胃寒。治以苦辛开泄法，泄厥阴、通阳明，方用半夏泻心汤加减：

半夏 15 黄芩 10 黄连 5 干姜 5
生姜 5 党参 10 大枣 10 炙甘草 10
茵陈 20 白芍 10 茯苓 20 白术 15

【方注】生姜与干姜并用，旨在辛开；加白芍合芩、连酸苦泻厥阴，降肝气冲逆；党参、半夏佐茯苓通补阳明化浊气。

一周后复诊，头晕十去七八，双太阳穴胀痛已消，无胃脘不适，双下肢有力、步履轻快，余症亦均减轻，厚腻舌苔退、瘀斑消。一诊药以中鹄，继服上方 7 付收功。

不寐

笔者母亲，75岁，阳明燥金体质。平素眠佳，每晚九点上床，一觉至天明。一周前始，无明显原因每于凌晨 3、4 点醒来，难以再入睡，只能玩游戏消遣。白天感心慌气短、烦躁头晕，小便次数增多 6-7 次。

投以三黄泻心汤：大黄 3g 黄连 3g 黄芩 3g

舍妹到同仁堂抓中药饮片两剂，沸水浸泡 5 分钟，去渣而饮，当晚眠安。第二剂服完，心慌气短诸症消失，小便次数亦减至 3-4 次/日。

【按】经云：壮火食气，故令心气不足，见心慌气短、小便频等诸症。临证厥阴风木、少阳相火、阳明燥金体质见此病机，投以三黄泻心汤往往覆杯取效。沸水浸泡，乃意在薄取其寒凉之气，以轻泄三焦无形郁热。

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作者简介：于佐文，中医临床医学博士，现在英国大曼城地区工作。临证精于望诊，注重体质辨识；以形气立论，创建了“应象·体舌脉症针药”治疗体系。

联系方式：yuzuowen@hotmail.com

气血疏通小腿全息疗法治疗强直性脊柱炎验案

湖南中医药大学国际学院博士研究生 张昕（英国） 指导：黎明

摘要：强直性脊柱炎(AS)是一种慢性、进行性、炎性风湿病，属风湿免疫科常见病、难治病。西医治疗该病一般用非甾类抗炎药、糖皮质激素及相关生物制剂等，其临床疗效亦不尽人意。中医属“痹症”、“肾痹”、“骨痹”“尪痹”等范畴。本人应用红杏林学院道医传人李正坤老师“气血疏通小腿全息疗法”，治疗2例强直性脊柱炎患者，效果显著，笔者报道出来，以期对强直性脊柱炎的治疗提供新的思路和方法，同时促进民间中医药的发展。

关键词：强直性脊柱炎，气血疏通小腿全息疗法，点按，针灸

强直性脊柱炎(ankylosing spondylitis AS)是一种慢性、进行性、炎性风湿病。其特征是中轴骨骼、周围关节和肌腱发炎，如不及时治疗，随病情进展会出现脊柱疼痛，活动受限，严重者可发生脊柱、关节强直或畸形，严重影响患者的生活质量。现代医学认为，本病与遗传、感染及自身免疫相关，好发于青年人，我国发病率约为0.3%，发病高峰年龄16-30岁，男女比例为2:1-3:1。【1】目前西医以非甾类抗炎药、糖皮质激素及相关生物制剂主要包括肿瘤坏死因子-α抑制剂(TNFi)、IL-17抑制剂、IL-23抑制剂和Janus激酶(JAK)抑制剂等，【2】虽有一定的疗效，但长期使用不良反应大。

笔者采用气血疏通小腿全息疗法治疗强直性脊柱炎2例，取得了良好的疗效，举例介绍如下：

1.1 王某，男，29岁，在英留学生。初诊日期：2021年4月24日。主诉：腰疼，活动不利半年。自去年11月中旬腰痛，进而不能翻身活动受限。因为上网课不想耽误学习就自行用头顶着床头听课，之后出现头、颈僵硬不能活动（低头、仰头、左右转动都不能），伴头晕背痛，全身乏力，恶心不思食，左手麻痹，左下肢膝关节肿痛，不能弯曲，上下床困难，夜晚时有痛醒。既往有类似病史反复发作10年余，但以本次发病最重。家族父系有强直性脊柱炎病史。这期间有经中药和针灸治疗，膝关节肿痛有减轻，颈椎也能活动一些了。但从去年圣诞后为新冠疫情高发全英封城，

所有诊所商店全部关闭而未能及时得以治疗，直至全面开放才来就医。

现症：形体消瘦，脊椎有侧弯，背部右侧肌肉高于左侧，整个背部肌肉呈板状僵硬。右侧腰臀肌肉萎缩，较左侧小1/3。双髂脊处均有压痛，尤以左侧痛剧，并放射到左腹股沟及大腿前侧疼痛。左膝关节强直僵硬不能弯曲，颈背部疼痛，活动颈部则痛增，肢麻，左手臂不能上抬触高。伴神疲乏力，眩晕耳鸣，咽干口燥，恶心不欲食，怕冷，失眠，尤其夜间疼痛更重，翻身困难，不能自行穿袜子，大便日2次，小便黄，舌苔白厚腻，脉沉细弦。诊断：强直性脊柱炎 中医属痹症。辨证：四诊合参，知为冬季风寒湿邪趁虚而入，痹阻经络，寒邪久留，内舍于肾，深侵入骨，督阳不化，伤骨损筋，致骨质变形，肢体不能屈伸，活动障碍。肾阳虚衰，温煦失职，而见形寒肢冷，昼轻夜重，寒湿郁久化热伤阴，故咽干口燥，小便黄。肝肾精血不足，筋骨失养，故肢麻，消瘦，眩晕耳鸣，。总为“尪痹”【3】：肾虚督寒症。治法：强督壮阳，疏通气血，祛邪通络。

1.2 用气血疏通小腿全息疗法，按同侧同路同比例以及落脏原理，调理分步：1 找堵点（标记）；2 找气道口（操作气道口）；3 操作堵点；再重复操作2、3步反复3遍；4 落脏补虚增效；5 针灸巩固疗效。关键是打开气道口（排放理念，给病症和邪气以出路），使堵点（病症在小腿上的全息反映点）消失，病症（所要解决的疾病问题）消失。具体操作：

第一步：根据病症找堵点，按同侧同路同比例的原理。

在下肢小腿腓横纹中点（委中穴）与足跟后缘最高点连一直线，为后正中线又称支气管，属倒置的人体躯干部在小腿上的全息反映。用于定位，主要调理人体颈椎 1-7、胸椎 1-12、腰椎 1-5 以及骶尾骨的疾病。体侧线：膝关节下中点与委中穴之间连线的中点，外踝后切迹直下与足跟赤白肉际交点的连线叫体侧线，也是后气道与外气道的分界线。从支气管上划分出各椎体之间的全息分界点：以患者的手用同身寸四指三寸法从足跟骨上沿定位颈胸点（颈 1-7）、再从颈胸分界点到委中穴连线的中点 1/2 处定胸腰分界点（胸 1-12）、从此点到委中穴的 1/2 处为腰椎与骶尾骨分界点（即下 1/2 段为腰椎 1-5，上 1/2 段为骶尾骨段）

医者以拇指按压法沿足跟骨外缘朝斜下方找到颈 1、2、3、4、7 点有疼痛为堵点，再沿支气管在胸 11、12 点及腰 3、4、5 点以及骶尾骨段，均以拇指按压法找到其痛点，以“#”指甲掐印法标记堵点（痛点）。在后气道小腿腰 4 椎平行到体侧线的 1/2 处，以拇指缓慢按压找到明显疼痛点，尤其左小腿此处有一条索状的筋结，以“#”字指甲掐印标记堵点。在后气道小腿腰 4 椎到骶尾骨的体侧线上均有压痛，均予以标记其堵点。

第二步 找气道口（有 3 个气道口 I：支气管口 位于足跟骨正中央与足底的赤白肉际间。II：后气道口 d 线的 1/2 处：位于支气管口到外踝后切迹直下与足底赤白肉际交点连线（后气道口线）上的 1/2 处。III：后气道口线与体侧线的交点：外踝后切迹直下与足底赤白肉际交点处。

第三步 操作气道口及堵点：i：在支气管口用食指或中指或三角雀等工具，躲骨（避开足跟骨）以轻柔高频手法点按 1-2 分钟，再检查附近的堵点，颈（1、2、3、4、7），询问患者疼痛有否减轻，如有减轻，说明气道口已打开了。接着点按堵点，仍用手指或三角雀沿足跟骨外缘朝斜下方找到颈 1、2、3、4、7 的堵点，轻柔高频快速点按其堵点 1-2 分钟，再点按支气管口 1-2 分钟，沿支气管从下往上点按胸 11、12，腰 3、4、5 以及骶尾骨段的堵点，如此反复点按气道口、堵点共 3 遍。ii：在后气道口线的 1/2 处，仍以轻柔高频快速手法点按 1-2 分钟后，再用右手拇指以相同的力度检查其后气道腰 4 椎平行到体侧线 1/2 处的堵点，如条索状筋结是否有变软或患处疼痛有减轻，继续点按堵点 1-2 分钟，再以相同手法点开气道口、点按堵点各 1-2 分钟，反复点按 3 遍。iii：在后气道口线与体侧线的交点处，以相同手法点按 1-2 分钟，右手拇指用相同力度缓慢按压检查腰 4 平行到体

侧线上的堵点，痛有减轻，继续点按堵点 1-2 分钟。再点按气道口、堵点反复操作 3 遍，直至患者疼痛感大大减轻或消失。

第四步 落脏：以补虚增效（落肝脾肾三脏）

肝 气道口：足背部足大趾跖趾关节外侧（靠大趾侧）。落脏点：足跟骨上沿与委中穴连线中点 1/2 处，平行到胫骨内侧缘，用右手拇指按压法找肝的落脏点有痛感时，以“#”字指甲印标记。

脾 气道口：在足大趾跖趾关节前侧缘，横纹线边缘。落脏点：在小腿肝的落脏点上 2 寸，用拇指按压法找到痛点并以指甲“#”掐印标记。

肾 气道口：在足内踝前切迹线垂直向下，与足底赤白肉际处。落脏点：从支气管上找到腰 2 点向内平行到小腿肾经交点（往内侧平行胫骨方向 3 横指），以右手拇指按压有痛感，用“#”掐印标记。

左右两腿都是以同样的方法找堵点、气道口。先操作疼痛更厉害的左侧小腿，再操作右腿。重复点按打开气道口，疏通堵点，反复操作各 3 遍。落脏肝脾肾补虚增效只需操作一侧即可。

具体操作：肝、脾、肾都是首先打开气道口，以手指或三角雀轻柔高频点按各气道口 1-2 分钟，再用右手拇指缓慢按压肝、脾、肾各自的堵点，如痛有减轻后，继续点按肝、脾、肾各自的堵点各 1-2 分钟，重复点按气道口、堵点各操作 3 遍。

第五步 为巩固疗效，在各个气道口、堵点点按操作之后，继用 0、22*13mm 的 0、5 寸针，各以快速点刺进针 1-2 分深，留针 30 分钟后取针完毕。

第一次治疗后，患者叙述全身轻松，疼痛也大大减轻。自述在治疗过程中手脚都有潮湿出汗，尤其足底有冒凉气的感觉。告诉患者应该注意 1 要心情舒畅，不益过度劳累；2 做完治疗后四小时内忌冷饮且不宜碰冷水。注意保暖，避免受风寒，不翘二郎腿。3 因病程已久且病情严重要坚持治疗，10 次为一个疗程。患者系留学生学习繁忙，故每隔 3 天做一次治疗，每周 2 次。

2021 年 5 月 14 日：第 6 次治疗。患者述“在做治疗时，从颈部到整个背部有一股很大的热气在背脊里流动，很温暖舒适。”背部变得柔软，疼痛、肌肉僵硬感完全消失。并告知之前每次的治疗都一次次地在进步、好转，做完第 3 次后就能上抬手臂触高了。膝关节亦消肿能活动弯曲，自行穿衣服鞋袜，生活已能完全自理。现除偶尔夜晚有疼痛时吃点“布洛芬”片外，都没有用过其他任何药物。睡眠好转，纳谷亦香，二

便自调。告知患者可以进行一些适当的功能段练和做八段锦等。

2021年5月29日:第10次治疗。患者右侧腰臀部肌肉较前丰满了,面色红润,精神饱满,舌淡红苔白腻,脉沉细较前有力。患者自述已有3周没用过任何药物,而无任何不适。已完成了毕业论文,即将回国。到9月份得知他已回国工作了。

讨论:

强直性脊柱炎(AS)是一种好发于16-30岁青壮年的疾病。我们治疗的俩例患者均系在此年龄段的男性。患者在发病开始都出现骶髂关节疼痛,疼痛向上蔓延进而出现腰骶疼痛。一例只在腰骶关节疼痛,而本例患者延及到颈背部疼痛,随着病情加重,疼痛越来越重,影响到睡眠,疼痛由髋部放射到左大腿前部,并有晨僵和颈背、腰骶僵硬,且颈、胸、腰椎,膝关节活动受限,不能弯腰和翻身下床,生活自理困难。因长期反复发作而合并有脊柱融合弯曲畸形变。

AS在中医属痹症范畴。《黄帝内经》中有与强直性脊柱炎相关描述“病名曰骨痹,是人当挛节也……”指出本病发病机制为风寒湿邪乘虚而入先天禀赋不足的肾督,使人体筋脉失调,骨质受损,督脉乃一身阳脉之海,督脉之气维系着肾与命门,统摄人体真元【4】。笔者采用气血疏通小腿全息疗法,是红杏林学院道医传人李正坤老师集40多年临床经验研究成果,总结的一套高效,无害,“绿色疗法”。只要是发生在人体躯干部和大关节的病症,在小腿全息反射上均有反映点出现。他首倡“气道口”理论:“给病邪(风寒湿热毒邪)以出路”。将小腿分为支气道(与人体的椎体一一对应,调节椎体的问题)、外气道(调节前胸腹问题)、后气道(调节后背部的)、内气道(调理肝、脾、肾脏,以补益增效为主)、气道口:位于足底赤白肉际一圈(排病气即风寒湿热毒邪,给病邪以出路)。如此将身体躯干、大关节和小腿作为分区对应,这些区域又称之“气血通道”,各个气道能调理人体不同部位的病症,如酸、麻、肿胀、疼痛、筋结和结节等。其操作分四步在小腿、足部:1找堵点(标记);2找气道口(操作气道口);3操作堵点;4重复2,3操作各3遍。关键是:A打开气道口(排放理念,给病症或邪气以出路),如上例患者在治疗中有手足潮湿出汗以及足底冒凉气为风寒湿邪排出之症;B堵点(病症在小腿上的全息反映点)消失,如上例患者小腿上的肿胀、疼痛点及

条索状筋结消失;C病症(所要解决的问题)消失,如患者颈、背、腰、骶髂关节的疼痛、膝关节肿胀疼痛和僵硬等症全部消失。李老认为:任何疾病都是人体气血通道堵塞,导致气血运行不畅而产生的。故采用“取类比像”全息对应等方式,通过点按四肢上的全息点,给身体病症,气血打开一条通道,最直接地疏通病症气血堵塞部位,让病气自行排出。气血疏通小腿全息点按疗法,在祛病的同时,振奋了阳气(整个支气管就是由督脉所统)。督脉起于会阴,并于脊里,穴位众多,总督人身诸阳。如该患者在治疗过程中能感觉到从颈到整个背脊部有一股热气温暖舒适全身,说明该疗法具有激发人体真元阳气,提高自身的免疫力,从而放松了脊椎周围的肌肉,减轻了局部疼痛,促进脊柱及髋关节功能的恢复,也增强了机体对外环境因素的抗冲击力,抑制了病情的进展,纠正免疫紊乱,减少了患者对镇痛药的使用,降低了药物引起的不良反应。大大地增强了患者的各种自信心,提高了患者的生活质量。通过点按肝、脾、肾补虚增效,更加有效地达到固本培元,振奋元阳,疏通气血,舒筋活络,扶正祛邪,从而以达调和阴阳之功效。

强直性脊柱炎目前发病机制尚不明确【4】,临床以腰痛,驼背等症状为主要表现。患者往往伴有严重的心理负担。医学界目前尚无统一明确的治疗方法,中西医各有优势,但长期服药可导致各种并发症且耗费大量的医药费用开支。气血疏通小腿全息疗法,在该病的治疗中已崭露头角,尤其对患者自我医疗保健,简单易操作,无任何副作用,安全高效,既减轻了患者许多不必要的痛苦,也为国家和个人、家庭节约医疗费用开支,是一种“简”、“便”、“廉”的好方法,很值得推广,亦不失为临床治疗AS的参考疗法。

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中医教育信息

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Shanghai University of Traditional Chinese Medicine Enrolling Students in the UK

Prof Enqin Zhang , UK Academy of Chinese Medicine

The latest news, one of our partners: Shanghai University of Traditional Chinese Medicine has begun enrolling students in the UK and Europe. Applicants must be non-Chinese citizens. Master applicants must have a bachelor's degree in Chinese medicine, or acupuncture or medical related majors; apply for doctoral programs, must have a master's degree in Chinese medicine or acupuncture or medical related majors. The school duration is three years, and the first year of basic theory and professional courses are completed in London. If you are interested, please contact me.

Phone 020 3509 9050 /07846193488.

e-mail: prof.engincan@hotmail.co.uk

Website: www.uacm.co.uk

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版面设计 Graphic: Jessie Wang

英国中医药学会

The Association of Traditional Chinese Medicine and Acupuncture UK

地址 Address:

ATCM, Suite 1

The Brentano Suite

Solar House

915 High Road,

North Finchley

London N12 8QJ

电话/传真 Tel/Fax: 0044 (0)20 8457 2560

微信 WeChat: ATCM-OFFICE

电子邮件 Email: info@atcm.co.uk

网站 Website: www.atcm.co.uk