

特別報導

小朋友的診斷和治療



新醫學雜誌

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穴壓介紹

練氣

婦女專欄

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## 前言—新醫學雜誌創刊的目的

### 謝麗貞 醫師



1969 年臺灣大學商學系畢業，1994 年高雄醫學大學學士後醫學系畢業，2001 年取得臺灣大學預防醫學碩士學位，2005 年取得臺灣大學預防醫學博士學位。

曾任職數家在臺外商銀行高級主管前後 20 年。因對生命的再認識，拜道學高人為師，學習氣與氣功及其在臨床醫學上的應用，致力於中國傳統醫學的研究，迄今逾 30 載，以整合中西醫學為終生志業。

穴壓與拔罐學會為依法設立、非以營利為目的之社會團體，以賦古老的醫學智慧：穴壓與拔罐時代的證明，推廣兩者之功用，及開闢一方專業領域為宗旨。而新醫學雜誌的創刊是緣由於「穴壓與拔罐學會」需要一個專業的學術刊物來彙整我們過去研究的結果。然而我們還期許本雜誌除了能繼續展現我們往後深入研究的學問外，更能作為引導和檢視我們對其未來擴展縱向及橫向相關領域的探索。

賦以穴壓與拔罐時代實證醫學的證明是我們的目的，不過要提升這兩者的效益，一定會涉及人體的能量，唯有自身擁有強大駕馭自如的氣能，才足以使穴壓與拔罐得到理想的功效，那就是要「練氣」。

因此，本雜誌著重在練氣、穴壓、拔罐三大主題的理論、技術、臨床應用，以及相關知識的探討。所以本雜誌除了作為各方面學術研究論文發表的園地外，也希望將所有研究結果，尤其是全民有興趣的各種日常生活預防保健的健康知識，分享給各界大眾，並且提供和一般民眾互動的醫學諮詢服務。

歡迎各界有共同理念的人士加入我們的行列，一齊支持朝目標前進。

## 穴壓與拔罐學會成立大會暨期刊首刊發表

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## 社論

## 穴壓介紹

謝麗貞

穴壓屬於中國傳統醫學的治療項目之一，長期以來常被用於舒緩病人疼痛、疾病以及損傷治療上。

氣血理論主要是在講“氣”，此乃屬於中國傳統醫療的重要理論之一，與人類生活能量來源息息相關。氣可以被視為瀕臨能量形成的物質，或者是能量物質化的起源點。它並非原始不能改變的物質，也並非僅僅為活力能量。中國傳統醫學尚未能區分其在物質以及能量間的差異，以及未能了解生理與心理是否受到“氣”的影響，或者受到其他被“氣”干擾的物質影響。換句話說，所有的物質起源都來自於“氣”，其他能量物質都會受到“氣”的影響，不同部位所受影響程度不同，從完整型態像是身體、血液與體液等，到屬於無形物質，如思考、能量以及空氣。

在現代化科學範疇中，“氣”乃屬於純粹人類生活所需能量，透過運動以及人類使用來提升自我能量。“氣”大抵可分為三種形式如下：(1)與生俱來的“氣”，自人出生後獲得；(2)自動產生的“氣”，藉由自然呼吸所得；(3)取得的“氣”，人類透過特殊呼吸方式下所得。自動產生的“氣”源自於兩種來自於體內自發性且

隨時間變動的系統，其中之一是連結到外部環境，亦即三焦系統，藉由外在環境的空氣與食物取得能量，而另一種則是以心臟為中心之血管網絡，其在心臟細胞中產生電子訊號來刺激心律，使得身體中的“氣”以及血液循環。

取得的“氣”是人類透過特殊呼吸方式下所得，因此人類可以得到除了自動產生的“氣”之外的能量，此形式的能量當累積到一定程度，就能夠促使血液循環系統並自動打開身體內的“生命開關”，來產生更多的“氣”能量，並藉此改善身體健康。藉由啟動“生命開關”所獲得之能量，我們可以有效率地啟動各種身體內的不同系統。當我們可以改善身體健康環境，就能夠抑制疾病與老化，以達到延長壽命的功效。如果沒有額外透過上述方式獲得“氣”，人類也可以透過氣功養身，然而如果沒有外部的“氣”，就只能靠本身的“氣”以及自我產生的“氣”運作。

藉由生命能量的穩定來維持人類健康，

“氣”主要是透過經絡來在體內流通。依據經絡理論，經絡的運行就如同管道一樣，透過我們的皮膚、肌肉以及器官等維持平衡以及健康。沿著經絡有許許多多的穴位，提供外部通道至經絡，以提供身體內部傳導組織與器官之途徑。透過“氣”與物質間的傳導，使得身體系統運作平穩。當身體受到損傷、情緒影響、疾病、壓力或受到較差的生活型態干擾體內常規的循環系統，如氣體、血液、淋巴以及其他體液等，我們就會開始感覺到病態。然而，透過外部獲得的“氣”促成之生命能量，會更有效率地促使身體健康並且抑制疾病與延緩老化。

穴壓亦屬於透過外部獲得“氣”的方式，是一種大多透過手指以溫和但有力的方式刺激人體經絡以及穴位，可以開啟人體流通的管道，如同控制人體器官運作位點。各穴位代表獨特之人體組織、器官或系統，並反應人體之生理狀況，因此刺激這些穴位可以影響該穴位所影響的身體組織或器官之運作功能。利用外部獲得的“氣”，穴壓治療可以刺激經絡以及能量點來掌控身體生長能力、修護以及調節身體組織與器官之生理運作機制。穴壓治療是一種非侵入性的治療模式，治療者不僅僅需要傳導他或她本身的“氣”給病人，來強化他們的力量支持生理運作機制，亦透過強力介入來舒緩疾病。

穴壓治療可以按壓至幾乎所有的穴位。資深的從事穴壓治療者可以輕易地控制能量流動，並且透過遠端帶動所有的穴位，

促使他或她從外部取得“氣”。穴壓是一種治療或緩解廣泛的疾病的方式，亦可經由受訓良好的穴壓治療師執行，針對不同穴位反應不同身體部位狀況，作為及早偵測疾病之篩檢工具。總言而知，穴壓的技術並非具有危險性，而且可以結合其他不同類型的治療方式進行。

“穴壓可以僅透過身體作為唯一之治療工具，此外，若經由技術經驗成熟之治療師，其所可能造成之傷害非常的渺小。在執行此治療時，病人通常衣著整齊地躺在病床上，單次完整的治療時間會依據治療者的技術以及治療方式不同而不同，大抵是從幾分鐘至一個半鐘頭左右。穴壓治療師通常會被要求具有執行氣功治療的經驗，如經由持續性的呼吸調節訓練以及學習中國醫療包含經絡與穴位用在改善治療效益上等基本原理。如此一來，治療者方能藉由按壓經絡或穴位的方式，傳遞他或她自我身體內的“氣”來治療病人。

理想上，治療者應該具有基本現代醫學科學的知識，才能描述更多在西方文化下存在具有實證依據之臨床問題，依據上述提到之技術以及理論，穴壓可視為一種兼具安全且有效率的方法，主要可用來治療現今各種生活形態下的疾病。

## Editorial

# Introduction to Acupressure

**Dr. Lisa Hsieh**

Acupressure, one of the therapeutic modalities in traditional Chinese medicine (TCM), has been administered for relieving pain, illness, and injuries for centuries (Wei LY, 1986: 202-209).

“Qi-Blood Theory”(Lee, 1996:51-94), one major theory in TCM, pertains to all human life empowered by a life energy force, called Qi. Qi can be deemed as “matter” on the verge of becoming energy, or energy at the point of materializing. It is not some primordial, immutable material, nor merely a vital energy. Traditional Chinese thought fails to distinguish between matter and energy and asserts that the functioning of body and mind is supported by Qi and by the other vital substances that are the manifestations of Qi. In other words, the basis of all is Qi: all other vital substances are manifestations of Qi in various degrees of materiality, ranging from the complete material, such as body, blood and fluids, to the totally immaterial, such as mind, energy and air (Kapichuk, 1983; Maciocia, 1989).

In modern scientific terms, Qi is the pure energy of life that human gain through exercise and that human use to

promote ourselves. There are three forms of Qi, (1) Inborn Qi that is “Qi” we acquire at birth; (2) Automatic Qi that is “Qi” we generate from natural breathing; and (3) Acquired Qi that is “Qi” we generate from special form of breathing practice. Automatic Qi originates from two automatic dynamical systems in our body: One is connected to the external world, the “SanJiao system” that acquires energy from air and food from the environment, and two “Heart-centered vessel network” which generates electrical signal on the heart cells to stimulate heart rhythm and enhances circulation of Qi and blood in the body.

“Acquired Qi” is derived from a special form of breathing practice, people can, therefore, acquire energy beyond the “automatic Qi”. Such form of energy, when accumulated to an enough level, is capable of enhancing our blood circulation and to activate “life gate” in our body to gen-

erate additional Qi energy as well as to improve body health. Based on the energy we gain from the activation of “Life gate”, one can enhance the efficiency of various dynamical systems in our body. As such we can promote our health condition, suppress sickness and aging, and lengthen our healthy life. Without the “Acquired Qi” practice, one may also do work and can be called QiGong. It is, however, only based on our “original Qi” and “automatic Qi” to work, instead of using the “Acquired Qi” that we empower ourselves to do the work.

Human health is maintained by the smooth flow of life energy-- Qi through pathways in our bodies called meridians. According to “Meridians theory” (Dai, 1986:52-72; Kawashima, 1992:303-309), meridians act as conduits that maintain balance and health throughout our body’s skin, muscle, and organs. Along meridians are numerous acupoints which serve as external doors or openings to the meridians that access the internal tissues and organs of the body. They transport Qi and material so that our body can function smoothly. When injuries, emotions, disease, stress, or poor lifestyle disrupt the normal circulation of air, blood, lymph, and other fluids in our body, we begin to feel ill. Energy of life enhanced with the help of “Acquired Qi”, will be more

abundant than normal so that body can function even efficiently to promote health and avoid illness and slow aging.

Acupressure, using the “Acquired Qi”, is a gentle but firm pressing stimulation mainly by fingers over meridians and acu-points, which are the doorways leading in and out of our body and act as monitoring points for the functioning of human organs. Each acu-point represents a particular tissue, organ, or system and reflects the body’s physical conditions; therefore, stimulating these acu-points influences the body’s ability to function regarding the respective tissues or organs. With the use of “Acquired Qi”, acupressure therapy can even stimulate meridians and vital points to monitor body’s ability to grow, repair and regulate the physiological functions of tissues and organs. Acupressure therapy is a non-invasive treatment module. The therapist not only conveys his/her own Qi to patients to enhance their strength to support physiological functions, but also interferes enforcedly to relieve illness.

Acupressure can access nearly all acu-points. A senior acupressure practitioner can easily control the flow and action of his/her “Acquired Qi” through remote points which access any and all acu-points. Acupressure is a means to cure and/or alleviate a wide range of illnesses



and can be a screening method for detecting illnesses by a well-trained acupressure therapist through the Acu-point- Reflecting-Pain held by each acu-point, which reflects each patient's specific body condition. Generally speaking, this technique is not dangerous and can be combined with other types of therapy.

Acupressure uses the human body as the only treatment tool. In addition, there is a diminished degree of risk when using a skillful therapist. It is often performed while patients are fully clothed on a table. The treatment lasts from a few minutes to half an hour, depending upon the therapist's techniques and decisions. Acupressure therapists are usually requested to have practiced beforehand the medical Qigong through persistent breathing exercise and to have learnt the general principles of Chinese medicine including meridians and acu-points to improve the treatment effects. As a result, the therapist may use his/her own body to help patients

by transferring his/her own Qi to the patient's body through pressing meridians and/or acu-points.

Ideally, therapists should have a basic understanding of orthodox medical science in order to address those more "evidence-based" questions generally presented in Western culture. Based on the abovementioned techniques and theories, acupressure may be considered a safe and effective method of treatment for people with a variety of lifestyles under most circumstances.

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穴壓肩頸部治療



穴壓手臂治療



穴壓頭部治療



穴壓下背痛治療



腸道治療



鼻炎治療



胃食道逆流治療



眼鼻治療

## 本期特別報導

### 小朋友的診斷與治療

治療小兒生長或疾病時，最重要的是要有敏銳的偵察力和對其生理功能、發育過程有充分的知識。小兒可分成為三個階段：新生兒、嬰幼兒及 18 歲以下之兒童，這些幼童最大的共同特點就是不會表達，也不明白自身生理機能的異常。除非有明顯的缺陷、外傷等嚴重症狀，如發燒、咳嗽、拉肚子、昏迷等家長會尋醫外，大部分疾病因父母親經驗不足，而延誤致殘。又一般小兒醫療也多依照家屬所陳述的症狀來醫治，因此許多不明顯的隱疾也就被忽略了。其次，小兒時期身體正快速成長，只有平均參考數據來比較成長的位階，無法預估個體的差異在未來是否可以變成正常，例如體重不足、個子矮小、說話遲緩、吞嚥餵食困難、不能翻身站立等等。即便這些現象已經明顯，但也無法知曉干預是否能提前協助改善。

而穴壓一方面採用穴道偵測和氣場感應，利用穴道對組織、器官的多向式影響，可以操控組織器官的生長方向和速度；另一方面，利用氣能啟動人體自動修護、自動調節及自動生殖的功能，促使人體朝恢復正常健康的方向改變，可以不必倚靠家屬主觀的症狀陳述，也補足父母親經驗的不足，更能正確地尋

找出疾病的源由、發現潛在的症狀，而提供能量促進快速的修正和成長。

穴壓治療在小兒生長或疾病治療時的功能，可以分成兩方面：(1)利用穴道反應疼痛去偵測出正確的病因和其部；(2)利用可啟動人體修護機制的氣能刺激組織器官進行修護，並改變生長的方向。換言之，穴壓在小兒生長或疾病上應用的過程就是：偵測觀察→找出症狀→循跡探察病因→直接提供氣能→操控穴道啟動人體自動修護機制→改善生理功能→調整生長發育方向和速度→恢復健康。這兩種功能不管是在任何階段的小兒均能適用並且具有效果，可以適用於天生缺陷、後天急、慢性病。在臨床上已有無數個案足以證實（請參閱本期刊後續 5 位小朋友所敘述的相關文章）。這些治療成功的關鍵因素當然包括了治療的黃金時間、療程的長短，以及家屬的配合。穴壓治療另一個成功的重要因素和治療師的氣能、穴壓知識、操作經驗，以及技術熟練度息息相關。

當穴壓治療者具有足夠強勁的「氣能」並學有技術，能經由穴道影響嬰幼兒的生長發育，調整、改正肢體的缺陷，以治療先天性身心障礙或缺陷的小兒。

嬰幼兒的天賦、體質及身心特性是由父母遺傳因子左右而形成，因此，這裡所提及的缺陷是指嬰幼兒在胚胎形成及出生後，因各種因素所形成別於常人的形體和功能，以兩方面來說明：(1)生理功能與(2)肢體形態。這兩者雖然受先天遺傳因子所影響，但可藉能量來修正其發展。穴壓治療者要利用穴壓來改正嬰幼兒的缺陷或不足時，需要具備以下知識和能力：

1. 人體氣血的功用互換與利用及其操作。
2. 嬰幼兒每個階段身體和生理功能的發展。
3. 嬰幼兒腦部中樞神經及周邊神經的發展和對肢體的影響。
4. 人體臟腑結構及生理運作的機制、功能的發展。
5. 人體四肢結構及功能運作的發展。
6. 人體身心的相互影響。
7. 腦部各部位的功能與發展。

穴壓就像一名雕塑工程師將老天所創作出來卻可能有變異的幼小人體，將其缺陷、變形、滯礙、殘害的因子逐一矯正，讓其發育成長為正常體態及生理運作的人。

成功修正所需要的條件，包括以下各項：

1. 黃金糾正時期內，也就是越早越好；
2. 足夠的治療時間。
3. 有關人員的耐心。
4. 家屬的支持。
5. 家屬的教育。

最後是穴壓治療者在利用自我氣能時，要有寬敞無私的心理、追求完美的愛心、精細的技術和操作的技術能力，更重要的是嬰幼兒父母的認知、支持和對子女永恒的愛護，否則難以完美的成功。



小朋友的穴壓治療

## Special report

### Use of Acupressure in Childhood Development and Illness

It is of paramount importance to have acute judgment and sufficient knowledge of physiological function and growth process while child growth and disease are treated.

The childhood development is divided into three stages, neonate, infants, and children aged 18 years or below. They have in common the characteristics, including unable to express and unaware of abnormality on self-physiological function. More often than not, the delayed treatment has been seen due to lacking of parents experience in detecting these occult abnormalities before seeking for medical service in the presence of severe symptoms like fever, coughing, diarrhea, coma and so on.

Second, as only the average figure can be referred under the rapid growth of childhood, it is impossible to forecast individual variation on whether the abnormality such as low weight, dwarf, aphasia, difficult to swallow and to be fed, the failure of standing up when turning around can turn into normal state

Acupressure adopt the detection of meridian and the sensation of Qi filed to manipulate the growth and speed of tissue and or-

gan by making use of the influence of multi-oriented meridian on the tissue and organ. The second is that acupressure can initiate self-healing, self-regulating, self-reproducing function through Qi to facilitate the shift toward normal function, which can dispense with the reliance on the report from families, make up fledgling parents, identify the origin of causes and latent syndrome, for further fast correction ratification and growth of energy.

The context of acupressure” here is to modulate and rectify physical defects by intervening the development of infants and children through fingers and palms embodied with considerable entropy of “Qi”.

Endowment, temperance, and characteristics of body mind are inherited from genetic compositions of parents. Various factors account for malformation and disease after-math embryo and birth in contrast to normal body and function. They are classified into two parts, including physiological function and limb morphology. Although both are determined by genetic factors, the maturation of both functions could be modulated with energy exerted by acupressure so as to avoid the defects and insufficiency in the develop-



ment of infants and children but so doing requires the pre-questies for the following functions.

1. Exchange and utilization of circulation and breath of body
2. Dynamic growth in physical and physiological each stage, perhaps week, of infants and children
3. Influences of central and peripheral nerve development on the body of infants and children
4. The mechanism and function regarding visceral structure and physiology of the body.
5. The development and operation of limb composition and function.
6. Reciprocal repercussion of body and mind.
7. The function and growth of each location in brain.

Acupressure is like a sculpture to shape the destined blueprint of a variety of small creatures into a normal physiological and morphological body in a stepwise manner to rectify defects, malformation, retardation, and eliminate detrimental factors.

However, the successful performance of acupressure is conditional on the following situation.

1. Rectification in due time
2. Time
3. Patience
4. Adequate intake of nutrients
5. Education

Finally, there are two important elements accounting for successful curation of acupressure. The practitioner with self-powered energy, impartiality, impeccable spirit, technique and ability, and parents' recognition, support, and eternal persistent and unlimited care for their children.



與謝醫師一起長大的小朋友

## Case Presentation

### Foot Varus

#### 足內翻

Born defect



2017.2 Before treatment

11 歲；治療前行走及仰臥時雙腳嚴重內翻兩足相踏；不能大步跑步；穿著矯正鞋.骨科醫師表示走路不跌倒就可以了。目前沒有治療方法。

11 years old; walking and lying on the back, severe varus in both feet; can not run in large strides; wearing corrective shoes. Orthopedic doctor said there is currently no treatment.

2017.7 After half a year treatment

半年後，治療效果顯著。

The treatment effect is remarkable



2018.9 One and a half years later, naturally lying on his feet when he is lying on his back, he can walk and run in a big step.

治療一年半後，自然仰臥時雙腳已可自然張開，可大步快速走路、跑步。

## 個案報導

# 幼兒溺水後癲癇持續狀態之穴壓治療

謝麗貞、吳雪鳳

### 摘要

一名二歲女童因溺水造成強直性癲癇持續狀態，無法發聲言語，沒有意識，不能吞嚥，肢體強直，角弓反張，手腳末端捲曲強硬，停止發育。個案於溺水後一年中接受各項治療，並長期服用抗癲癇藥物，無顯著的療效。之後，個案於三歲多時開始接受密集性的氣功穴壓治療，約半年期間，個案不再角弓反張，身體柔軟，手腳末端放鬆，仍舊沒有意識，但可進食。

關鍵詞：穴壓、強直性癲癇、溺水、癲癇持續狀態

### 一、前言

溺水是兒童常見的意外傷害之一。溺水後，最常見的是因水進入呼吸道導致氣管痙攣所引發的窒息、喉部痙攣或心臟停止跳動；另方面亦可造成吸入性肺炎、腦部及身體各組織嚴重缺氧，導致心臟、呼吸、神經、消化及泌尿系統等器官損害及功能受損，嚴重可致死。溺水兒童獲救，於心肺功能復蘇後，亦可能發生昏迷不醒，陣發性癲癇，嚴重者全身出現強直性癲癇與痙攣性的肌肉收縮等症狀。

一般治療癲癇是以服用抗癲癇藥物

做為治療方法，穩定腦部異常放電的區域，使癲癇得以控制，然而仍有少數病人癲癇的發作是難以控制。特別是癲癇持續狀態(status epilepticus)，因其為一種持久性、系列性的發作，在兩次發作之間，沒有完全的恢復期，如果再是屬於強直性癲癇，將引起身體各器官及組織損傷而危及生命(Clark, Brater, Johnson ed., 高雅靜譯, 1996:301)。控制癲癇，除了服用藥物，還有一些特殊的食物治療，或是開刀，如果這些方法都難以控制，而病人又無法或不能開刀時，換藥、改變藥物的劑量將會是繼續治療的途徑。然而，在持續治療的過程中，癲癇狀態

維持的時間愈長，會造成腦部及身體各器官與組織的嚴重損傷及病變，如引起角弓反張，手腳末端捲曲強硬，停止發育等，要解除或改善此些症狀使其恢復或接近正常，醫院診所的介入治療仍有其侷限。

因此，從人體的結構或生理功能來看，如能使組織器官進行修復是這類病例最佳的治療方式。穴道是人體自動動力系統的體表的控制樞紐，經過穴道可以左右人體生理的運作；穴壓治療（acupressure）正是啟動人體組織器官自動修復、改善缺陷的一種有效的治療方法，此方法以指力的能量代替針灸中的針，控制病人身上的穴道，在病灶處進行操縱治療，刺激身體的修復更新。該法一方面避免針灸侵入性的傷害，一方面可以同時傳輸「氣」給病人，用能量強制干預以增強治療的效果。氣功穴壓治療在臨床上有多方面的功效，在文獻上已有相當多的記載(Hsieh, et al, 2004:168-176; Hsieh, et al, 2010:1-14; Hsieh, et al, 2006:1-14)。此治療方式最大的特點為啟動人體的自動修護系統，其原理在於穴道係控制人體多向式生理功能運作的外在樞紐，可以用「氣」去開啟並控制組織器官的修復與成長，這對於人體結構或生理功能上調整、改變與修正，具有相當顯著的功效。嬰幼兒在成長的過程中，特別是發育遲緩、生理功能異常或肢體變形者，若能早期接受氣功穴壓治療，透過穴道的能量傳輸及

強制轉變生理功能，加速修補和改正肢體的畸形，可以有很好的效果。

## 二、個案病史

患者為一名三歲多女童（2006 年出生）。於二歲時，掉進養蝦池，溺水造成腦部受傷、感染、肺炎、缺氧等，使腦神經細胞受到損害，而使全身長時間異常放電，造成強直性癲癇持續狀態，無法發聲言語、沒有意識、不能吞嚥，必須插管強制餵食、消化遲緩、可自行呼吸，但肢體結構畸形，骨骼發育不全、變形、肌腱韌帶僵硬與攣縮，肢體強直，角弓反張，手腳末端捲曲強硬，非常瘦弱，且停止發育。個案於溺水後一年中接受各項治療，並長期服用抗癲癇藥物，無顯著的療效。

## 三、穴壓治療

患者於三歲多時（2009 年 5 月）開始接受氣功穴壓治療，半年內接受密集治療（2009 年 5 月至 2010 年 1 月），治療總數約 120 次。

每次治療時間約 30 分鐘，依當次治療部位的不同而有略加增減。

治療約分兩方面：

1. 生理功能的缺失：如吞嚥、呼吸、腸胃消化、停止發育等。

以能量傳輸經相關穴道刺激各生理功能的修復、成長與強壯。

2. 肢體結構的畸形：骨骼發育不全、變

形、肌腱韌帶僵硬和與攣縮，肢體強直，角弓反張，手腳末端捲曲強硬等。

以能量強行鬆弛肢體骨骼關節的結構，擴大再生長發育的空間，再以相關穴道刺激各肌肉、骨骼與肌腱韌帶的生長，同時調節其運作的協調功能及力量。

患者於接受氣功治療療程期間維持一般生活狀態，且未同時接受醫院診所的復健治療。於每次氣功治療後記錄患者之身高、體重、頭圍等基本量測。期間並觀察個案之肌群運用方式如姿勢、肢體肌張力包含角弓反張程度、手腳末端放鬆度、吞嚥功能等日常生活動作狀態。

#### 四、結果

患者第一次接受密集氣功穴壓治前，為三歲多的患者原本為癲癇持續狀態、肢體強直，角弓反張，手腳末端捲曲強硬，不能吞嚥，且停止發育。(圖一)接受穴壓治療後，患者解除癲癇狀態，全身與四肢肌肉鬆弛，可吞嚥，但仍舊沒有意識。這段時間內患者吞嚥能力明顯進步。在生理結構的變化上，患者接受穴壓治療期間的體重已有成長，不再角弓反張，身體柔軟，可進食，手腳末端放鬆。(圖二~五)。



圖一(Figure 1)



圖二(Figure 2)



圖三(Figure 3)





圖四(Figure 4)



圖五(Figure 5)

### 五、討論—穴壓治療對溺水後癲癇持續狀態病患的影響

幼兒溺水後癲癇持續狀態造成意識不清、發育遲緩、生理功能損害或肢體變形者，均有其專屬的原因，有些可以改善，有些無法改變。本個案為溺水所造成，卻無適當及有效的治本法，只能症狀處理期能降低日後的影响，但抗癲癇等藥物顯然治療功效不彰。

本個案採取穴壓治療時，已是溺水後一年多的時間，錯失救治黃金期。再

加上，病患是在污濁的養蝦池水中溺水，所產生症狀較單純溺水更為複雜，其內部器官受到嚴重感染，特別是腦部感染部分。此使病患長期處於強直性癲癇持續狀態，角弓反張，手腳末端捲曲強硬，嚴重的程度已危及生命安全，若不解除該狀態，任何治療方式僅是延緩死亡的措施。

個案改以穴壓治療後，最基本的治療成效是解除癲癇持續狀態。此治療方式一方面傳輸「氣」給病人增強體力能量，另方面則經由穴道採取干預修護，影響身體周邊神經系統，強制轉變肌肉骨骼系統的生理功能，加速自體修補與改正肢體的畸形，使全身與四肢肌肉鬆弛，並改善無法自行吞嚥狀況，進而突破已停止發育的生理狀態，漸次恢復其肌肉與骨骼的功能作用，使病患在身高與體重上有所成長。

人體的生理機制具有嚴密相互影響的作用，特別是腦部對全身的影響。本個案是腦部異常放電導致顛癇，就常理而言，理應從腦部著手治療，但腦部結構複雜，較不容易治療且耗時，如無法迅速解除病患嚴重癲癇持續狀態，將延誤病情。由於穴壓治療能對周邊神經與腦部中樞神經兩大系統進行獨立分開治療，所以本個案採取優先解決周邊神經系統問題的治療方案，接續再進行腦部中樞神經系統的治療。然而，就在病患初獲治療成效時，卻被其家人傳染病毒性疾病而死亡，使得該治療未能繼續進

行，特別是自行吞嚥能力的強化與腦部中樞神經的治療，此為本個案臨床治療最大的遺憾，因為穴壓治療對於能否影響腦部中樞神經，使近似植物人無意識狀態的腦部運作機制恢復功能運作與發展部分，還缺乏臨床治療經驗。由於治療中斷，有關穴壓治療能否影響近似植物人無意識狀態的腦部運作機制，使其恢復功能運作與發展部分，則被迫中止。雖然整個治療計畫止於最初階段的治療遺憾中，但本個案證明穴壓治療能在病人無意識狀態下，針對周邊神經系統進行適當及有效的獨立治療，解除首要危害生命的症狀，並突破治療溺水後生理功能損傷的醫療困境，逐步恢復其運作。至於溺水所造成腦部中樞神經系統傷害的治療部分，雖未能檢證此方法的臨床治療是否具成效，但卻是一個值得再深入研究的治療方法。

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小朋友的穴壓治療

## Case Report

# Acupressure Therapy in a Child with Status Epilepticus after Drowning

Li-Chen Hsieh, Hsueh-Feng Wu

### Abstract

*A two-year-old unconscious girl with status epilepticus could not voice and swallow due to drowning. She had bodily rigidity, opisthotonos and curly limbs. Arrest of development was also noted. She received many treatments, including antiepileptic drugs therapy during one-year after drowning. However, there was no significant benefit effect after these therapies. Therefore, she started receiving intensive Qigong acupressure therapy when she was more than 3 years old. After about half-year treatment of Qigong acupressure, she had no opisthotonos and limbs curl. In addition, flexible body and relaxed limbs were found after this therapy. She could eat without dysphagia but she was still unconscious.*

Keywords: Qigong Acupressure, Tonic seizure, Drowning, Status Epilepticus

### Introduction

Bronchospasm can result in asphyxia, throat convulsion or cardiac arrest. Furthermore, it can also result in aspiration pneumonia, hypoxic encephalopathy and serious hypoxia in various tissue. Not only impairment of organs function, such as lung, nerve, digestive system or urinary system, but also death can be found. Un-

consciousness, paroxysmal epilepsy, tonic seizure or convulsion will be noted after resuscitation of drowning children. Taking anti-epilepsy drugs is the main therapy of epilepsy. We can control seizure by stabilizing areas of abnormal brain discharge. Unfortunately, some patients with seizure are intractable. Specifically, status epilepticus is persistent and serial attacks and there is no recovery period between two attacks. Moreover, tonic seizure will be

critical because of organ or tissue impairment (Clark, Brater, Johnson ed., Gao Ya-Jing trans., 1996:301). To control seizure, except for taking drugs, special food therapy or operation can be considered. If operation is not suitable or acceptable, change drugs or increasing dosage of drugs are the only method to continue treat epilepsy. However, the longer status epilepticus present, the more serious impairment of brain, organs and tissues happen, such as opisthotonos, curly limbs and rigidity and arrest of development. Therapy is limited for relieving or improving these symptoms/signs in the hospital and clinics. From the views of human anatomy or physiological function, hence, it is the best method to treat seizure through restoring of tissue and organs. Acupuncture point, located in body surface, is the key to control human automatic power system. It can affect the physiological function via acupuncture point. Acupressure, using the energy of fingers substitutes for the needle in acupuncture, is the effective therapy because it can start automatic repairing and improving defects through controlling acupuncture points of patients for the treatment of a lesion. On the one hand it can enhance the effect of therapy due to mandatory intervention of energy, “Qi” trans-

ferred to patients, and on the other hand it can avoid directly invasive injury like as acupuncture.

Acupressure therapy was proved in previous studies (Hsieh, et al, 2004: 168-176; Hsieh, et al, 2010:1-14; Hsieh, et al, 2006:1-14). The greatest feature of acupressure therapy is starting human automatic repair system. Its principle is controlling multiple direction of the physiological function by acupuncture point because we can stimulate and control the tissue or organ restore and development through Qi. Acupressure therapy had significantly effect for the adjustment, change and correction of human structure or physiological function. Acupressure therapy had good effect during the growth of infant, especially infant with stunting, abnormal physiological function or limbs deformity, it can transfer the energy via acupuncture point, which leads to forcing to change physiological function, enhancing repair and correcting the deformity of limbs.

### **History of this case**

The girl was more than 3 years old (birth in 2006). She drowned because of falling into the shrimp pond and she suffered from pneumonia, hypoxic encephala-

lopathy and infection when she was two years old. Status epilepticus was noted after this episode. In addition, the child with unconsciousness cannot voice. Nasogastric tube feeding was done due to dysphagia. Though spontaneous respiratory was noted, she was emaciated and arrest of development was noted.

She had bodily rigidity, opisthotonos, limbs curl, limbs deformity, skeletal hypoplasia and maldigestion. She received many treatments, including antiepileptic drugs therapy during one-year after drowning. However, there was no significant benefit effect after these therapies.

### Acupressure Therapy

The patient with more than 3 years old received Acupressure therapy on May, 2009. A total of 120 courses was performed and about 30 minutes per course spent. Two aspects of treatment were considered: (1) The defect of physiological function: such as swallowing, breathing, digestion, stopping development, etc. They can be restored, continue to grow or strengthened after transferring the energy via the stimulation of acupuncture points. (2) Malformation of limbs: such as skeletal hypoplasia, deformity, tendon stiffness or contracture of ligament/tendon, rigidity,

opisthotonos and curly limbs. To transfer the energy, it can relax the structure of joint and enlarge the space of growth. Furthermore, the growth of muscle, bone and tendon can be enhanced by the stimulation of associated acupuncture points. At the same time, the coordination function and strength of its operation can be adjusted. The patient maintained her general life style as usual during courses of Qigong acupressure therapy, and she did not receive rehabilitation treatment from the hospital or clinic at the same time. Height, weight and head circumference were collected after the course of Qigong acupressure therapy. We also observed the application of muscle groups, such as posture, muscle tone including degree of opisthotonus, the degree of relaxation in her hands/feet and the function of deglutition, etc.

### Results

The more than 3-year-old patient had status epilepticus, bodily rigidity, curly limbs, opisthotonos, dysphagia and arrest of development (Figure 1) before receiving Qigong acupressure therapy. Though she was still unconscious, she could oral feeding because restore the function of swallow after this therapy.



Moreover, status epilepticus no more occurred and opisthotonos disappeared because of relaxation of general muscle, tendon and ligaments. In addition, the function of swallowing was progressed day by day, and body weight gained during the period of therapy. (Figure 2-5)

The mechanism of physiological function has a close interaction effect between these systems, especially the influence of the brain on the whole body. Seizure is caused by abnormal discharge in the cerebrum. As far as common sense is concerned, it is reasonable to start treatment from the brain. But it is not easy to treat and time consuming because the brain structure is complex. It will delay to treat if we can't quickly deal with the epilepticus. The treatment pathway of Qigong acupressure can separate the peripheral nervous system and the central nervous system of the brain independently; therefore, the treatment plan in this case was that prioritized the problems of peripheral nervous system, and then the central nervous system. Unfortunately, the therapy was stopped even though effective results were noted because the patient was dead due to virus infection which was transmitted by her family. The experience of Qigong acupressure therapy on the unconscious state of vegetative people,

whether it can affect the central nervous system, and restore and development of the brain function, was limited. We proved that Qigong acupressure therapy is effective for unconscious patients with status epilepticus. It can improve these symptoms/signs, such as rigidity, opisthotonos and curly limbs, via peripheral system and relieved her critical condition. It can deal with the medical dilemma. Though the effect of central nerve system in Qigong acupressure therapy was not proved in this case, further study on the Qigong acupressure therapy for the injury of central nerve system should be performed.

## Discussion

The effect of a patient with status epilepticus post the treatment of Acupressure Status epilepticus was developed, which resulted in her unconsciousness, stunting growth, impaired physiological function and deformity of limbs in the drowning infant.

There are various causes of these symptoms or signs. Some symptoms/signs can be improved and some cannot. This case caused by drowning and no curable treatment was known. Only the palliative care was for her. However, taking an-

ti-seizure drugs was not effective. She missed the golden period of treatment because she started receiving intensive Acupressure therapy at one-year later after drowning. It was more complicated than the simple drowning because of drowning in the cloudy shrimp pond. Serious infection occurred, especially the brain infection, which resulted in status epilepticus, opisthotonos and curly limbs. It was critical and fatal if these problems cannot be solved. Any treatment is only a measure to delay the time of death. The major effect of acupressure was controlling status epilepticus. It can enhance physical energy because "Qi" transferred to patients and mandatory intervention of the function of muscle or skeletal system due to affecting peripheral nerve via acupuncture point. It also enhanced human automatic repair function to correct the malformation of limbs through relaxation of muscle and restore the function of swallowing.

Furthermore, the growth was restarted and improved the function of muscle and bone progressively. Therefore, height body weight gained after this therapy.

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小朋友的穴壓治療

## Original Article

### I. Qualitative Research

# Qualitative Research on Treatment of Acupressure and Cupping Evaluated by the Consolidated Criteria for Reporting Qualitative Research (COREQ) Guideline

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## Abstract

### Background

*The utilization of the methods and theories of quantitative study have demonstrated its benefit in discovering the subject- or patient- oriented experiences which can further be based and be summarized into constructs supporting propositions without being dominated by the viewpoint of study investigator. However, the case reports on the use of acupressure and cupping have not been addressed by qualitative study. We thus based on the COREQ guideline to examine the qualitative study for five cases receiving the treatment of acupressure and cupping.*

### Material and Methods

*We first developed a scoring system based on the COREQ with three domains and 32 items to assess the quality of the qualitative research in the field of acupressure and cupping. The interview candidate for this study were first selected by the investigator, LLCH, and the five cases were determined by the discussion between the authors to ensure the feasibility and representativeness. The quality of the five selected case report*

was evaluated by the authors using the developed scoring chart with standard calibrated between authors. The total score and that for each domain was used to summarize the quality of the case reports.

## Results

A scoring system for the 32 items and three domains was developed. The score for each item range from 0, 1, and 2, representing the quality of poor, modest, and good. For items not feasible for the scenario, a NA (not applicable) mark was applied and the item was not counted. The standard of each item for all authors were calibrated through discussion. The mean of total score was 29.8 (range: 25.0-33.0, full score: 64) with the item-adjusted rank of 47%. The mean of score was 13.2 (range: 10-14, rank: 83%), 7.4 (range: 7-9, rank: 25%), and 9.2 (range: 8-10, rank: 51%) in the “Domain 1: Research team and reflexivity”, “Domain 2: Study design”, and “Domain 3: Analysis and findings”, respectively.

## Conclusion

We demonstrate how to use COREQ guideline to score case reports of acupressure and cupping. Based on the COREQ standard, the quality of case report research is modest, especially for the Domain of study design.

Keywords: Qualitative research, Acupressure and cupping, Case reports, COREQ

## Introduction

The utilization of the methods and theories of quantitative study have demonstrated its benefit in discovering the subject- or patient- oriented experiences (Atchan et al. 2016, Anthony et al. 2009; Hyett et al. 2014; Schoultz et al. 2016; Tong et al. 2007, Nissen et al. 2014). Two therapies of TCM, acu-

pressure and cupping play important roles on treating diseases. There are numerous case reports addressing the efficacy of two therapies. However, whether these case report can be translated into qualitative studies to fit in with the quality of COREQ-based evaluation has been barely addressed.

## Methods

All patients were treated with acupressure and cupping by Dr. Lisa Li-Chen Hsieh at Ji Din Clinic, Kaohsiung, Taiwan. All were seen and evaluated by at least one of the research fellows. The main symptoms in all patients included nose allergy, sports injuries, height, fail to sit for a long time, scoliosis, and myopia and so on. The experiences during treatment including interaction with physicians and treatment efficacy were shown at self-report. Total of 11 potential relevant reports with “Acupressure and Cupping” come from Ji Din Clinic. 6 reports be withdrawn by professional researcher due to less quality of report. Finally, there are five self-reports included in the analysis (see Figure 1). We further quantify and assess the context of self-report to scientific principle for current evidences using a COREQ-based scoring system.

## Results

### Quality of self-report

After scoring each report to evaluate the quality of evidence with COREQ guideline, the mean of total score is 29.8 (range: 25-33) and the mean of score are 13.2 (range: 10-14), 7.4 (range: 7-9), and 9.2 (range:8-10) in the “Domain 1: Research team and reflexivity” (including personal characteristics and relationship with participants), “Domain

2: Study design” (including theory framework, participant selection, setting, and data collection), and “Domain 3. Analysis and findings” (including data analysis and reporting), separately (see Table 1). The worst performance was in the “Domain 2: Study design” with lack of description including participant selection and data collection.

In Figure 2, the means score in each section at five case-report is 83% (13/16) in the “Domain 1: Research team and reflexivity”, 25% (7/30) in the “Domain 2: Study design”, and 51% (9/18) in the “Domain

## 3. Analysis and findings

### Case-reports

#### Case 1

“I remember that at the beginning, Dr. Hsieh was treating my nose. However, in the past few years, most of the illnesses be treated by Dr. Hsieh were sports injuries, such as arms, legs, feet and even the spine.” “The first thing to overcome during the treatment is the pain when the injured part is pressed.” “When you are receiving the treatment, you can feel the strength of Dr. Hsieh's pressure. Regardless of how much Dr. Hsieh presses, there is only a feeling of oppression in the place where it is not a wound or a symptom.

However, as long as it is pressed to



some places, Dr. Hsieh will start to ask: "Is it painful?"

"The general doctors are only treating the symptoms, but Dr. Hsieh always find the cause of symptoms to provide the right treatment." "After seven years of treatment, my nose allergy and sports injuries went into complete clinical remission."

## Case 2

I am a ninth grade in high school boy. I have a problem with height for a long time. "Under the recommendation of the neighbor, I went to the clinic of Dr. Hsieh". "When I told the doctor that I wanted to treat the height problem, the doctor said that I had to cure my spine before I could grow taller." I was a little scared at first...." "Dr. Hsieh said, "The more pain beard, the more improvement will be". "Subsequently, I was receiving cupping treatment, and followed the instructions from Dr. Hsieh, continuing to do rehabilitation in the morning and evening every day!" "After receiving the treatment of acupressure and cupping by Dr. Hsieh, although the treatment was too painful, my height has improved."

## Case 3

"I am a 23-year-old girl. I knew Dr.

Hsieh from my childhood. For me, Dr. Hsieh is like my mother taking care of my body and mind." "Dr. Hsieh is proficient in modern medicine and traditional Chinese medicine. She integrates different perspectives from China and the West to explain the working mechanism of the human body for treatment. She is good at treating diseases through acupressure, cupping and patient cooperation."

"When I was a little child, I would suffocate as soon as I cried, and Dr. Hsieh told my mother that I should continue and gradually treat during the growth...." "When I was in college, I suffered from scoliosis so can't sit for a long time. Dr. Hsieh cured my spine and tail vertebrae. Now I can finally avoid being uncomfortable when I am commuting."

"Modern medicine pays attention to sub-discipline treatment. However, acupressure and cupping treatment can be integrated into one. Dr. Hsieh can take care of the body, mind and spirit through acupressure and cupping. "

"I am benefited from her treatment. I am very grateful to meet Dr. Hsieh. Without her, there would be no me who is healthy, happy, and knows how to grow up with the body."

#### Case 4

“I suffered from walking pigeon-toed, myopia and height and looking for treatment for year.” “I met Dr. Hsieh through other doctor’s introduction ... At first visit, I thought that the clinic was a medicine clinic in western style like I have ever experienced before, however, on subsequent visit, I gradually noted that although the clinic is not big, there are already many patients in the treatment queue.”

“Seeing the painful expressions of the first few patients made me very nervous during waiting.” “After I lay in the bed waiting for examination and treatment, Dr. Hsieh's took out a pen and pressed it down on my foot and asking whether it triggered pain.”

“At that time, I felt my tears falling out, but Dr. Hsieh's said, "How sick it is, how much pain it will be." “The more pain beard, the more improvement will be”. “...so I continued my treatment courses, with tears on ever section.” “After receiving Dr. Hsieh’s treatment courses, the symptoms improved much.” “I think that Dr. Hsieh is very powerful in that she can treat all parts of the body, both from inside and also the expressed symptoms with acupressure and cupping treatment.”

“...In my feeling, Dr. Hsieh is like a mother and also a teacher...She is afraid that patients will be influenced by misconceptions, so she told patients the correct one in a straightforward way”. “I learned a lot about how to take care of the body and to stay health... I know more about how to care and protect my body now”.

#### Case 5

“I am a ninth grade in high school boy. I suffered from height problem. I started receiving treatment from the fifth grade, from once a week to once a month.”

“The initial treatment was cupping at the center of the back, but one of the reasons why I didn't grow taller was because my stomach was not well absorbed, so I started cupping around the abdomen at the same time.”

“At the same time as the treatment of the height, the doctor also helped me to adjust the development of other parts. For example, I had a problem with the concave chest, so the doctor helped me to pull the shoulder below the chest and the chest. There are also face adjustments, such as cupping and massage, which allow me to grow a lack of muscle and let the jaw bone grow and expand.”

“After four years of treatment, my height has been increased 30 centimeters higher.”

“I no longer worry about heights leading to problems in life.” My symptoms of abdominal pain were gradually disappeared after adjusting the stomach.”

## Discussion

In this study, we demonstrate how to use COREQ guideline to score case reports of acupressure and cupping. By using a scoring system with the COREQ-based underpinning, we assessed and quantified the quality of case reports of acupressure and cupping. Among the 5 enrolled self-reports,

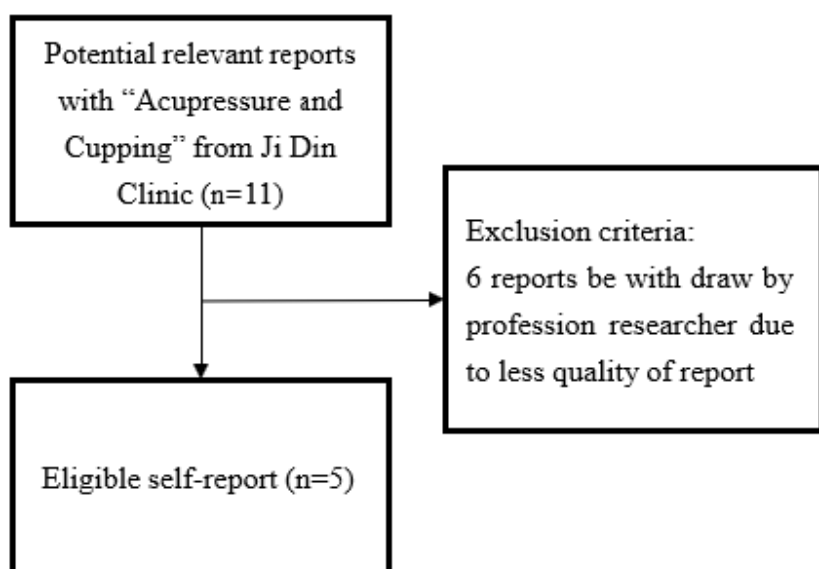
an overall rank of 47% (30/64) was observed, showing a medium quality for self-reports in this field.

Considering the scores of the aspect “Domain 1: Research team and reflexivity”, “Domain 2: Study design”, and “Domain 3: Analysis and findings”, the lowest rank was the “Domain 2: Study design” (25% (7/30)), followed by the “Domain 3: Analysis and findings (51% (9/18))” and “Domain 1: Research team and reflexivity (83% (13/16))”. The low rank in the “Domain 2: Study design” shows the aspect required for improvement, especially participant selection and data collection before being translated into qualitative studies to fit in the quality of COREQ-based.

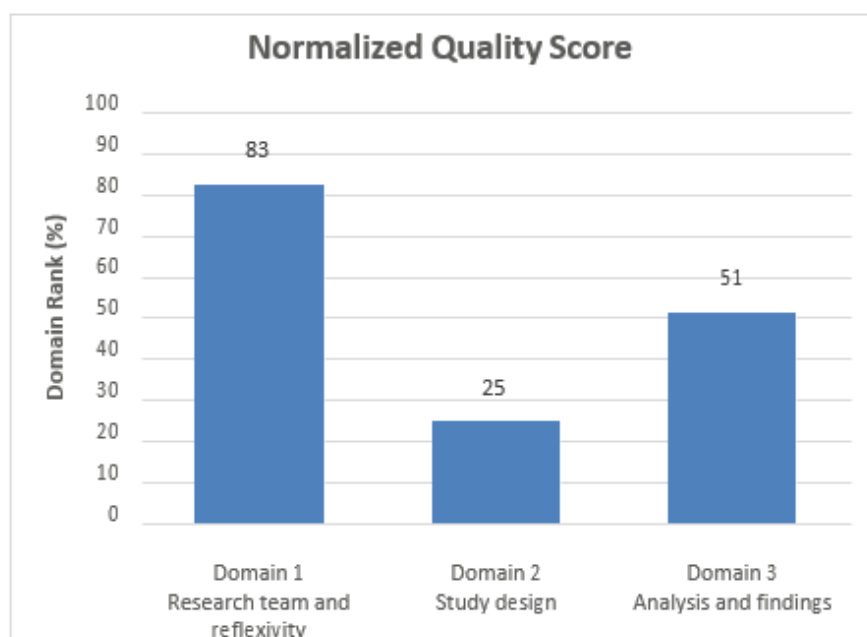


蜘蛛百合(Spider Lily)

花期為4-9月。夏季開花。有毒，如果誤食鱗莖會引起嘔吐、腹瀉、腹痛及頭痛等症狀。



**Figure 1.** Flowchart of retrieving self-report



**Figure 2.** Normalized quality score by each domain

Table 1. COREQ-based Scores in each item

Item	Overall	Case 1	Case 2	Case 3	Case 4	Case 5
Score	64	31	33	25	31	29
<b>Domain 1: Research team and reflexivity</b>	<b>16</b>	<b>14</b>	<b>14</b>	<b>10</b>	<b>14</b>	<b>14</b>
<b>Personal Characteristics (Researcher)</b>						
1. Interviewer/facilitator	2	0	0	0	0	0
2. Credentials	2	2	2	0	2	2
3. Occupation	2	2	2	2	2	2
4. Gender	2	2	2	0	2	2
5. Experience and training	2	2	2	2	2	2
<b>Relationship with participants</b>						
6. Relationship established	2	2	2	2	2	2
7. Participant knowledge of the interviewer	2	2	2	2	2	2
8. Interviewer characteristics	2	2	2	2	2	2
<b>Domain 2: Study design)</b>	<b>30</b>	<b>7</b>	<b>9</b>	<b>7</b>	<b>7</b>	<b>7</b>
<b>Theory framework</b>						
9. Methodological orientation and theory	2	2	2	2	2	2
<b>Participant selection</b>						
10 Sampling	2	0	0	0	0	0
11. Method of approach	2	0	0	0	0	0
12. Sample size	2	2	2	2	0	0
13. Non-participant	2	0	0	0	0	0
<b>Setting</b>						
14. Setting of data collection	2	0	2	0	2	2
15. Presence of non-participants	2	0	0	0	0	0
16. Description of sample	2	1	1	1	1	1
<b>Data collection</b>						
17. Interview guide	2	0	0	0	0	0
18. Repeat interviews	2	0	0	0	0	0
19. Audio/visual recording	2	0	0	0	0	0
20. Field notes	2	0	0	0	0	0
21. Duration	2	0	0	0	0	0
22. Data saturation	2	0	0	0	0	0
23. Transcripts returned	2	2	2	2	2	2



Item	Overall	Case 1	Case 2	Case 3	Case 4	Case 5
<b>Domain 3. Analysis and findings</b>	<b>18</b>	<b>10</b>	<b>10</b>	<b>8</b>	<b>10</b>	<b>8</b>
<b>Data analysis</b>						
24. Number of data coders	2	0	NA	NA	NA	NA
25. Description of the coding tree	2	0	NA	NA	NA	NA
26. Derivation of themes	2	2	2	2	2	2
27. Software	2	NA	NA	NA	NA	NA
28. Participant checking	2	0	NA	NA	NA	NA
<b>Reporting</b>						
29. Quotations presented	2	2	2	2	2	2
30. Data and findings consistent	2	2	2	2	2	2
31. Clarity of major themes	2	2	2	NA	2	2
32. Clarify of minor themes	2	2	2	2	2	NA

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## II. Quantitative Research

### Assessing the Quality of Randomized Controlled Trials in Acupressure for Women Health

#### A Systematic Review

Grace Hsiao-Hsuan Jen<sup>1</sup>, May Mei-Sheng Ku<sup>2</sup>, Mindy Szu-Min Peng<sup>1</sup>, Abbie Ting-Yu Lin<sup>1</sup>, Rene Wei-Jung Chang<sup>1</sup>, Wilson Wei-Chun Wang<sup>1</sup>, Sherry Yueh-Hsia Chiu<sup>3</sup>, Chen-Yang Hsu<sup>1</sup>, Lisa Li-Chen Hsieh<sup>4</sup>, Hsiu Hsi Chen<sup>1</sup>

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#### Abstract

##### *Background*

*The general application of the “Qi” practice though acupressure and cupping in orthodontic medicine of women health is hampered by the lacking of evidence in the efficacy. Although there are increasing clinical trials on this filed, the quality on the design, implementation, and reporting is barely addressed.*

##### *Material and Methods*

*A scoring system based on the guideline of Consolidated Standards of Reporting Trials (CONSORT) updated in 2010 first developed. Literatures on applying the acupressure and cupping for women health using a randomized controlled study design (RCT) were reviewed by the authors to ensure the relevance for the context of the study aim. The authors were trained and calibrated in the standard of scoring for each item. The total score and that normalized by the full score for each item and study were used to assess the absolute and relative quality, respectively.*

##### *Results*

*Among the 76 article searched from PubMed using the keyword of “acupressure” and “randomized controlled trial”, 13 of them were enrolled. Among the full total score of 66, the average score for the 13 articles was 39.8 (SD: 10.2) and the normalized rank was 60%.*

*The score for the category of “Title and Abstract”, “Study design”, “Study implementation”, “Results”, and “Discussion” was 5.5 (SD: 1.7, rank:69%), 10.0 (SD: 1.9, rank: 83%), 7.2 (SD: 3.6, rank: 45%), 9.7 (SD: 3.9, rank: 54%), and 6.6 (SD: 2.4, rank: 55%), respectively.*

## **Conclusion**

*The quality of the study on evaluating acupressure in the field of women health using RCT is modest with the rank reaching 60% of the requirement of CONSORT standard. The main drawback was in the category of “Study Implementation”, which calls for improvement in conducting further study.*

Keywords: Quantitative research, Systematic review, Randomized controlled study, CONSORT

## **Introduction**

The efficacy of the “Qi” practice through maneuvers such as acupressure in improving functionality and reducing disease symptoms have gained great attention in recent years (Au et al., 2015; Ernst et al., 2010). Due to the minimal risk of adverse effect compared with the use of chemicals such as pain control medications, anti-emetics, and sedatives, the applications of acupressure in the field of women health, especially for the treatment of dysmenorrhea and discomfort during labor including pain, nausea and vomit, and prolonged headache due to epidural procedures are of great interest. Considering the treatment of dysmenorrhea, the conventional approach in the field of orthodontic medicine including endocrinology and gynecological assessment to rule out the disease incurred by organic disease such as endometriosis. For subjects with primary dysmenorrhea the mainstay of treatment is pain control and hormonal therapy (Osayande et al., 2014; Wallace et al., 2010). However, the chronicity and periodical discomfort induces by dysmenorrhea is often a concern when these

medication therapies are provided to women. The treatment for women with the symptoms associated with pregnancy and labor is also faced with safety considerations (Wallis et al., 2012; Ebrahimi et al., 2010; Caton et al., 2002).

Although the reported efficacy is satisfactory compared with the minimal risk of adverse effect, the main criticism in generalization and wide application of these maneuvers to clinical practice is that there is a lacking of evidence basis. Facing with such criticism, there are also studies tempting to assess the efficacy of acupressure following the principle of evidence based medicine with the randomized controlled study design (RCT). However, the quality of these studies in terms of the standards of reporting RCT, namely CONSORT checklist (Schulz et al., 2010), was not systematically evaluated.

To have a better understanding on the current evidences on efficacy of applying acupressure for the issue of women health, we thus performed a systematic review to summarized the findings and also the process of reaching the results. In this study, we further aimed to quantify and

assess the extent of adherence to scientific principle for current evidences using a CONSORT-based scoring system.

## Material and Methods

Systematic review for randomized controlled trial on the efficacy of acupuncture on women health. The systematic review was conducted by searching the published articles from PubMed with the searching keywords of “acupuncture”, clinical trial of article types, and free full text in English until June, 2018. The flowchart of retrieving literature is illustrated in Figure 1. Two authors (HHJ and SMP) independently searched the articles with the same strategy. The final decision of study selection was further reviewed by LCH to confirm the relevancy of the study topic of acupuncture and women health. There were 13 articles related to gynecological health for evaluating the efficacy of acupuncture and six authors (HHJ, SMP, MSK, TYL, WRC, and WCW) independently retrieved data and evaluated the quality of evidence by scoring system with CONSORT checklist (Schulz et al., 2010) elaborated as follows.

Development of scoring system assessing the quality of reporting randomized controlled trial. Since all of these studies are randomized controlled trial (RCT), the quality of reporting was assessed by using a scoring system derived from the CONSORT checklist guideline. A three-point scoring system was developed ranging from 0, 1, and 2 representing the quality of “not addressed”, “addressed but with compromised quality”, and “fully addressed” for each item. Following the

updated version of CONSORT checklist proposed in 2001 (Moher et al.), a total of 33 items depicting the necessary structure of reporting a randomized controlled trial including abstract, introduction, material and methods, results, and discussion was used as the backbone of the development of the scoring system for assessing the quality of collected studies.

For the study with irrelevant item, a note of “not applicable” was filled. Excluding those not applicable items, it remains 33 items on average, so the total score is 66. For the purpose of calibrating the standard of scoring among the evaluators and validating the feasibility of using the scoring system on acupuncture studies, an article published by LCH (Hsieh et al., 2006) was used as standard material before the evaluation of collected literatures.

## Results

### Literatures on acupuncture and women health

Among these 13 articles, one conducted by Pouresmail et al. (2002) was to assess the efficacy of acupuncture and Ibuprofen on primary dysmenorrhea and shown there were no difference between this two interventions, but both could reduce pain grade in comparison with sham acupuncture (placebo); one conducted by Kashefi et al. (2011) was shown acupuncture had more efficient to women general health than sham acupuncture (placebo); and others were to explore the efficacy of acupuncture for pregnant women before/after childbirth and shown acupuncture could reduce morning sickness, nausea or vomiting, the intensity of pain, the

length of labor stages, the labor duration and so on and also increase the infants' Apgar scores (sTable 1).

### **Quality of reporting the efficacy of acupuncture on women health**

After scoring each studies to evaluate the quality of evidence with CONSORT checklist guideline, the mean of total score is 39.8 (range: 16-53; SD=10.2) and the mean of score are 5.5 (range: 4-8; SD=1.7), 10.0 (range: 7-12; SD=1.9), 7.2 (range: 2-14; SD=3.6), 9.7 (range: 6-15; SD=3.9), and 6.6 (range: 2-10; SD=2.4) in the "Title and Abstract", "Study design" (including trial design, participants, interventions, outcomes, and sample size), "Study implementation" (including randomisation, blinding, and statistical methods), "Results", and "Discussion", separately (Table 1). The most discrepancy was in the "Study implementation" and "Results".

For the studies related to the efficacy of acupuncture associated with women health and labor, the complete statement was in the "Study design" and "Results", and most studies did not mention about the "Randomisation" in the "Methods" section (including sequence generation, allocation concealment mechanism, and Implementation) (Table 2). The study with minimum score was conducted by Pour-esmail et al. (2002), and only specified clearly in the "Introduction" section. The other study with maximum score was conducted by Mafetoni RR et al. (2016), the only weakness is in the "Discussion" especially for the information on registration, available protocol, and funding. In addition, it can be observed that the arti-

cles published in the recent years had higher score, and those published before 2014 tended to not identify as a RCT in the title.

In Figure 2, the study published by LCH (Hsieh et al., 2006) using as benchmark got 91% of normalized quality score and other studies related to women health and labor had 60% of normalized quality score. The score in each section is 69% (5.5/8) in the "Abstract" section, 83% (10/12) in the "Study design", 45% (7.2/16) in the "Study implementation", 54% (9.7/18) in the "Results", and 55% (6.6/12) in the "Discussion".

### **Discussion**

By using a scoring system with the CONSORT checklist underpinning, we assessed and quantified the quality of current evidences on the efficacy of acupuncture for women health following the guideline of scientific principle. Among the 13 enrolled articles using the randomized controlled study design, an overall rank of 60% (39.8/66) was observed, showing a compromised result for current published article in this field. There is also a remarkable variation across studies with the standard deviation estimated as 10.2 for the overall score. Considering the scores of the aspect of "Title and Abstract", "Study Design", "Study Implementation", "Results", and "Discussion", the lowest rank was the "Study Implementation" (45% (7.2/16)), followed by the "Results" (54%, (9.7/18)) and "Discussion" (55%, (6.6/12)). The low rank in these three aspect demonstrating the aspect required for improvement in con-



ducting and reporting a randomized controlled study for providing the evidence on the efficacy of acupressure with scientific background.

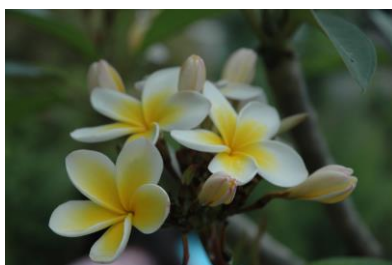
Our research focused on the application of acupressure for women health with randomized controlled trial study design. Given the increased attention on gathering scientific evidence for the Qi-based practice such as acupressure and its potential application on personalized medicine, the proposed scoring system can be extended to other study type such as observational study and include a wide range of research topic to be used as a first step for evidence synthesis.

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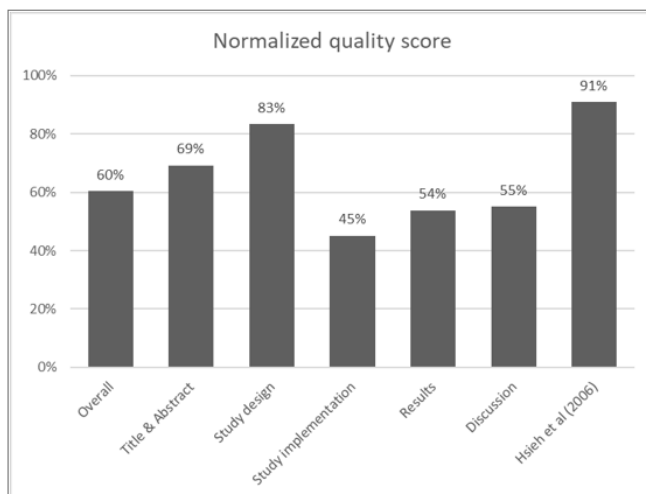
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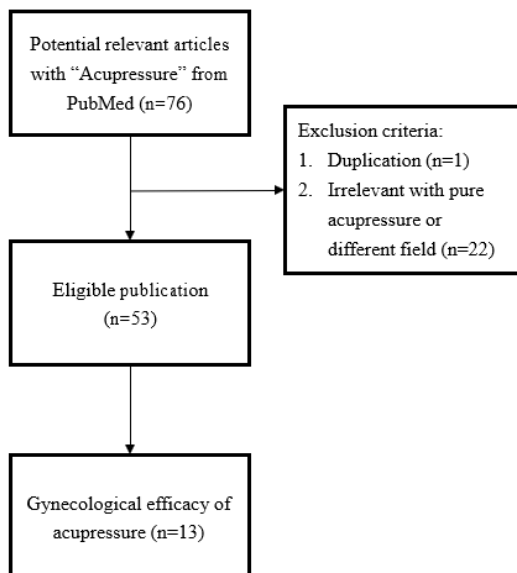


緬梔花(Frangipani)別名雞蛋花

西元 1645 年由荷蘭人引進台灣，為常見的盆栽作物，花期晚春至秋末。中醫認為有藥用價值；具豐富乳汁，有毒，外敷可醫治疥瘡、紅腫等症，但誤服可導致嘔吐、惡心、發燒、腹瀉、心跳加速、嘴唇紅腫。



**Figure 1.** Flowchart of retrieving literature



**Figure 2.** Normalized quality score by sections

**Table 1. Summary Results of Scoring System with CONSORT Checklist**

Study	Items (total score)					Discussion
	Overall Title & Abstract		Study design	Study Implantation	Results	
	(66)	(8)	(12)	(16)	(18)	(12)
1988, Dundee et al	38	4	9	3	7	5
2000, Harmon et al	43	4	12	7	14	6
2001, Steele et al	35	6	7	6	9	7
2002, Pouresmail et al	16	4	7	2	1	2
2011, Kashefi et al	49	6	11	9	13	10
2013, Noroozinia et al	31	4	7	7	9	4
2014, Akbarzadeh et al	34	4	11	4	7	8
2015, Batool et al	40	6	10	6	9	9
2015, MafetoniI et al	42	8	11	6	11	6
2016, Akbarzadeh et al	35	6	11	6	6	6
2016, Levett et al	52	8	11	12	13	8
2016, MafetoniI et al	53	8	11	14	15	5
2017, Abadi et al	50	4	12	12	12	10
Mean	39.8	5.5	10.0	7.2	9.7	6.6
SD	10.2	1.7	1.9	3.6	3.9	2.4

Study design : Trial design, participants, interventions, outcomes, and sample size

Study Implementation : Randomisation, blinding, and statistical methods

Table 2. CONSORT Checklist-based Scores in each items

Check-list	1988,	2000,	2001,	2002,	2011,	2013,	2014,	2015,	2015,	2016,	2016,	2016,	2017,
Items	Dundee et al	Harmon et al	Steele et al	Pouresmail et al	Kashefi et al	Noroozinia et al	Akbarzadeh et al	Batool et al	Mafetoni et al	Akbarzadeh M et al	Levett et al	Mafetoni et al	Abadi et al
1a	0	0	0	0	0	0	0	0	2	0	2	2	0
1b	0	0	2	0	2	0	0	2	2	2	2	2	0
2a	2	2	2	2	2	2	2	2	2	2	2	2	2
2b	2	2	2	2	2	2	2	2	2	2	2	2	2
3a	2	2	0	1	1	1	1	1	1	1	1	1	2
3b	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4a	1	2	2	2	2	2	2	2	2	2	2	2	2
4b	2	2	2	0	2	0	2	2	2	2	2	2	2
5	2	2	1	2	2	2	2	2	2	2	2	2	2
6a	2	2	2	2	2	2	2	2	2	2	2	2	2
6b	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7a	0	2	0	0	2	0	2	1	2	2	2	2	2
7b	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8a	0	0	2	0	0	0	0	2	0	2	2	2	2
8b	0	0	0	0	1	0	0	0	0	0	1	2	2
9	0	0	0	0	2	0	0	0	0	0	2	2	2
10	0	0	0	0	0	0	0	0	0	0	1	0	2
11a	1	1	0	0	0	1	0	0	2	0	2	2	2
11b	.	2	2	2	2	2	2	2	2	2	2	2	0
12a	2	2	2	NA	2	2	2	2	2	2	2	2	2
12b	NA	2	NA	NA	2	2	NA	NA	NA	NA	NA	2	NA
13a	2	2	2	0	2	2	2	2	2	1	2	2	2
13b	1	2	2	0	2	NA	NA	0	2	NA	2	2	2
14a	0	0	0	0	0	2	1	1	1	1	2	2	2
14b	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15	1	2	2	0	0	0	0	2	2	0	2	2	2
16	1	1	2	0	2	2	2	2	2	2	2	2	2
17a	0	2	1	1	2	1	1	1	1	1	2	1	2
17b	0	2	0	0	1	1	1	1	1	1	1	2	NA
18	NA	1	NA	NA	2	1	NA	NA	NA	NA	NA	2	NA
19	2	2	0	0	2	0	0	0	0	0	0	NA	NA
20	2	2	2	0	2	0	0	1	2	0	2	2	2
21	1	2	2	0	2	2	0	2	0	0	0	1	2
22	2	2	1	2	2	2	2	2	2	2	2	2	2
23	0	0	0	0	0	0	2	0	2	2	2	0	2
24	0	0	0	0	2	0	2	2	0	0	0	0	0
25	0	0	2	0	2	0	2	2	0	2	2	0	2
Total	38	43	35	16	49	31	34	40	42	35	52	53	50

\* NA is a “not applicable item” which is not scored.



sTable 1. Summary table for collected literatures of RCT on the efficacy of acupressure for women health

Author(Year)	Population	Study design/ Study periods	Intervention	Outcomes
Dundee et al (1988)	Patients attending the antenatal clinic at the Royal Maternity Hospital, Belfast	Randomized clinical trial	(1) Acupressure at P6 point, n=119 (2) Acupressure at a dummy point, n=112 (3) control group (no acupressure), n=119	(1) A highly significant ( $P<0.0005$ ) difference between the severity of sickness in the control group and those having P6 acupressure (2) A significant ( $P<0.01$ ) difference between the controls and the dummy acupressure series (3) Sickness was significantly less severe in patients practicing P6 acupressure than in those using a dummy point ( $P<0.0005$ ).
Harmon et al (2000)	Patients, ASA I, aged between 18 and 40 yr scheduled for elective Caesarean section were recruited.  <b>Exclusion criteria:</b> previous history of PONV or nausea and vomiting in the preceding 24 hrs, obesity, diabetes mellitus or previous experience of acupuncture or acupressure	Double-blind randomized clinical trial	(1) acupressure at the P6 point (on the anterior surface of the forearm between the tendons of flexor carpi radialis and palmaris longus, 2 'cun' from the distal wrist crease), n=47 (2) control : a point on the dorsal side of the right forearm, proximal to the distal wrist crease, n=47	(1) the use of acupressure reduced incidence of nausea or vomiting from 53%(25/47) to 23%(11/47) compared with placebo (95% confidence interval (CI) 0.34–0.25; $P$ 0.002) during the operation (2) the use of acupressure reduced incidence of nausea or vomiting from 66%(31/47) to 36%(17/47) compared with placebo (95% CI 0.34–0.19; $P$ 0.003) after the operation

Author(Year)	Population	Study design/ Study periods	Intervention	Outcomes
Steele et al (2001)	A convenience sample of pregnant women in their 1st trimester was recruited on a voluntary basis in 17 obstetric/gynecology offices and clinics in southern Michigan. Criteria for participation were (a) self-report of one or more episodes of pregnancy-related nausea and/or vomiting (b) less than 13 weeks pregnant (c) able to read and speak English	Quasi-experimental design (posttest-only and posttest-repeated measure)	(1) intervention : applied Sea-Bands with acupressure buttons, n=68 (2) control : applied the Sea-Bands without acupressure buttons, n=42	(1) The treatment group had significantly less frequency and severity of nausea and vomiting of pregnancy while wearing the Sea-Bands than did the placebo group. (2) The treatment group also had significantly less frequency and severity of nausea.

Author(Year)	Population	Study design/ Study periods	Intervention	Outcomes
Pouresmail et al (2002)	216 female high school students Inclusion: aged between 14 to 18 yrs, had regular menstruation with dysmenorrhea in all cyclesm pain being experienced 24 hours before or during menstruation bleeding and relieved 72 hours later, single and virgin, experiencing menarche for at least one year, and did not have any special diet, with no established gastrointestinal, renal, hepatic, respiratory or hematological disorders, and any hormonal drugs specially OCOs were not used and no severe sensitivity to NSAIDs	Randomized clinical trial	1. Acupressure 2. Ibuprofen 3. sham acupressure (placebo)	1. Significant differences before and after treatment in all the three groups ( $P<0.01$ ) 2. After the therapy, the severity of primary dysmenorrhea was reduced to grade 0 in 50% of the participants in the acupressure group, 36.1% in the Ibuprofen group, and 18.1% in the placebo group. 3. Before the therapy, the severity of primary dysmenorrhea at grade III was 38.9% in the acupressure group, 56.9% in the Ibuprofen group, and 38.9% in the placebo group. And after the therapy, none of the participants had such grade of severity in the acupressure group, and 1.4% in the Ibuprofen group, and 18.1% in the placebo group. 4. There were significant statistical differences among them ( $P=0.0237$ ), but no significant differences between the acupressure and Ibuprofen groups before and after the therapy.

Author(Year)	Population	Study design/ Study periods	Intervention	Outcomes
Kashefi et al (2011)	<p>86 university students</p> <p>Inclusive criteria : (1) having regular menstrual cycles (3–8 days of menstruation with intervals of 22–35 days); (2) not taking any medication such as hormonal contraceptives, antipsychotics, antidepressants, vitamins; (3) not suffering from any psychiatric disorder, such as major depressive disorder, panic disorder, or epilepsy; and (4) being a resident at the university's dormitory.</p> <p>Exclusion criteria were (1) acquiring General Health Questionnaire (GHQ) scores more than 23; (2) suffering from any kind of psychiatric disorders; (3) consumption of any kind of antidepressants, tranquilizers, and psychiatric medicine; (4) students studying physiotherapy. Individuals who did not meet inclusion criteria were excluded from the study at this stage.</p>	Randomized clinical trial	<p>1. Acupressure (Sanyinjiao point)</p> <p>2. sham acupressure (placebo)</p>	<p>1. Acupressure was more effective than sham pressure.</p> <p>2. The general health status of the participants changed much more after the second month in both the acupressure intervention and the sham pressure group.</p>

Author(Year)	Population	Study design/ Study periods	Intervention	Outcomes
Noroozinia et al. (2013)	152 ASA class I or II pregnant women who were candidate for elective C/S under spinal anesthesia Exclusion criteria: a past history of PONV or motion sickness, any nausea or vomiting in 24 hrs prior to C/S, patients who required i.v. opioids because of complicated or inappropriate spinal anesthesia, patients who have undergone emergent C/S because of probable high-risk vaginal delivery, obese patients, patients with previous experience of acupuncture or acupressure.	Double-blind Randomized clinical trial	(1) Intervention group: Wearing band had a button on its internal surface, right on the Pericardium 6 (Nei-Guan) point, n=76 (2) Control group: Wearing band lacking the button, n=76	(1) Acupressure as a safe complement to the more traditional approach of using drugs to prevent and/or relieve nausea and vomiting in the Cesarean section (C/S) under spinal anesthesia. (2) Significant differences in the incidence of the post-operative nausea and vomiting were found between the acupressure and control groups, with a reduction in the incidence rate of nausea from 35.5% to 13.2%.
Akbarzadeh et al. (2014)	150 patients Inclusion criteria: 18–35 years of age, term pregnancy, singleton pregnancy, and healthy fetal membranes, no history of medical, surgical, or mental problems and had faced no special problems during pregnancy.	Randomized clinical trial	(1) Supportive care group, n=50 (2) Acupressure group, n=50 (3) Control group, n=50	Maternal supportive care and acupressure during labor reduced the intensity of pain and improved the delivery outcomes.



Author(Year)	Population	Study design/ Study periods	Intervention	Outcomes
	288 post-term pregnancy patients who referred to consulting clinic at Ali- Ibn- Abi			<b>Percentage of spontaneous initiation of labor</b> Women who have used Shiatsu technique
Batool et al. (2015)	-Talib Hospital, in Zahedan-Iran Inclusion criteria: reliable EDC, post-term pregnancy, non-consequence pregnancy, presentation of cephalic. Exclusion criteria: cervix dilatation over three centimeter, active labor, and premature rupture of membranes, previous cesarean and pathology in mother or neonate.	Randomized clinical trial	(1) Intervention group: shiatsu technique which was conducted for 30s on three points GB21, L14 and SP6, n=144 (2) Control group: routine procedure, n=144	were significantly more likely to have spontaneous labour than those women who did not.  Intervention vs. Control (1) Spontaneous initiation of labor: 82(56.9%) vs. 12(8.3%) (2) Mean labor initiation duration after the first technique: 25.5 h vs. 9.9h (3) Mean labor stages: 15.4h vs. 13.2h
Mafetoni et al. (2015)	156 patients Inclusion criteria: any age or parity, from 37 weeks of gestation in spontaneous, induced, and/or augmented labor with dilation $\geq 4$ cm, 2-3 contractions every 10 min, with undamaged skin at the bilateral SP6 points, and whose fetus was alive in cephalic vertex position with good vital signs. Exclusion criteria: pre-eclampsia, placenta previa, two or more previous cesarean	Double-blind randomized clinical trial	(1) SP6 acupressure group, n=52 (2) Touch (placebo) group, n=52 (3) Control group, n=52	<b>(1)Labor duration (min)</b> The SP6 acupressure may shorten the labor duration.  <b>(2)Type of delivery</b> The SP6 acupressure point did not affect the cesarean section rate.

Author(Year)	Population	Study design/ Study periods	Intervention	Outcomes
	sections, or immediate indication for this mode of delivery.			
	150 patients Inclusion criteria: being primiparous or multiparous, being physically and mentally healthy, having at least diploma, being 18-35 years old, singleton pregnancy, cephalic presentation, gestational age of 37-42 weeks, 4cm dilation, and having at least 2-3 uterine contractions in 10 minutes. Exclusion criteria: with preeclampsia, induced labor, non-cephalic presentation, cephalopelvic disproportion, multiple birth, and those who smoked, suffered from underlying diseases, and were unwilling to take part in the study	Randomized clinical trial	(1) Supportive care group, n=50  (2) Acupressure group, n=50 (3) Control group, n=50	<b>Labor Length</b> Continuous support and acupressure could reduce the length of labor stages.  <b>Infant's Apgar Score</b> Continuous support and acupressure could increase the infants' Apgar scores.

Akbarzadeh et al. (2016)

Author(Year)	Population	Study design/ Study periods	Intervention	Outcomes
				<b>(1)Primary outcome: Rate of analgesic epidural use</b> The Complementary Therapies for Labour and Birth study protocol significantly reduced epidural use. RR=0.37 (95% CI = 0.25 to 0.55), $p \leq 0.001$ . <b>(2)Secondary outcomes : onset of labour, augmentation, mode of birth, newborn outcomes</b> The study group participants reported a reduced rate of
Levett et al.	176 patients Inclusion criteria: having a singleton pregnancy with a cephalic presentation, low risk , first-time mothers and knowledge of sufficient English. factors, being enrolled or intending to enrol in a 'continuity of care' midwifery programme or in a private birth preparation course.	Open-label Assessor blind clinical trial	(1) study group: received the Complementary Therapies for Labour and Birth (CTLB) protocol in addition to usual care, n=89 (2) control group: received usual care alone, n=87	1) augmentation (RR=0.54 (95% CI = 0.38 to 0.75), $p=0.001$ ) 2) caesarean section (RR=0.52 (95% CI = 0.31 to 0.87), $p=0.017$ ) 3) length of second stage (mean difference= -0.32 (95% CI = -0.64 to 0.002), $p=0.05$ ) 4) any perineal trauma (0.88 (95% CI = 0.78 to 0.98), $p=0.02$ ) 5) resuscitation of the newborn (RR=0.47 (95% CI 0.25 to 0.87), $p \leq 0.015$ ) There were no statistically significant differences found in 1) spontaneous onset of labour, pethidine use

Author(Year)	Population	Study design/ Study periods	Intervention	Outcomes
				2) rate of postpartum haemorrhage 3) major perineal trauma (third and fourth degree tears/episiotomy) 4) admission to special care nursery/neonatal intensive care unit (p=0.25).
Mafetoni et al. (2016)	156 pregnant women were randomised into three groups <b>Inclusion</b> criteria: $\geq 37$ week/s, cervical dilation $\geq 4$ cm, two or more contractions in 10 mins. <b>Exclusion</b> criteria: serious preeclampsia, placenta previa, immediate indication of cesarean, dilations at $\geq 8$ cm and those that used analgesics for less than six hours from the study admission time.	Randomized clinical trial	(1) Acupressure group: San-jiao point (SP6), received deep pressure ( $\pm 5$ kg), n=52 (2) Touch group (TG): placebo, received a superficial touch ( $\pm 100$ g), n=52 (3) Control group, n=52	VAS before the treatment (N=52 for each group): average (dp) SP6 7.4 (1.9) / Touch 7.1 (2.4) / Control 7.9 (1.9) VAS 20 mins of the treatment (N=52 for each group): average (dp) SP6 5.9 (2.3) / Touch 7.6 (2.5) / Control 8.5 (1.9) VAS 60 mins of the treatment: average (dp) SP6 (N=43) 6.5 (2.2) / Touch (N=47) 8.1 (2.3) / Control (N=44) 8.8 (1.8)  Perception of the main (20 mins): n

Author(Year)	Population	Study design/ Study periods	Intervention	Outcomes
				(Alleviated, No change, Worse) SP6 (34,17,1) / Touch (7,22,23) / Control (1,24,27) Perception of the main (60 mins): n (Alleviated, No change, Worse) SP6 (9,26,8) / Touch (4,12,31) / Control (0,14,30)
Abadi et al. (2017)	<p>120 patients who were candidates for cesarean section.</p> <p><b>Exclusion</b> criteria: postoperative use of acute and chronic opioid, age older than 45 years, received spinal analgesia during surgery, having preexisting airways and peripheral vascular disease, patients who required stomas, underwent blood loss (&gt;1000 mL) and needed transfusion, had thyroid disorders or nervous, muscular, and hepatic diseases or developed intraoperative problems or complications during cesarean section, including hysterectomy and abnormal bleeding were excluded.</p>	Randomized controlled trial	<p>(1) Acupressure group: the acupoints including Zusanli (stomach meridian ST-36) and Hegu (large intestine meridian IL-4), n=60</p> <p>(2) Control group (no acupressure): received conventional medical care, n=60</p>	<p>Acupressure v.s. No acupressure</p> <p>(a) the time to first defecation (h): 25.9±5.9 v.s. 29.1±10 (p=0.311)</p> <p>(b) time to first passage of flatus (h): 17.7±6 v.s. 25.75±9.1 (p&lt;0.001)</p> <p>(c) time to presence of bowel sounds (h): 6.2±1.6 v.s. 12.6±2.4 (p&lt;0.001)</p> <p>(d) duration of postoperative bed rest (h): 14.2±4 v.s. 16.2±5.1 (p=0.005)</p>

## Focus

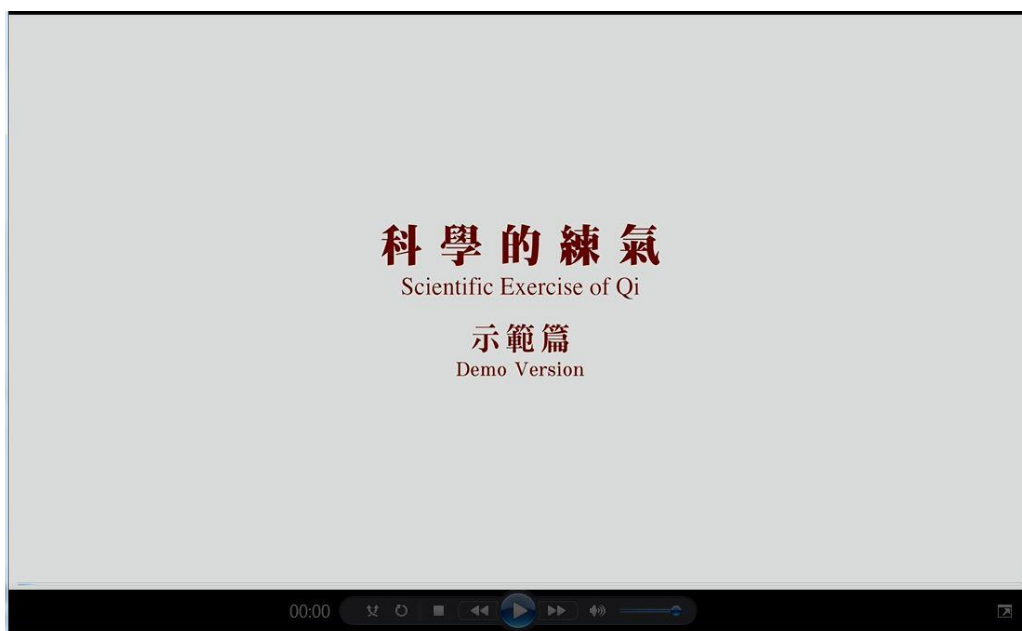
### I. Video Scientific Exercise of Qi

Please find the video for “15 key words for Qi practicing” in the following address.

<https://sites.google.com/view/acataiwan/neomedicine/view-videos>



## 練氣十五字訣功法





## II. 練氣養生的現代醫學生理機制

謝麗貞

### 摘要

練氣養生的效益若能對其生理機制有所瞭解則更具意義。《難經》中對原氣的闡釋，指出人體中對外和對內的兩套自動運作的動力系統是三焦和心主別脈。三焦即上焦、中焦及下焦，主掌呼吸轉化成充氧血；攝取水穀汲取營養成份；及過濾血液、排除廢物及調節體內生理環境的恆定，是人體中氣縱行的三個既獨立又共同運作的大系統。而心主別脈則是心臟電生理傳導系統，其心搏律動讓三焦的宗、營、衛三氣得以經血液循環系統送達到全身。

練氣正是以意識控制呼吸，透過上焦的效應進而影響中焦及下焦，產生提高生理效率的正向回饋；其連繫心主別脈藉循環系統，以促進機體更新、修復和生殖的功能，達到保健養生延年益壽的目的。此即練氣養生的現代醫學生理機制。

練氣養生是中國傳統預防保健醫學的重要內容之一，在中國最早的醫學典籍《皇帝內經》的《素問·上古天真論篇第一》中(楊維傑，1990:2; 程士德，2004:563)，醫聖岐伯曰：「上古之人，其知道者，法於陰陽，和於術數，飲食有節，起居有常，不妄作勞，故能形與神俱，而盡終其天年，度百歲乃去。」可見上古的人，就已經知道練氣養生之法。因此學習天道陰陽之術以練氣養生，可以像上古之人一樣得到健康長壽不會衰老，正是我們致力於養生道術者所追求的目標。

練氣養生自古以來就有不同的名稱：如呼吸、吐納、導引、煉氣、胎息、靜坐、坐禪、返觀等等。凡長期持續有規律的身體運動，其練習技巧只要和呼吸、吐納、導引有關聯者都和氣有關，現在一般都通稱為「練氣功」。不過當論及其對身體機能的影響效應時，則可再分為：練氣、練功和練氣功等，其各有不同的定義和目的。在這裡我們只討論練氣養生的生理機

制。

練氣中的氣，並不是指自然界中的空氣，也不是指由鼻子吸入到肺中的氧氣，而是已經在身體內轉化成為具有生物活性狀態的氣，其隨時準備和體內的血液、細胞、組織、器官、系統等產生各種生化反應，也是隨時為身體提供能量的氣。練氣主要是自我身心的鍛鍊，經過調身、調息、調心的呼吸功法，以達到延年益壽、祛疾防病的健康目的。唯當練氣嫺熟後，可以隨意駕馭令氣去作功，方始宜稱為氣功。歷代的中醫學家頻頻闡釋練氣養生的醫學理論基礎，包括：中國傳統醫學的理論、陰陽五行的分類、臟象以及經脈的表現、甚至採用易經象術的分析，去解釋氣運作的道理。因此闡釋多偏重在精神及心理層面，認為精、氣、神是人體的三寶，可以提升人體身、心的層次。所以自古以來，練氣多著重於調神、調息與行氣修持的技巧，以求發揮自身體內的潛能，而對於究竟是哪些臟腑在為氣運作，則少有著

墨。

練氣做為養生保健預防治療的方法，其效益逐漸得到現代醫學臨床實驗研究的證實。近五十年來，更有許多用現代化的科學儀器、設備、檢驗，去研究練氣和氣的作用，企圖以其所影響的生理效應，來闡明練氣和氣的科學及醫學上的理論基礎。實證研究包括了有關練氣或氣對人體呼吸生理、血液循環生理和神經生理上的效應，其中最明顯的變化是呼吸生理上的效應。隨著練功者在氣功態下的定、靜程度，呼吸週期會變長，節律會變慢，幅度會加深，進出氣的流程會呈悠、慢、清、勻、柔和，並顯示出明顯的正向健康效益，但是對其生理機制仍未能得到確認，依舊很難得到科學界普遍的接受。如此也令許多民眾裹足不前，產生質疑，這也是一種莫大的損失。

因此去明確地指出練氣影響的器官及其生理機制，變得十分重要。從中醫學典籍《難經》中的第八難：「諸十二經脈者，皆係於生氣之原。所謂生氣之原者，謂十二經之根本也，……此五臟六腑之本，十二經脈之根，呼吸之門，三焦之原，……。」第六十六難：「人之生命也，十二經之根本也，故名曰原。……原者，三焦之尊號也。」第二十五難說：「有十二經，五臟六腑十一耳，其一經者，何等經也？然：一經者，手少陰與心主別脈也，心主與三焦為表裏，俱有名而無形，故言經有十二也。」第三十八難說：「臟唯有五，腑獨有六者，何也？然：所以腑有六者，謂三焦也，有原氣之別使焉，主持諸氣，有名而無形，其經屬手少陽，此外腑也，故言腑有六焉。」第六十六難又說：「……三焦者，原氣之別使也，主通行三

氣，經歷於五臟六腑。原者，三焦之尊號也。」我們得知三焦就是主持諸氣的腑，其相聯繫的臟就是心主別脈。而《難經》的第三十一難：「三焦者，何稟？何生？何始？何終？其治常在何許？可曉以不？然：三焦者，水穀之道路，氣之所終始也。上焦者，在心下鬲（膈），在胃上口，主內而不出，其治在臆中，玉堂下一寸六分，直兩乳間陷者是。中焦者，在胃中脘，不上不下，主腐熟水穀，其治在臍傍。下焦者，當膀胱上口，主分別清濁，主出而不內，以傳道也，其治在臍下一寸。故名曰三焦，其府在氣衝。」（黃維三，1996:354-388；元·滑壽，1981:10-64）則告訴我們三焦在人體中的相對位置、屬性、功能特性、和病變治療之穴。

根據以上資料，在現代醫學解剖生理學（樓迎統總編譯，2008），《探索〈難經〉的奧秘—三焦、氣與氣功的生理機制》中（謝麗貞，2010:199-234），我們找到了相對應三焦的三個功能系統。三焦即包括：（1）上焦：呼吸中樞的調節系統，主要作用在橫隔膜。其呼吸空氣供應人體血中氧氣，以產生的宗氣；（2）中焦：胃的排空及「幽門幫浦」調節系統，主要作用在胃中脘。其將人體所攝入的水穀搗成食糜，消化分解營養要素，以供應人體的營氣；以及（3）下焦：腎元的「過濾、排尿及恆定調節系統」，主要作用在腎元。其過濾淨化血液、排除代謝物、維持體內環境的恆定，即為保護人體的衛氣。三焦雖然是分成三個獨立運作的系統，各司其職，綜管人體上、中、下三大生理功能，但此三部分也是互相依存，共同協調運作，而形成了縱貫人體的「氣的縱行運轉」大系統。三焦的臨床功能就是：呼吸氧氣，攝

取飲食，經血液供給宗、營、衛三氣到全身上下各細胞、組織和器官去應用；同時過濾淨化血液，排除水份及代謝廢棄物至體外，維持身體內在環境的恆定，以維繫人初生的原氣，使生命活動得以持續不斷。而和三焦有臟腑關係的心主別脈，則是心臟的電生理傳導系統，作用在心肌細胞上。其自動產生電位衝動，自成一個獨立的核心動力體系。心主別脈和心臟臟體本身緊密結合成為一體，其心搏律動令心血管循環系統得到推動力，將血液及其中各種人體必需的氧氣、營養素、傳導間質、激素、酵素等等，運送到身體的相關部份；同時再回收各種代謝廢棄物，送至下焦腎元去過濾以排除體外，來保持體內恆常的生理環境。若去除了這個動力系統——心臟不跳了——血液循環必然立即停滯無法運行，人體就因此而喪失活力及生命。

三焦系統配合著心主別脈，在血液循環輸送及回收過程中，隨時將淨化、充氧和含養分的血液送達身體各部位，同時回收代謝廢物，成為一個完整的氣血周行全身的網路，以維持人體內在環境的恆定，使生理機能得以正常運作。這就是《難經》所以稱三焦為「原氣的別使」，取代人胚胎之初始在母體中所接受的原氣，而在出生後人體得以自立自足，別立後天氣血補充和淨化的機制。換句話說，三焦和心主別脈是人體的兩套自動動力系統，一與外部相通，一在內部，兩者共同主宰人體生命運行的推進力。前者以上、中、下分三支系統，分別負責以鼻、口及肛門、尿道與外界溝通，用以取得氧氣、營養和排泄；後者和心臟緊密結合，成為心血管循環自發動力的核心。兩套系統互相連繫、互相影響，成為完整的全身網狀動力迴路——

一主掌氣、一主掌血；一旦迴路受阻，或產生病變，就必須從動力系統去修理，而不是單純自組織結構去修補。

實證醫學研究氣的生理效應，正是三焦與心主別脈的生理功能和作用。練氣所產生的保健養生作用，也正就是透過三焦的控制系統，以產生正向調解回饋去提高效率，其再連繫心主別脈，促進血液循環，完成具有效益的機體更新、修復和生殖的功能，自然就可以達到保健養生延年益壽的目的了。

人體本來就是一個全自動運作的有機體，不容任意更動改變。但是，呼吸運動却可在有限度的範圍內，讓人用意識來改變其形態，增加呼吸的效益。練氣正是利用這個特性，講究以特殊呼吸的功法，以達到特定的功效。所以，一般的呼吸運動並沒有保健養生的功能。而練氣的啟始動作都是以意識來控制呼吸，也就是自上焦開始去啟動三焦系統，進而影響心主別脈去促動血液循環系統，才能達到特定的保健養生的功效。換句話說，練氣時須循特定的呼吸功法，經上焦而中焦而下焦，形成三焦的宗、營、衛三氣，再連繫心主別脈去促進周身血液循環，方為有效。上焦氣經呼吸中樞的調節系統，使呼吸具更高效率以增加血中含氧量，轉化成活性形態的氣；中焦氣經胃排空幽門幫浦系統，讓消化道汲取更精華有用的營養素；下焦氣讓腎元更有效率地運作其過濾、排尿及恆定調節系統，維持體內更精純恆定的環境，讓人體的生理更有效率地運作，這才是練氣養生使人長青的現代醫學生理機制。

隨著人們對健康主觀意識的高漲，練氣的功效益加受到大眾的重視。對於氣結



合運動如：呼吸吐納、太極練氣等，以及氣結合穴道治療如：氣功穴壓治療、針灸等，在預防保健醫療上效益的研究，也顯現出有益於人體健康的結果。許多科學家也正進行多元的研究，提供我們許多有關氣的特性、本質和影響人體生理變化的訊息。這些一方面確定了練氣養生的實際效果，一方面提供了許多相關生理變化的資料。所有導致這些生理的變化，必須回歸到人體醫學的機制，只有自現代醫學生理學來解釋之，才可以真正證實練氣養生的效果，為大家所信服。

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## 練氣訓練與學習



## II. Physiological Mechanism of Practicing Qi for Health Preserving

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### Abstract

*It would be very valuable if the underlying physiological mechanism accounting for why breathing exercise for health preserving is beneficial to human body can be elucidated.*

*The origin of “Qi” defined by “Nan Jing” expounds that Sang Jaio together with pericardium meridian play an important role in the regulation of human body in the face of exogenous and endogenous environment.*

*Triple Burners, namely the upper, the middle, and the lower Sang Jaio, compose a systematic but independent machine operated with each other for breath and circulation of human body. The upper Jaio makes contributions to supplying blood abundant with oxygen through breathing. The middle Jaio is conducive to the intake of water and nutrients. The lower Jaio is responsible for the filtration of blood by eliminating wastes and re-absorbing nutrients so as to render body system homeostasis.*

*Pericardium Meridian are composed of cardiac physiological electric conduction system. The heart pulse triggers the release of three varieties of “Chi Qi”, regulating, nurturing, and protecting into blood that circulates throughout the body.*

*Breathing exercise is to regulate breathing with conscious determination through a series of influences from the upper Jaio to the lower Jaio in order to enhance positive efficient physiological feedback, which facilitates the renewal, rehabilitation, and regeneration of the tissues in human body through the circulation of aorta and pulmonary artery.*

Breathing exercise for nurture is one of important contexts in the domain of traditional Chinese medicine (TCM) in preventive care. From the Chinese ancient medicine paradigm [Huangdi Nei Jing]: Ancient Naïve Plain Questions 1, the sage physician named as the wise remote antiquity have already known that one can be perpetual and live longer with good quality of life provided that rules follow solar and lunar system, mediation through prophet, temperate diet, regular life, routine practice with-

out overwork. It is obvious that the ancient people has already known the rules of breathing exercise for nurture. It is therefore reasoned that to be at home in breathing exercise for nurture under the context of solar and lunar philosophy enable one to be in pursuit of longevity seen in the ancient people. It is the ultimate goal of devoting ourselves to develop of maneuvering healthy.

There are a variety of terminologies used for breathing control for health pre-

serving, breathing, spitting, Daoin conduction exercise, practicing, meditation, reflection and so on.

As long as it makes a routine to keep regular physical exercise all the skills to practice like breathing, spitting, conduction with exercise is pertaining to Qi and is often called “Qigong practice”.

When it comes to its impact on human body function, there are three types, practicing ʼ Liangong, Practice qigong with various definitions and objectives. We only focus on the physiological mechanism responsible for health preserving with Qi. The Qi acquired from practicing (doing exercise with breathing) is not air by nature and nor is oxygen in the lung transported from nose via inhalation but it has been converted into the Qi in active biological state that is prepared to spawn ??? biochemical reaction in contact with blood, cell, tissue, fluid, organ, and system in human body and also provide the energy of Qi for human body in any time.

Practicing is to do self-body-mind training by using three breathing techniques, in order to have longevity and prevent and eliminate disease.

Only when one is familiar with practicing so as to produce energy at discretion is Qigong called. TCM therapists used to use a set of theories of medicine on breathing for health preserving, including TCM theory, the classification of yin-yang and five elements (metal, water, wood, fire, and earth), visceral and meridian manifestation and Yi Jing, to expound the law of Qi operation. Therefore, most of exemplification has underscored spiritual and mental aspects that is entertained by three treasures

of spirit, Qi, and mind for enhancing physical and spiritual body. The emphasis of practicing is placed on practice in order to make use of self-empowered “Chi Qi”. It is barely addressed that what on earth is which visceral part is responsible for the operation of Qi.

The efficacy of practicing for health preserving has gained attention in evidence-based clinical and experimental studies. Over the past five decades, a number of modern advanced technology, facility, equipment, and test were developed to throw light on why practicing can work in order to expound scientific basis of practicing and Chi Qi using its physiological influences. Evidence-based studies consists of the effect of practicing or Chi Qi on pulmonary physiology, blood circulation of physiology, and neurological physiology. Among these physiological responses, respiratory physiological change is the most salient. According to the extent of peace and serenity of practicing, the respiratory cycle can be lengthened and the rhythm becomes slow, amplitude, becomes enlarged. The influx of Chi Qi shows relaxed, slow, vivid, gentle so as to produce the manifested health benefit. However, the underlying physiological mechanism is still not clear and difficult to accept by scientists. This also renders many folk people hesitant and confused so as not to do practicing.

It becomes very important to make it explicit to elucidate the organ and the physiological mechanism affected by practicing. The eighth “Nan” in Nan-Jing, one of classical Chinese books, says those twelve meridians are derived from the origin of generating Qi. The origin of Qi generation is the fundamentals of these



twelve Meridians..., the fundamentals of five viscera and six bowels, the root of twelve meridians, the portal of respiration, and the origin of San Jaio.

The 66th “Nan” says twelve meridians is the vital life of body, which is called the nascent, leading to the so-called Sang Jaio “. The 25th “Nan” says there are twelve meridians corresponding to eleven concrete organs (five viscera and six bowels) and the one called Heart Meridian of Hand-shaoyin, which is coupled with Sang Jaio to compose inner and outer system. The 38th “Nan” says we have only five viscera and six bowels. What does mean by that? Having six bowels can be entitled as Shang Jaio. Heart Meridian of Hand-shaoyin is named but amorphic. It is the surrogate of original Chi Qi for being in charge of all Chi Qi together. It represents outer systems of six bowels and renders five organs compose six bowels together with Sang Jaio that is the original Qi and in charge of the whole body.

The 66th “Nan” mentions that Sang Jaio is the delegate of original Qi to channel through three Qi and transverse through five viscera and six inner organs. Sang Jaio is therefore the origin of Qi. We believe Sang Jaio is in charge of the function of five inner organ in connection with viscera through the link with Pericardium Meridian. The 31th “Nan” in Nang Jin indicates (What is Sang Jaio?) (where to be produced? where to begin? where to end? How to govern? whether to have? It represents the road to basic need and the end to Qi. The upper Sang Jaio is located beneath epicardium and above stomach, input but no output, controlled point just at sternum, just one inch below belly lying between two breast inch below. The middle Sang Jaio is

located at the body of stomach and is the degradation of water and grain with the controlled point at limbus. The lower Sang Jaio is at orifice of bladder with the function of cleaning out without any intake.

Triple burner consists of Upper Jiao, which is the regulation system of respiratory center at diagram, which supplies oxygen in the blood through expiration to generate Qi through the body. Middle Jiao, which is the evacuation of stomach and the regulation of stomach gate pump at the body of stomach so as to digest the intake of nutrient into “food mixture that is a mixture of water with grained food for generating Qi for maintaining body. Lower Jiao is pertaining to the function of nephron, that is responsible for the regulation of filtration, the excretion of urine, and homeostasis in order to generate Qi for protecting body.

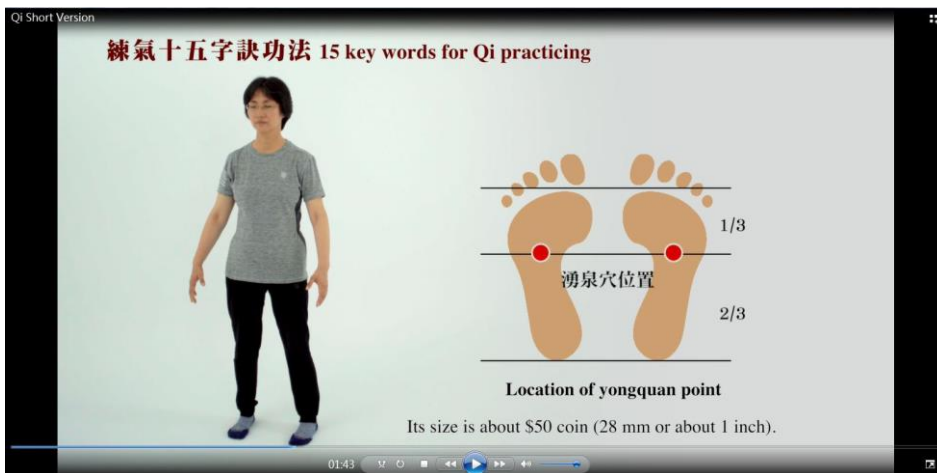
Despite three independent systems of San Jaio with each role played on its own in upper, middle, and lower physiological function, they were correlated and coordinated to channel Qi through the whole body. The clinical function of Sang Jaio is to supply oxygen and nutrients through blood to render “Qi” regulate, nurture, and protect body from cell, through tissue, to organ, ending up with the renewal of Qi and the removal of wastes to maintain homeostasis in the body and render the function of physiology operated. Sang Jaio is the exactly so-called the supplant of original Chi Qi that is originated from the embryo of mother to become independent and self-governed though acquired regulation system. In other words, Sang Jaio and Epicardium Meridian are two self-pumped systems, responsible for inner and outer system functioning with other for life. The

former is divided into three parts, responsible for nose, mouth, anus, and urinary for outside communication to get oxygen, nutrient, and secretion. The latter is closely connected to heart to govern blood regulation. Two systems are reciprocally influenced and connected as network to dominate Chi Qi and Blood, respectively. Once the circuit is stagnated or there is the lesion it is indispensable to get repaired from two systems rather than tissue structure.

Epicardium Meridian that is related to Sang Jaio through five viscera and six bowels is the electric physiological conduction system of heart functioned by cardiac cell. The automatic electric impulse becomes a vital and independent power system. The pulse propelled by the epicardium and heart tied together as an a union becomes a propel for prompting blood to circulate through the body in order to provide oxygen, nutri-

ent, hormone, enzyme, inter-connective meridian, and collect and filter wastes through kidney.

The rising subjective conjecture on health held by people, and the efficacy of practicing has gained attention. There are numerous studies addressing how Chi Qi is conducive to human health by combing it with exercise (such as Tai-Zi and spitting), practicing, acupuncture, and acupuncture. A number of scientists have been conducting multi-disciplinary studies, which reveal the characteristics and information affecting physiological change of human body. These not only corroborate actual effectiveness of practicing for health preserving but also provide data on relevant physiological changes. All causes accounting for physiological change have biological plausibility consistent with the mechanism of physiology.



## Focus

## III. 氣功與中、西武術差異淺釋

郭育丞、鄭銘章

## 前言

本文為作者對氣功與武術的觀察，文中對武術之概念，主要來自於「基礎動作訓練學院」(Foundation Movement Academy, FMA)，筆者目前仍在 FMA 練習武術；氣功方面知識則來自謝麗貞醫師的指導，其他則是自身經驗、個人看法，故稱之為「淺釋」，但會持續實證，並以科學觀點學習並解析武術和氣功。

筆者 18 歲之前在氣功、武術上是一張白紙。18 歲之後，陸續學習柔道、巴西柔術、散打搏擊、跆拳道、國術及後來的氣功。由於筆者並非從小學習某種武術、或師承某派功法，所以未被特定信念制約，較能無框架地自由探索、思考，或許這正是本文價值所在。

## 談鬆

## 一、鬆的定義和區別

鬆乃指身、心皆鬆，煉氣要訣就是一個「鬆」字，而「鬆」同樣也主宰著武術。內功（煉氣）可分為「鬆」（身心皆鬆）、「正確身體結構」兩部份。外功（武術格鬥）可分為「鬆」、「正確身體結構」、「力量」三部分。內功較能練到「鬆」，而外功較能練到「正確身體結構」，因此內功、外功形成一個「正回饋」(positive feedback)。註 1

就單練內功（煉氣）而言，「正確身體結構」較難理解，而外功（武術）較好查覺。因為身體結構不夠正確，承受力量時將無法使用體重、全身力量去抗衡。對單練外功而言，較難理解「鬆」，因為在出力時還要放鬆，是非常難理解的概念；而在內功，鬆就好體會多了，站好練氣標準態，若自身不夠鬆，會感覺氣滯，一旦放鬆，氣即順利的流通。

## 二、鬆的重要性

## 1. 從煉氣方面談「鬆」

若以一個字貫穿氣功，那就是「鬆」字。「練氣的竅門就是鬆，氣滯則僵硬，放鬆氣才能流動。」

## 2. 以阿城《棋王》解釋武術的「鬆」在阿城的《棋王》中，恰好有個段落能用來說明「鬆」在武術中所扮演的主角角色：

「陰陽之氣相遊相交，初不可太盛，太盛則折，折就是「折斷」的「折」。我點點頭「太盛則折，太弱則瀉」。老頭兒說我的毛病是太盛。又說，若對手盛，則以柔化之。可要在化的同時，造成克勢。柔不是弱，是容，是收，是含。含而化之，讓對手入你的勢。這勢要你造，需無為而無不為。無為即是道，也就是棋運之大不可變，你想變，就不是象棋，輸不用說了，連棋邊兒都沾不上。」（阿城，2005）

武術中的「剛柔並濟」，「剛」指力量，「柔」指放鬆。只有放鬆的時候，才能感受到對方的移動、攻擊、力量的方向，並且巧妙的「不正面與對手的攻擊、力量直線對抗」，而是從側面閃過，從側面把對手力量引導開，或者從正面直線的吸收對手力量、正面直線的利用從對方收回的力量。上段提到「柔」，「柔不是弱，是容，是收，是含。含而化之，讓對手入你的勢。」「鬆」在氣功裡是最核心的概念，而「鬆」在武術裡為柔，武術講究剛柔並濟、陰陽相交，因此「鬆」在武術裡與「剛」組成了最核心的概念。而勢則是自身棋力的展現，包含了純粹技術的下棋技巧、以及下棋的哲學和心理狀態。「無為而無不為」即為「鬆」，「無為即是道」，即暗示「道」可用「無為」兩字貫通。

3. 人生哲學修養對鬆的影響 由於身心之不可分割性，若想在煉氣上精進，就得主動提升修養。而煉氣所需之修養，道德經已約略概述完畢，一言以蔽之，即「無為而無不為」，一個人的人生哲學與修養對於「鬆」的體會和表現影響很大。筆者在學習武術的道路上，深深體會到身心之不可分割性，一個人的哲學完全體現在其武術的打法上——硬碰硬、或者含而化之。總之，無法體會道家「無為」之人，在武術上也無法體會「鬆」，中、西武術之差異主要也源自於此。

「棋運不可悖，但每局的勢要自己造。棋運和勢既有，那可就無所不為了。玄是真玄，可細琢磨，是那麼個理兒。我說，這麼講是真提氣，可這下棋，千變萬化，怎麼才能准贏呢？老頭兒說這就是造勢的學問了。造勢妙在契機。誰也不走子兒，這棋沒法兒下。」（阿城，2005）

這是阿城小說《棋王》中的一段描寫，「棋運」是指被給定的情況，好比武術對打時，我們無法改變對手想出一記鞭腿這件事，只能接受這事實並反映。「勢」就是個人棋力、武術實力的展現，包含純粹的技術、以及個人哲學和心理狀態。造勢的學問，以武術來看，即為對手出招後，抓準契機防禦、破解、反擊。而如果對雙方都不出招，這場比賽也無法打，因為兩方都沒有破綻。

「可只要對方一動，勢就可入，就可導。高手你入他很難，這就要損。損他一個子兒，損自己一個子兒，先導開，或找眼釘下，止住他的入勢，鋪排下自己的入勢。這時你萬不可死損，勢式要相機而變。勢勢有相因之氣，勢套勢，小勢開導，大勢含而化之，根連根，別人就奈何不得。老頭兒說我只有「套」，勢不太明。「套」可以算出百步之遠，但無勢，不成氣候。又說我腦子好，有琢磨勁兒，後來輸我的那一盤，就是大勢已破，再下，就是玩了。老頭兒說他日子不多了，無兒無女，遇見我，就傳給我吧。我說你老人家棋道這麼好，怎麼幹這種營生呢？老頭兒歎了一口氣，說這棋是祖上傳下來的，但有訓——「為棋不為生」，為棋是養性，生會壞性，所以生不可太盛。」（阿城，2005）

在武術上，只要對方一動，那就有機會了，可以找到對手的破綻。老頭兒說王一生只有「套」，「套」在武術上即指練習時的套路、招式，是理論。而「勢」則是個人在圍棋、在武術上的哲學、態度，加上累積圍棋比賽、武術比賽後的經驗而成。「為棋不為生」的祖訓，指的是當一個人不計較利益地熱愛、專注地進行一件事時，才能到達心流（flow）這種無我的狀態，也只有這種純然的專注，才能到達徹底的「鬆」和「無為」。



4. 中、西武術之差異來源即是鬆。筆者認為中西武術之差異來源是哲學修養。中國武術是世上主流武術中，少見地強調修養又強調內功的武術，西方武術絕少談及「鬆」，遑論把「鬆」當作重要的訓練指標。這也正是中西武術訓練手法、訓練成果的差異來源。

## 談練氣對武術之助益

### 一、身體層面

煉氣後在身體感知方面，可以知道做某一個動作時，身體哪些肌肉出了力氣，出的力氣又佔比多少，怎樣修正動作、改變姿勢，及主要出力的肌肉為何等。在身體控制層面，則是有能力依據感知修正動作、改變姿勢，或更精準的控制各塊肌肉。總之，練氣後筆者在身體感知、身體控制，這兩方面皆有顯著進步。

### 二、從練氣的「鬆」，到武術的「鬆」

雖然練氣之「鬆」和武術之「鬆」在心理上、身體上各不相同，但筆者認為此方面進步的主要原因是：練氣非常需要「鬆」，而武術也需要「鬆」。例如，太極拳的套路，本質上介於筆者練習之氣功門派的「靜功標準式」和各種的「動功導引」之間。太極拳套路優於靜功標準式之處，是更能幫助進入「忘我」，達到「放鬆」的狀態。故認為，練氣對武術的主要助益是「鬆」。

## 談煉氣與功能性訓練

### 一、FMA 動作訓練學院的運動理論

依據 FMA 動作訓練學院的運動理論，運動分為五大基礎，分別為身體排列（身

體姿勢）、功能性動作、發力順序、放鬆與用力、呼吸。FMA 之重要標語「Smart body, Strong mind」，強調內（哲學、思考）外（身體功能）的連結與重要性。透過思考，才可以動得更好，除了能夠動的好以外，擁有堅定的意志才能走向更遠大的目標。如何找到身心之間的關連？透過認識身體，學習動作，進而延伸至認識我們的思想，發展思考的能力、策略。

### 二、功能性訓練之於運動

功能性訓練是一種「非專項訓練」，主要訓練身體的協調、穩定度，及如何精準控制肌肉，其對各種專項運動都很有幫助。筆者在練氣之前，身體感知、身體控制兩方面的進步，主要是來自功能性訓練（Functional Training）。比方說：馬克操、熊爬、鱷魚爬、猴子爬、猩猩走路、狒狒走路、毛毛蟲爬等等。「功能性訓練」之於「運動」的關係，就像「哈農」（爬音階、練手指）之於「彈鋼琴」，或者說「微積分」之於「理工學院」。

功能性訓練，主要意義包含三項。1. 訓練核心肌群（廣義的核心肌群=軀體的肌肉，包含胸肌、腹肌、上下背肌）的穩定。核心肌群是傳遞上、下半身力量的中介，核心肌群的穩定對運動非常重要。2. 訓練全身的協調與控制。良好的上半身、核心、下半身的協調和控制，對各項運動皆有助益。3. 訓練如何控制「重心」。重心是運動裡十分重要的概念，能控制好重心，就能快速移動，做出行雲流水般的連續動作。

一般來說，想加強身體感知、身體控制，需要做很多「功能性訓練」。筆者常做的功能性訓練有馬克操、熊爬、鱷魚爬、

站立與半蹲時保持重心而移動等等。馬克操是一種田徑隊訓練，包含前抬腿跑、左右橫移等。田徑項目中跑步是所有運動的重要基礎之一，因為跑步幾乎用到除了斜方肌、前臂以外的所有肌肉，需要穩定核心肌群、控制手臂與雙腳擺動的協調才能完成，所以跑步是所有運動的重要基礎之一。此外三種高度控制重心的各方向的移動（站立移動、半蹲移動、熊爬——在地板上手腳著地、膝蓋懸空的移動）及鱷魚爬、猩猩走路、狒狒走路、毛毛蟲爬等，亦時常練習。

### 三、煉氣與功能性訓練的關係

筆者認為，煉氣在武術的助益相當於功能性訓練，煉氣除了促進健康以外，也可以輔助武術運動，提高武術運動訓練的效率。煉氣相當於做了很多功能性訓練，雖然無法確切得知練氣一小時等於多少份量、多久的功能性訓練，但能感覺練氣之後，增進對身體的感知及控制能力。

### 四、太極拳中的煉氣

#### 1. 太極拳套路之煉氣意涵，介於靜功、動功之間

太極拳的套路，本質上是介於筆者練習之氣功門派的「靜功標準式」和各種的「動功導引」之間的。「靜功標準式」除了放鬆全身、湧泉釘地以外，兩手之間必須要有氣的交流，才有強烈的煉氣效果。而太極拳套路的打法，即時刻如抱球狀，有時是雙手掌間的小球，有時是雙臂間的大球，又要打的很慢（打太快就不是放鬆了），筆者觀察此即為加入運動的「靜功標

準式」，即具「動功導引」效果之變形的「靜功標準式」。

#### 2. 太極拳套路與煉功

太極拳套路煉氣上優於靜功標準式之處靜功標準式站好後，想著「我全身要放鬆」，反而無法放鬆。心理學上著名實驗「反彈效應」(rebound effect)，證實「越想著不要怎樣，就越無法不要怎樣」。那麼怎樣才能真正達到「忘我」，忘記自己坐得好不好、忘記煩憂，心理上的全然放鬆狀態，筆者認為就是心流(flow)這種狀態。太極拳的套路，是一種有動作的靜功標準式，因此有強烈的煉氣效果；或者說是一種打的很慢的動功，有一件事能做，因此能專注在打套路當中，忘記自我。所以，太極拳套路優於靜功標準式之處，就是更能幫助進入「忘我」，達到放鬆狀態。

註1：內功、外功間的正回饋即是「正確身體結構」，即傳統武術所謂「沉肩垂肘」、「含胸拔背」、「下巴微收」。以現代運動科學觀點來看，「沉肩」是斜方肌放鬆，如此下半身的力量才能傳上來通過肩膀，再傳到拳頭。或者把對方推在拳頭上的力量，透過肩膀一路傳到腳尖。這個姿勢最能使力量有效地（即力量損失最少）通過肩膀。「垂肘」是使二頭肌和三頭肌之間的那條肌肉放鬆；使得手肘放下靠近軀幹，一旦手肘翻起來沒有放下，就遠離了軀幹，手臂即很難施力。這個姿勢，才能使力量最有效地（力量損失最少）通過手肘。「含胸」是把肩膀稍微往前放，然後放鬆胸肌、上背肌，這個姿勢才能使力量能通過胸和上背。「拔背」是把沿著脊椎的背肌都放鬆，但同時又要維持脊椎約略是直的結構，此即煉氣中強調的「百會、會陰成一直線」。這個姿勢，才能使力量最有效地（力量損失最少）通過上背、下背。「下巴微收」特別強調頸椎的姿勢要正確，才能使「百會、會陰成一直



線」。這個姿勢能使力量最有效地（力量損失最少）通過頸椎。運動科學如今已解構出最有效率使用人體的方式，以此觀點來看這幾個中國武術的口訣，不難理解這幾個文言文背後的意涵即為「正確身體結構」。

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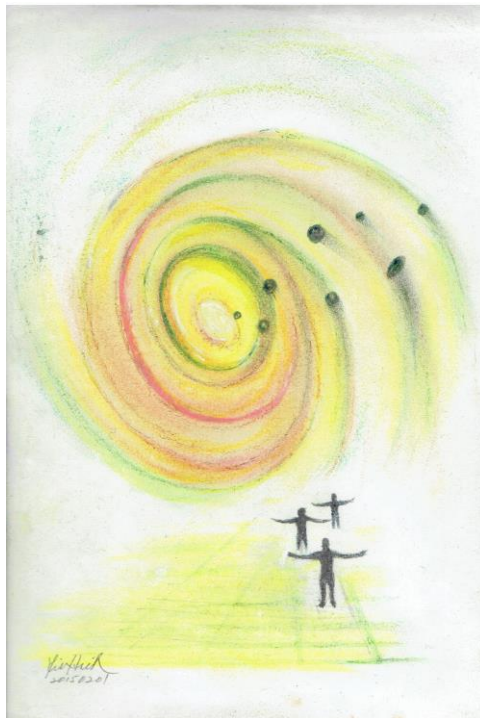
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**郭育丞**—畢業於清大數學系，目前就讀政大 MBA 碩一。大學以前的生活以讀書、考試為主，念大學後才接觸武術——柔道、巴西柔術、散打搏擊、跆拳道、太極拳、八極拳。後來打出興趣，得到 104 年清華盃全國柔道錦標賽男子白帶組第一量級 60KG 級第 3 名，及 104 年高雄 BJJ 巴西柔術道服組 (Gi) 比賽白帶組 63KG 級第 2 名。爾後認識謝醫師，開始學習氣功，目前也在 FMA 練習綜合武術。

**鄭銘章**—畢業於中華大學行政管理學系，目前為目前在 FMA 練習綜合武術，並擔任 FMA 之運動教練。22 歲開始接觸拳擊運動，後來接觸綜合武術、巴西柔術，迄今約兩年。曾得到 107 年台大盃散打 75kg 季軍以及 107 年清大盃散打 75kg 冠軍。

✎本文承閔漢珍老師修訂，在此一併致謝。



**練功—強身保健，但須正確，避免走火、出偏。**

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## 婦女專欄

# I. 不孕症的簡介與治療

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## 一、不孕症的定義

在正常性生活之下且沒有任何避孕措施，一年以上仍然沒有懷孕，就稱之為不孕。不孕症之中，從未懷孕過者，稱之為原發性不孕症，曾經懷孕過卻因某些因素而無法再懷孕，稱之為次發性不孕症。不論何種因素造成不孕症，皆須接受完整評估並找出原因，才有機會接受適當治療。

## 二、不孕症的原因

不孕症的對象來源，約 40% 是單純男方異常、約 40% 是單純女方異常、其餘則是雙方皆有異常。故一旦出現不孕症，男女雙方皆需接受適當的檢查。此外，約有 5-10% 的不孕症夫婦，在接受過適當檢查之後，在現代醫學技術下，依舊無法知道原因。

## 三、男性不孕症的原因、檢查、與治療

造成男性不孕症的原因，可概略分為以下幾點：

1. 精液異常：精子數目過少、形態異常、或活動力不足。
2. 睪丸製造精子障礙：包括先天性異常、染色體異常、荷爾蒙異常、感染性疾病、精索靜脈曲張、慢性疾病、外傷、環境毒素、睪丸腫瘤、藥物影響...等病因。
3. 精子運輸系統異常：包括先天性無輸精管症、或後天輸精管阻塞。
4. 性功能障礙：如陽萎、早洩或無法射精、尿道下裂等。

男方的因素，精液分析（semen analysis）是第一步也是最關鍵的檢查，依據精子密度（sperm concentration）、精子活動力（sperm total motility）、及精子型態（sperm morphology）這三項因子作為判斷依據。

藉由抽血，可進行染色體或其他遺傳性異常之檢查，以判斷是否有男性之染色體（例如：平衡性轉位、鑲嵌型染色體異常）或其他遺傳性異常導致不孕。

若診斷為男性因素之不孕症，則必須接受

泌尿科醫師進一步之診療與檢查，以問診、身體檢查、超音波檢查、抽血檢驗、精液進一步分析...等方式確定病因，並接受適當治療與追蹤、或是以取精的方式，取得正常精子，以治療男性因素之不孕症。

#### 四、女性不孕症的原因

造成女性不孕症的原因，可概略分為以下幾點：

1. 排卵功能異常、荷爾蒙失調、卵巢提早衰竭...等。
2. 子宮頸黏液分泌異常，使精子無法順利進入子宮腔內。
3. 子宮腔結構異常，子宮內膜過薄或沾黏、或功能異常。
4. 輸卵管因發炎或感染，造成沾黏、扭曲、或阻塞。
5. 腹腔內其他因素（如：子宮內膜異位症、骨盆腔沾黏、卵巢沾黏...等）。

#### 五、女性不孕症的檢查

1. 基礎體溫（basal body temperature）測定：

基礎體溫的測量，能提供是否正常排卵、以及是否有黃體期過短或不足等訊息。若為黃體期過短或不足，縱使正常受精，亦可能因為胚胎著床尚未穩固即月經來潮而流產。

2. 內診（骨盆腔檢查, pelvic examination）及披衣菌檢查（Chlamydia DNA examination）：

內診（骨盆腔檢查）能評估女性外生殖器、陰道、子宮頸是否有可視異常，及子宮或子宮附屬器是否有沾黏或其他明顯腫瘤。

披衣菌是女性生殖系統感染中，最常見的病原體。女性生殖系統的披衣菌感染，有可能造成如陰道感染、子宮頸發炎、骨盆腔發炎（pelvic inflammatory disease, PID）、輸卵管發炎、沾黏、阻塞及水腫、骨盆腔慢性疼痛、甚至造成不孕。女性生殖系統持續性披衣菌感染，會降低懷孕成功率，故必須積極治療。披衣菌通常藉由性行為傳染，所以一旦檢驗出此感染，夫妻雙方皆須接受治療。

3. 經陰道超音波檢查（transvaginal sonography, TVS）：

生殖器官解剖構造異常，也是女性不孕症必須檢查與排除的項目。經陰道超音波檢查可檢查如：子宮肌瘤、子宮內膜息肉、其他子宮腫瘤、卵巢腫瘤等病灶，並可追蹤子宮內膜狀況、與濾泡成長狀況等重要資訊。

4. 抗精蟲抗體檢查（antisperm Ab）：

抗精蟲抗體在男女體內都可能出現，一旦出現，會減緩精蟲的活動力，或造成精蟲聚集，進而影響受精。

男性可能因為睪丸創傷、輸精管手術、副睪手術或感染，造成血液睪丸屏障遭受破壞，進而產生對抗精蟲的抗體。女性抗精蟲抗體的產生原因則不明。

治療上，依據精蟲抗體量程度不同，有不同治療方式。(1) 精蟲抗體量> 30 %，建議可先嘗試人工受精 (intrauterine injection, IUI)，如果失敗多次，建議改採試管嬰兒療程 (in vitro fertilization, IVF)；(2) 精蟲抗體量> 50 %，直接採用試管嬰兒療程；(3) 精蟲抗體量> 80 %，採用試管嬰兒療程合併卵細胞質內單一精蟲顯微注射術 (in vitro fertilization with intracytoplasmic sperm injection, IVF-ICSI)。

#### 5. 子宮輸卵管攝影(hysterosalpingography, HSG)：

子宮輸卵管攝影是檢查子宮腔形狀是否正常、與雙側輸卵管是否暢通的常用方法。檢查方法是將顯影劑注射入子宮腔內，在 X 光攝影下，了解子宮是否有先天畸形、子宮腔是否有沾黏或因腫瘤擠壓變形、及輸卵管是否有病變、阻塞或積水等狀況。此外，雙側輸卵管若有輕微阻塞，亦有可能在此檢查之下，因顯影劑注射入子宮腔內所產生的壓力，將輕微阻塞打通。然而，此檢查亦有所限制，只能判斷結構上是否異常，無法做功能上的判讀。所以縱然檢查下發現輸卵管暢通，仍有可能因先前感染或發炎等狀況，輸卵管之纖毛受損無法正常擺動，造成卵子無法正常進入

輸卵管內受精。

#### 6. 血液荷爾蒙分析 (hormonal study)：

##### (1) 抗穆勒氏管荷爾蒙 (AMH, anti-Müllerian hormone)：

一種糖蛋白，其濃度不隨月經週期而變化。在女性體內，於胚胎時期完全不會表現，自出生後由女性卵巢中小濾泡細胞微量分泌，至青春期性成熟時分泌量最高。此荷爾蒙對濾泡成熟及排卵有調控的功能，臨床上可用來預測女性卵巢卵子庫存量，其數值與濾泡存量成正比。

##### (2) 促濾泡成熟激素 (FSH)、黃體激素 (LH)、雌二醇 (Estradiol, E2)、黃體素 (Progesterone, P4)、雄性激素 (testosterone)：

隨月經週期而變化，一般第一次篩檢在月經第三天左右，用以判斷卵巢功能是否正常。

##### (3) 甲狀腺刺激素 (TSH)、泌乳激素 (prolactin)：

甲狀腺功能異常、泌乳激素過高等狀況，都可能導致女性排卵異常，上述檢查可篩檢此類異常。更重要的是，必須找出導致此類異常的病因並加以治療。

##### (4) 腎上腺皮質醇 (cortisol)、17-氫氧黃體酯醇 (17-hydroxyprogesterone,

17-OHP)：

17-氫氧黃體酯醇是腎上腺皮質醇的前驅物，女性體內 21-hydroxylase 缺乏，會導致 17-氫氧黃體酯醇無法代謝成腎上腺皮質醇，造成女性先天性腎上腺皮質增生症 (congenital adrenal hyperplasia, CAH)，或導致女性多毛症與不孕症。

(5) 血糖、胰島素 (insulin)、與糖化血色素：

多囊性卵巢等排卵異常之女性，常伴隨體內胰島素阻抗性高，造成體內血糖值、胰島素、與糖化血色素等數值偏高。

## 7. 內視鏡檢查 (endoscopic examination)

子宮鏡 (hysteroscopic examination) 是以內視鏡置入子宮腔內檢查，藉由內視鏡鏡頭傳輸之影像，直接目視觀察子宮腔內之病變，使用時機在於懷疑有子宮內沾黏、子宮內膜癒肉、子宮內腫瘤壓迫等狀況。此外，也可使用治療用子宮鏡，在檢查同時切除子宮內膜癒肉、黏膜下肌瘤，或切開子宮腔內之沾黏。

腹腔鏡檢查 (laparoscopic examination) 是以內視鏡置入腹腔內檢查，藉由內視鏡鏡頭傳輸之影像，直接目視觀察子宮、卵巢、輸卵管等器官，以及腹腔內之病變，判斷是否有子宮內膜異位症、子宮肌瘤、子宮畸形、骨盆腔沾黏、輸卵管

沾黏、扭曲、水腫、或其他造成卵子無法正常進入子宮腔之原因。腹腔鏡檢查同時，也可由子宮頸向子宮注入染料 (chromotubation)，觀察染料是否由雙側輸卵管繖部 (fimbria) 流出，藉以判斷輸卵管是否暢通。

## 8. 染色體或其他遺傳性異常之檢查

藉由抽血，可進行染色體或其他遺傳性異常之檢查，以判斷是否有女之染色體 (例如：平衡性轉位、鑲嵌型染色體異常) 或其他遺傳性異常導致不孕。針對特殊遺傳性疾病，則必須利用基因檢查、粒線體檢查等方式，找出病灶之位置。

若為以上異常之治療，須先接受試管嬰兒療程，待胚胎發育到第 5 天 (囊胚期) 時進行胚胎切片，利用胚胎著床前染色體篩檢 (preimplantation genetic screening, PGS) 或胚胎著床前基因診斷 (preimplantation genetic diagnosis, PGD)，排除胎兒帶有明顯之染色體異常、與嚴重或致命性遺傳疾病，並選擇檢查正常的胚胎進行胚胎植入。

## 六、不孕症的治療

不孕症的治療，依據不孕症的病因，而有不同的人工輔助生殖 (assisted reproductive technology, ART) 方式。以下簡介常見的治療方式。

### 1. 口服排卵藥



口服排卵藥是最簡單的治療方式，藉由口服藥物刺激濾泡發育，並自行排卵，利用經陰道超音波測量濾泡數目及大小，搭配基礎體溫測量或排卵試紙使用，進而預測排卵日，並在適當的日子行房，進而增加懷孕率。

此方式適用於夫妻雙方檢查無明顯異常，但太太有排卵異常的狀態。

## 2. 人工受精 (intrauterine injection, IUI) 療程

人工授精療程，基本上一定要滿足先生精蟲檢查正常、以及太太最少一邊輸卵管正常通暢的條件。

人工授精療程，是以注射型藥物刺激濾泡發育，待濾泡成熟（大小約 16-18 mm）、及子宮內膜厚度至少達 8 mm 以上，則施打破卵藥物，並在適當時機請先生取精。先生之新鮮精液經過處理後，將精蟲直接注射進太太子宮腔中，待精蟲與卵子自然結合成胚胎並著床。

一般而言，人工授精的平均成功率約 20 %。

## 3. 試管嬰兒 (in vitro fertilization, IVF) 療程

試管嬰兒療程，是以注射型藥物刺激濾泡發育，待濾泡成熟（大小約 16-18 mm）後，施打破卵針，並排定時間進行取卵手術 (transvaginal oocyte retrieval, TVOR)，

先生並於太太取卵當日，同步取精，精液經處理後，與卵子在體外結合，受精之胚胎在體外培養 3 天（8 細胞期 eight-cell phase）至 5 天（囊胚期 blastocyst phase）。若太太子宮內膜厚度至少達 8 mm 以上，且荷爾蒙數值也合乎標準，則可在新鮮胚胎第 3 至 5 天時進行胚胎植入 (embryo transfer, ET)，稱之為新鮮週期植入；若太太子宮內膜厚度不足、荷爾蒙數值不合標準、或有其他考量，將胚胎冷凍，待未來適當時機解凍後再行植入，稱之為解凍週期植入。目前胚胎冷凍技術已成熟，新鮮週期植入與解凍週期植入的懷孕率差異不大。

試管嬰兒療程平均懷孕率約 50-60 %。若女性嘗試自然懷孕多次失敗、三次以上人工授精療程失敗、女性大於 34 歲且兩次人工授精療程失敗、女性大於 38 歲且一次人工授精療程失敗、或高齡求診者，皆建議接受試管嬰兒療程以提高懷孕率。高齡婦女因卵巢功能不佳、濾泡存量低且對藥物刺激反應差，建議應跳過人工授精療程，直接進入試管嬰兒療程。此外，先生無精症但經切片證實有精蟲、性交困難、射精困難、勃起困難等狀況，也必須借助試管嬰兒才能成功懷孕。

## 4. 試管嬰兒療程合併卵細胞質內單精蟲顯微注射術 (in vitro fertilization with intracytoplasmic sperm injection, IVF-ICSI)



試管嬰兒療程合併卵細胞質內單一精蟲顯微注射術，是在試管嬰兒療程中，卵子與精蟲結合的步驟，直接將精蟲注入卵子細胞，以提高受精機率。此技術適用於男性無精症而必須由睪丸或副睪取精、精蟲數目過少(oligospermia)、精蟲活動力不佳(asthenospermia)、精蟲冷凍後之解凍、精蟲型態異常(teratospermia)、精蟲黏稠度高及穿透力差、重度抗精蟲抗體、卵子透明帶過厚、受精率極差之不明原因不受精患者、冷凍並解凍後之卵子、體外催熟的卵子、及接受 PGD/PGS 而為避免胚胎檢體受到胚胎外其他精蟲干擾檢查的準確性...等狀態。

#### 5. 試管嬰兒療程(in vitro fertilization, IVF)

合併胚胎著床前染色體篩檢(preimplantation genetic screening, PGS)或胚胎著床前基因診斷(preimplantation genetic diagnosis, PGD)

胚胎著床前染色體篩檢(Preimplantation Genetic Screening, PGS)，是利用試管嬰兒療程後，待胚胎發育至第5天（囊胚期）時進行胚胎切片，將切片之胚胎細胞進行DNA擴增，利用次世代定序進行全基因組快速定序，檢測胚胎之染色體數目或結構是否正常，並選擇無異常之胚胎植入，增加懷孕率。適用對象為習慣性流產、具家族染色體異常病史、多次試管嬰兒療程失敗、或高齡婦女等胚胎染色體異常機率較高者。

胚胎著床前基因診斷(preimplantation genetic diagnosis, PGD)，一樣利用試管嬰兒療程後進行胚胎切片、DNA擴增等技術，針對具有家族性遺傳疾病、基因異常者，利用客製化探針，偵測胚胎是否帶有遺傳性疾病之基因，並選擇無異常之胚胎植入，增加懷孕率。

### 七、影響不孕症治療成效的因素

除了母體年紀、及胚胎與子宮型態是否正常之外，子宮腔內提供胚胎著床、生長、發育的環境，也是關鍵的因素。

#### 1. 適當的不孕症評估：

適當的不孕症評估，才能有效找出不孕的原因，對症治療。因此夫妻雙方皆接受適當的不孕症評估，是不孕症治療的第一步。

#### 2. 良好的精、卵品質：

沒有良好的精、卵品質，直接影響的就是受孕與胚胎正常著床發育的機會。

維持良好的生活習慣，有助於增進精、卵品質，因此需避免煙、酒、藥物等的濫用，適當調適工作、情緒、及減少壓力，均衡攝取營養，保持理想體重，避免過胖或過瘦。

女方的卵子數量與品質，與年齡習習相關，若有生兒育女的計劃，應及早規劃，避免因卵巢衰老導致卵子數目減少與染

色體異常機會增加。

假如因為夫妻之中有染色體或基因異常造成不孕，則必須接受試管嬰兒療程，配合胚胎著床前染色體篩檢或基因診斷，選取無異常之胚胎植入，增加懷孕率。

### 3. 維持良好的胚胎受精、著床、與發育之環境

單一性伴侶、與維持正確適當的會陰部清潔習慣，能減少女性生殖系統感染、甚至造成骨盆腔發炎的機會；有子宮內膜異位症，或卵巢腫瘤的女性，亦應接受適當評估與治療，減少因骨盆腔器官沾黏導致的不孕。

女性若有子宮內膜息肉、或黏膜下肌瘤，經檢查後排除其他原因導致之不孕，則建議接受子宮鏡手術切除腫瘤，增加胚胎正常著床機率。

除了母體年紀、及胚胎與子宮型態是否正常之外，子宮腔內提供胚胎著床、生長、發育的環境，也是關鍵的因素。

未有生育計劃的女性，應適當避孕，減少因流產或子宮手術造成子宮內膜受損與子宮腔沾黏的機會。

子宮內膜厚度過薄，胚胎著床不易。依據研究與臨床經驗，子宮內膜厚度至少需達到 8 mm，才能使受精卵穩定著床，子宮內膜厚度若小於 6 mm，則必然無法懷孕。若接受試管嬰兒療程，須待子宮內

膜厚度足夠再行植入，才有著床的機會。

此外，自體免疫疾病或新陳代謝疾病未適當控制，會造成子宮血管品質不佳與血液灌流不足、子宮腔內慢性發炎、與血栓形成機會高等問題，同樣造成胚胎著床不易與血液供應不足等影響。母體紅斑性狼瘡、或自體免疫性甲狀腺功能異常，其抗體能通過胎盤攻擊胎兒，造成胎兒房室傳導阻滯或甲狀腺功能異常等問題。

妊娠中、後期的子宮異常收縮、妊娠高血壓或子癲前症、或上述提到的其他狀況，同樣影響胎兒與母體之健康。如何提供並維持一個良好的子宮腔環境，左右了母體與出生胎兒的健康。



紫色鳶尾花(Iris)

是梵谷(Vincent Van Gogh)1890 年著名畫作的主角。紫色鳶尾花有盛放在世界文化中的花朵之稱，寓意愛意與吉祥，蘊含深深祝福。

## Special columns

# I. Introduction and Treatment of Infertility

**Dr. Jen Chen Long**

## I. The definition of infertility

Infertility is “a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse.” (WHO-ICMART glossary). When a woman is unable to ever get pregnant she would be classified as having primary infertility. Secondary infertility, by contrast, defined as unable to bear a child following a previous pregnancy. Regardless of the cause of infertility, a comprehensive evaluation is necessary before appropriate treatment.

## II. The cause of infertility

The causes of infertility solely from male and female are 40% and 40% respectively. In the remaining cases, there are abnormality with both the male and female. Therefore, both couples required to be adequate evaluated in the event of infertility. Nevertheless, even under adequate examination, no cause can be identified in 5-10% of infertile couples.

## III. The causes, examination and treatment of male infertility

The causes of male infertility can be roughly summarized as the following:

Abnormal semen: low sperm count, abnormal shape of sperm or low sperm mo-

bility.

Abnormal sperm production: congenital anomalies, chromosomal abnormalities, hormonal abnormalities, infectious diseases, varicocele, chronic diseases, trauma, environmental toxins, testicular tumors, medication, etc.

Problems with the delivery of sperm: congenital absence of vas deferens or acquired obstruction of vas deferens.

Sexual dysfunction: impotence, premature ejaculation or failure to ejaculate, hypospadias, etc.

The first and the most important examination for male infertility is semen analysis, including sperm concentration, sperm total motility and sperm morphology. Genetic or chromosome testing could be done to determine whether there's a genetic defect causing infertility (eg, a balanced transposition, a mosaic chromosomal abnormality).

If there is an issue with the male, it is necessary to seeing the urologist and arrange further examination including history taking, physical examination, ultrasonic examination, blood test, further analysis of semen, etc. to determine the cause of infertility and receive appropriate treatment and follow up. In addition, normal sperm could be obtained by sperm retrieval for treatment of male infertility.

#### IV. The causes of female infertility

The causes of female infertility can be roughly summarized as the following:

1. Abnormal ovulation, hormonal imbalance, ovarian early failure ... and so on.
2. Abnormal secretion of cervical mucus, so that sperm cannot smoothly enter the uterine cavity.
3. The structure of the uterine cavity is abnormal, the endometrium is too thin or sticky, or abnormal function.
4. The fallopian tube is sticky, distorted, or blocked due to inflammation or infection.
5. Other factors in the abdominal cavity (such as: endometriosis, pelvic adhesion, ovarian adhesion, etc.).

#### V. Examinations for infertility in female

##### 1. Basal body temperature charting

The cyclic change in basal body temperature provides information on the hormonal surge required for ovulation and also the length of luteal phase which can be monitored by the basal body temperature chart. The periodic change of basal body temperature including the low and high temperature period. The follicular phase of menstrual cycle start from the end of period and persist before ovulation. During this period, estrogen dominate the cycle corresponding the proliferative phase of endometrium and a low temperature period. Following ovulation, the menstrual cycle enters luteal phase with the surge of progesterone preparing the implementation en-

vironment of endometrium and turning into high temperature period. This high progesterone-dominated phase and high temperature period will last for 12-16 days. Under the circumstance of no embryo implementation, the endometrial shedding and bleeding occurs followed by the decrease in basal body temperature. For women with insufficient progesterone support, the high temperature period will within 12 days and the the variation in progesterone level will increase. Under such a circumstance, the embryo may fail to implement event with success fertilization.

##### 2. Pelvic examination and Chlamydia DNA examination

Pelvic examination is crucial for the evaluation of female reproductive system including external genitalia, vagina, and cervix and anomaly in uterus and adnexa such as adhesion and tumour. Among the infection of female reproduction system, Chlamydia is the most common pathogen. The disease spectrum of Chlamydia infection in female reproductive system including vaginitis, cervicitis, pelvic inflammatory disease, salpingitis, hydrosalpinx, adhesion, obstruction, chronic pain, and infertility. The persist Chlamydial infection of female reproductive symptom will results in infertility and hence calls for aggressive treatment. Due to the sexual transmission route, both of the couple require treatment once the infection in female is identified.

##### 3. Transvaginal Sonography (TVS) :

Abnormal anatomy of the reproductive organs is also an etiology that must be checked and excluded for female infertility. Transvaginal ultrasonography is able to detect diseases such as uterine myoma, endo-

metrial polyps, and uterine or ovarian tumors. Important information such as endometrial conditions and follicular growth can also be tracked.

#### 4. Anti-sperm Antibody Exam :

Anti-sperm antibodies may occur in both men and women. Once they occur, they may slow down the activity of sperm or cause sperm to aggregate, which in turn affects fertilization. Men may suffer from damage to the blood-testis barrier due to testicular trauma, vasectomy, epididymal surgery, or infection, which in turn produces antibodies against sperm. The cause of female anti-sperm antibodies is unknown.

In terms of treatment, there are different treatment methods depending on the amount of anti-sperm antibody. (1) The amount of anti-sperm antibody  $> 30\%$ . It is recommended to try intrauterine injection (IUI) first. If it fails many times, it is then recommended to change the in vitro fertilization (IVF); (2) the amount of anti-sperm antibody  $> 50\%$ , use IVF treatment directly; (3) the amount of anti-sperm antibody  $> 80\%$ , adapt in vitro fertilization with intracytoplasmic sperm injection (IVF-ICSI).

#### 5. Hysterosalpingography, (HSG) :

HSG is a common method to check whether the shape of the uterine cavity is normal and whether bilateral fallopian tubes are patent. During an HSG, contrast media was first injected into the uterine cavity. Then under X-ray photography, lesions such as congenital uterine malformation, uterine cavity adhesion, uterine tumor, fallopian tube obstruction or fluid accumulation could be detected. In addition, if bilateral fallopian tubes are slightly obstructed,

it is possible that under this examination, the pressure generated by injecting contrast media into the uterine cavity could reopen the obstructed tubes.

The limitation of this exam is that it can only discover structural abnormalities, and is not used for functional interpretations. Therefore, even if the fallopian tube is found to be patent, the ovum may still not be able to enter the fallopian tube properly due to previous infection, inflammation, or fallopian cilia damage.

#### 6. Hormonal study :

Anti-Müllerian hormone (AMH): a glycoprotein whose concentration does not change with the menstrual cycle. In the female body, it does not manifest at all during the embryonic period. A small amount of AMH is secreted from follicular cells since birth, and the secretion increased to its highest at the time of adolescence. This hormone regulates follicle maturation and ovulation, and can be used to predict the female ovarian reserve. The AMH value is directly proportional to the ovarian follicle reserve.

Follicle-stimulating hormone (FSH), luteinizing hormone (LH), estradiol (E2), progesterone (P4), and testosterone: change with menstrual cycle. In general, the first screening is performed on the third day of menstruation to determine whether the ovarian function is normal.

Thyroid stimulating hormone (TSH), prolactin: abnormal thyroid function or excessive prolactin may lead to abnormal ovulation in women. The above examination can screen such abnormalities. More importantly, the cause of such abnormalities



should be identified and treated.

Cortisol, 17-hydroxyprogesterone (17-OHP): 17-OHP is a precursor of cortisol. A 21-hydroxylase deficiency in women impairs the metabolic pathway from 17-OHP to cortisol, causing congenital adrenal hyperplasia (CAH), or female hirsutism and infertility.

Blood sugar, insulin, and glycated hemoglobin (HbA1c): polycystic ovary and other ovulation abnormalities, often accompanied by high insulin resistance in women, resulting in high blood sugar, insulin, and glycated hemoglobin levels.

#### 7. Endoscopic examination

Hysteroscopic examination is an examination by placing endoscopy into uterus so that doctor can exam the pathologic lesion or abnormality by direct observation through the endoscopy. Indications of hysteroscopic examination are intrauterine adhesion, endometrial polyps, and intrauterine tumor compression, etc. It is not only for diagnosis but also be used therapeutic purpose to remove endometrial polyps, submucous myoma or adhesion at the same time.

Laparoscopic examination is an examination by placing endoscopy into pelvic cavity so that to directly see the structure or the abnormal lesion of uterine, ovary, and fallopian tube and other organs in the pelvic cavity, such as endometriosis, uterine myoma, uterine malformation, adhesion of uterine or fallopian tube, fallopian tube torsion, fallopian edema and any causes that interferes the ovum pass into uterine. During the examination, chromopertubation (instillation of dye through the fallopian

tubes) can be performed to assess tubal patency by seeing dye from cervix to fimbria.

#### 8. Examinations of chromosomes and other genetic abnormalities

Chromosomes or other genetic abnormalities, such as chromosome translocation, Chromosome Mosaicism or other abnormalities, can be diagnosed by a blood sampling. Other specific genetic abnormalities can also be found by genetic testing or mitochondria testing.

If the above genetic abnormalities existed, in vitro fertilization (IVF) can be considered. After in vitro fertilization, doctor exams the embryo (5<sup>th</sup> day after fertilization, Blastula stage) by performing preimplantation genetic screening (PGS) or preimplantation genetic diagnosis (PGD) to exclude the embryo with significant chromosome abnormality, which will lead to serious or fatal genetic disease, and chooses the normal embryo to perform embryo implantation.

## VI. Treatments of infertility

The treatments of infertility are subjected to the cause of infertility. Common assisted reproductive technology (ART) is introduced as following:

#### 1. Oral ovulation stimulator

Oral ovulation stimulator is the simplest treatment for infertility by stimulating the follicular maturation and ovulation. It uses with basal body temperature measurement and ovulation test to predict the ovulatory period and increases the chance to fertility.

This treatment is indicated for the wife with

only abnormal ovulation.

## 2. Intrauterine injection (IUI)

Intrauterine injection is indicated for those whose husband has normal sperm test and wife has at least one side patent fallopian tube.

The procedure is first to stimulate the follicular cell by injection of stimulation drug. Once the condition of the follicular cell matures (size of 16-18 mm) and endometrial thickness is over 8mm, the ovulation stimulator is injected. Fresh sperm of the husband is collected and then appropriately prepared to inject into wife's uterine. After that, waiting for ovary fertilizing and implanting into uterine cavity.

General speaking, the average successful rate is around 20%.

## 3. In vitro fertilization (IVF) treatment

The IVF treatment is based on the injection of drugs to stimulate follicular development. After the follicles are mature (about 16-18 mm in size), the injection of human chorionic gonadotropin (HCG) is used for ovulation and transvaginal oocyte retrieval (TVOR) is arranged. Semen is collected in the same day. After the semen is collected and purified, it is fertilized with the ovum in vitro. The fertilized embryo is cultured in vitro for 3 days (eight-cell phase) to 5 days (blastocyst phase). If the wife's endometrial thickness is at least 8 mm and the hormonal value reaches standard value, embryo transfer (ET) can be performed on the 3rd to 5th day, which is called fresh embryo transfer. If the wife has insufficient endometrial thickness, hormonal values do not meet standard value, or have other considerations, the embryos will be frozen and

will be implanted in the future. This is called frozen embryo transfer. At present, the embryo freezing technology has matured, and the pregnancy rate of fresh embryo transfer and frozen embryo transfer is similar.

The average pregnancy rate for IVF treatment is around 50-60%. If a woman fails to pregnant many times, or more than three times the artificial insemination fails, a woman is older than 34 years and two times the artificial inseminations fails, a woman is older than 38 years and an artificial insemination fails, or an older patient, it is recommended to receive IVF to increase pregnancy rates. Older women have poor ovarian function, low follicular stock and poor response to drug stimulation. It is recommended to skip the artificial insemination and receive the IVF treatment. In addition, the husband has azoospermia, but he has sperm which is confirmed by section, difficulty in sexual intercourse, difficulty in ejaculation, erectile dysfunction, etc., it is recommended to receive IVF to successfully conceive.

## 4. In vitro fertilization with intracytoplasmic sperm injection (IVF-ICSI)

In vitro fertilization with intracytoplasmic sperm injection (IVF-ICSI) is a step of combining the ovum with the sperm in the IVF procedure, directly injecting the sperm into the ovum cell to increase fertilization rate. This technique is suitable for male azoospermia and sperm cell must be taken from testes or epididymis, oligospermia, asthenospermia, sperm after frozen, teratospermia, high sperm viscous and poor penetration, severe anti-sperm antibodies, excessively thick ovum zona pellucida, and



poorly fertilized rate for unknown reason, ovum after frozen, in vitro matured ovum, and those who receive PGD or PGS.

5. In vitro fertilization (IVF) combined with preimplantation genetic screening (PGS) or preimplantation genetic diagnosis (PGD)

Preimplantation Genetic Screening (PGS) is a method of sectioning of embryonic cells after the fifth day (blastocyst stage) after IVF treatment, and DNA amplification of the embryonic cells is utilized. The next generation sequence is to perform rapid genome-wide sequencing, to detect whether the chromosome number or structure of the embryo is normal, and to select embryo transfer without abnormality to increase the pregnancy rate. It is applicable to habitual abortion, family history of chromosomal abnormalities, multiple IVF failures, or old age women with higher probability of embryonic chromosome abnormalities.

Preimplantation genetic diagnosis (PGD) uses embryonic sectioning, DNA amplification and other techniques after IVF treatment. It is suitable for patients with familial genetic diseases and genetic abnormalities. It use customized probes to detect whether the embryo carries the gene of hereditary disease and chooses embryo transfer without abnormality to increase the pregnancy rate.

## **VII. Factors affecting the effectiveness of infertility treatment**

In addition to the maternal age, and normality of the embryo and uterus, the environment in which the embryo is implant-

ed, grown, and developed in the uterine cavity is also a key factor.

### **1.A proper evaluation of infertility**

A proper evaluation of infertility is the way to discover the etiology of infertility and subsequent treatment modalities. It is necessary for both males and females to have detailed examinations for infertility to treat infertility.

### **2.The quality of sperms and ova**

The quality of sperms and ova is one of the important influential factors in the success rates of pregnancy and the bedding of embryo. A good life habit is helpful in improving the quality of sperm and ova, including avoidance from uses of cigarettes, alcohol, recreational drug, etc., proper adjustment of workload, emotional stress and pressure, balanced and nutritional diets, and physical fitting. The number and quality of the ovum depends on the age of females. Females with older age have higher risk of decreased number of the ovum and abnormal chromosome due to ovarian failure. Gene-related infertile males and females are required to receive in-vitro fertilization with chromosome examination and gene diagnosis to select normal embryo and increase pregnancy rates.

### **3. Maintenance of a good environment of fertilization, bedding and development of embryo**

Single sexual partner and habits of correct and proper cleaning of perineum can effectively reduce the infection of female reproductive system and risk of pelvic inflammation diseases. Patient with endometriosis or ovarian tumors should have proper evaluations and treatments to treat the in-

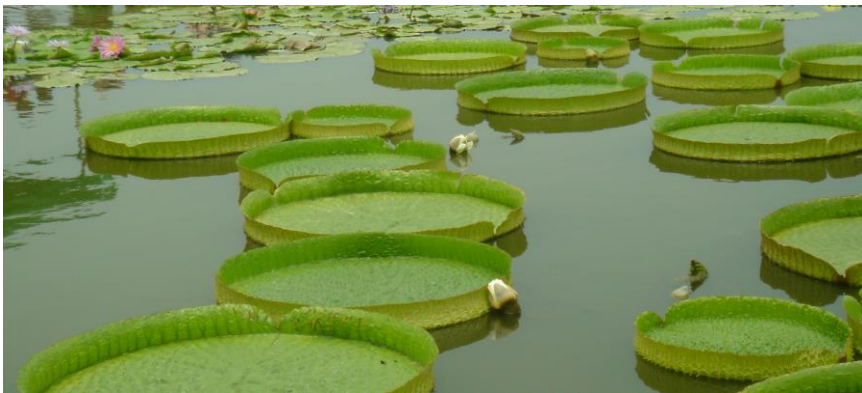
fertility caused by adhesion of pelvic organs. Females with endometrial polyps or sub-mucosal uterus myoma are recommended to undergo hysteroscopic tumor resection to increase success rates of embryo bedding.

In addition to maternal age, the morphology of embryo and uterus is the key to normal environment of embryo bedding and growth. Female with no fertilization plan should have measures of contraception to reduce the risk of endometrial injuries and adhesion of uterus cavity.

The overt thinning of endometrium would have an adverse effect on the embryo bedding. According the prior studies and clinical experiences, the thickness of endometrium is required to be 8 mm to stabilize the bedding the fertilized egg. It is difficult for females with the endometrium less than 8 mm in thickness to be pregnant. For in-vitro fertilization, it is necessary to ensure the adequate thickness of endometrium

before embryo implantation. Besides, the poor- controlled autoimmune diseases or metabolic diseases would result in the abnormal vasculatures and hypoperfusion in the uterus, chronic inflammation of uterus cavity, and thrombus formation, which lead to difficult bedding of embryo and inadequate blood supply. Maternal systemic lupus erythematosus or autoimmune thyroid dysfunction produces the antibody, which may be transferred through placenta and affect the fetus, causing atrioventricular conduction delay or thyroid dysfunction of the fetus.

In the second and third trimesters of pregnancy, the abnormal uterus contraction, gestational hypertension and preeclampsia affect the fetal and maternal health. How to maintain a good environment of the uterus cavity is vital to the health of the maternal body and neonates.



王蓮(Victoria)

屬名取自英國的維多利亞女王，夏季開花，單生，浮於水面，葉盤可承受 50-70 公斤。王蓮超承重力的原理被應用到許多現代化的機場大廳、宮殿、廠房。

## II. 穴壓對人工受孕的應用

謝麗貞、吳雪鳳

### 一、前言

人工受孕是台灣目前提高生育率，相當普遍的醫療技術。不論是採用人工受精或試管嬰兒方式，女性在接受人工受孕的過程中必須施打排卵針，藉由下視丘釋放激素刺激腦下垂體，分泌濾泡成熟激素（follicle-stimulating hormone, FSH）與黃體生成素（luteinizing hormone, LH）等荷爾蒙，促進排卵。排卵前，黃體生成素約為平常的 6-10 倍，而濾泡成熟激素則會增加 2-3 倍。同時，黃體亦開始分泌雌激素（Progesterone）與助孕酮（Estrogen）。排卵後，雌激素與助孕酮會大量上升，有助於增加輸卵管纖毛向子宮方向的推進、促進乳房發育、促進子宮內膜細胞分泌、降低子宮收縮強度與頻率，協助受精卵著床，並滋養受精卵以利其分裂(樓迎統等譯，2008:1011-1021)。

當雌激素與助孕酮大量釋出時，會對腦垂腺前葉產生相當強的抑制作用，將濾泡成熟激素與黃體生成素控制在很低的分泌狀態。相反的，當腦下垂體再度分泌濾泡成熟激素與黃體生成素，開始新的卵巢週期時，會因缺乏雌激素與助孕酮，子宮內膜也會剝落，造成月經來潮(樓迎統等譯，2008:1011-1021)。

換言之，利於排卵的母體狀況是濾泡成熟激素與黃體生成素處於促進排卵的上升狀態，排卵藥劑在此原理的運用下，藥劑使用的劑量與取得的卵子數成正比，

然而為使受孕成功，卻也成為用藥的盲點。因為體內受此類藥物刺激，容易出現超越生理狀態（Supra physiology）。此非自然的生理狀態容易在排卵後，讓濾泡成熟激素與黃體生成素仍在上升狀態，抑制雌激素與助孕酮的分泌，進而影響子宮內膜增厚等利於受精卵順利著床與穩定成長的環境，特別是子宮內膜會因這些激素在血液中含量下降，小動脈收縮減少氧的供應，導致細胞死亡與動脈破裂出血，影響受孕成功的機率，這就是人工受孕會比自然懷孕的孕婦更容易有出血情形的原因。

人工受孕中的刺激排卵用藥，對臨床治療而言是極為不易的兩難，因為此著實違反女性生理自然運作機制；既要排卵機制運作，又要啟動助孕機制。因此，要維持兩大機制的平衡運作，讓受精卵順利著床、分裂與成長，降低失敗機率，仍是婦科醫生努力的目標。

### 二、穴壓治療

由於穴壓是利用氣能啟動人體的自動修護、自動調節及自動生殖的機制，並協助其調整改善組織器官的生理運作，進而恢復健康並增進功能，因此在婦女人工受孕上的應用具有不同於一般治療的意義。

人工受孕所必須有的子宮評估、精卵子選取、受精卵品質的監測、以及植入著床等是屬於生物科技方面的操作技術，穴壓治療對其是無法有所幫助，但是對於改

善母體整體氣血的充足、子宮的健康，來順利完成受精卵的植入和著床，增加受孕成功率是可以有幫助的。

其可分以下幾個方面來說明：

受精卵植入前

### 1. 母體健康的改善

一般身體虛弱或有急慢性病史的婦女，比較不容易自然懷孕；或是年齡較大，器官衰退也不易受孕。這種個案如果去尋求人工受孕，其成功率也比較低。我們為增加其受孕成功率，首先需改善母體的健康，用穴壓治療提升其氣血能量，增進血液循環，讓組織器官的生理運作漸漸恢復健全，身體重新活絡；另外，還要盡量去治療其原先的急慢性病和所遺留下的後遺症狀。如此，母體組織器官生理運作漸漸恢復，不低於一般人的健康水準，身心愉悅，其受孕成功率自然增加，甚至不必採用人工受孕。

### 2. 月經的調理

婦女月經失調的比率甚高，症狀包括痛經、經期紊亂、經血過多、經血過少、頭痛、頭暈或身體衰弱無力等。這些症狀和先天或後天貧血、意外失血有關，一般是身體血量不足、氣血滯礙不順所形成，但也有可能是內分泌不平衡所造成。穴壓採用高於一般身體的氣能，強行疏通氣血，消除滯礙阻塞的氣血循環，使身心氣血運行暢通後，各種疼痛、衰弱、無力感自然消失。經血過多或過少，亦可以用穴壓調整治療，不必使用激素，可以減少對身體不必要的干擾和所遺留的副作用。臨床上穴壓對月經的調理、解除經痛、血量的控制、週期的調整，有非常好的效果。

### 3. 子宮內環境的改善

子宮內環境的優劣是人工受孕成功與否的重要因素之一。子宮體的健康、子宮內膜的厚度、血管血流的多寡、甚至子宮前後傾的位置都可以影響受孕成功率。這一方面皮表上都有相關穴道可以操縱治療，去改善生殖器官的生理運作功能，從而增加人工受孕的成功機率。

### 4. 激素藥物作用

人體性激素和腦下垂體、肝腎功能、血液循環以及性器官都有緊密相互左右的關係，任何環節失能都會造成生殖系統的失能。由於人體是自動運作的機體，當某一個環節失能——性激素缺乏或過多，並不表是人為額外的性激素補充或給予抑制劑，會促使自動運作的機制恢復正確的運轉，反而產生副作用或併發症。在人工受孕的過程中，這種現象時常產生，造成人體諸多的不適。穴壓正好可以取代或去除這些不良的反應。

### 5. 母體身心健康的支持

日常生活中，衣食住行多少要遭遇困擾，例如感冒、胃腸疾病、頭痛、失眠、呼吸不順等，或工作壓力，心理情緒困擾，惶恐不安等等，都可用穴壓緩解，讓婦女在一個舒適的身心狀態下去接受人工受孕及受精卵的植入。

### 受精卵植入著床後

一般在確定受精卵順利植入著床成功後至少三週以上，才能進行穴壓治療。孕婦的穴壓治療有別於一般常人的治療，有許多可致危險的穴道不可以碰觸，治療者需要更多穴壓技巧和知識，操作時要非常小心，因此多由資深的治療者來擔任。



這個階段，一般多傳輸氣能給予孕婦使其增強體力應付身心壓力，能順利孕育新生命。

### 懷孕期間直到生產

一般孕期中，大部分狀況下都不建議給孕婦藥物，對於孕婦的意外傷害，如跌倒、外傷致肢體受傷、頭痛、失眠等多給於外用藥，孕婦需忍受疼痛至生產為止才給予解除。又隨著胎兒的成長，腹部肌肉撐大，對橫膈膜和心、肺的上挺及對胃腸的壓迫，到懷孕晚期腎臟排尿增加負擔，下肢沉重水腫進而減緩血液回流、血壓的上升，產生頭痛、呼吸困難、心臟無力。又在妊娠過程中，孕婦有可能舊疾復發，或因妊娠相關症狀的產生，致使孕婦病痛不堪。然而這些症狀都可經過不必使用藥物的穴壓治療而得到解除或舒緩，協助孕婦順利完成懷孕過程而平安生產。

### 三、個案說明

1. 四十多歲已婚逾十年婦人，有十餘次人工受孕失敗的經驗，子宮受傷、身心憔悴、肢體無力。經約一年多穴壓治療調整後，一次人工受孕即順利成功，懷了雙胞胎，並順利生產。
2. 三十多歲婚後多年難以懷孕，醫師診斷身體氣血不足，子宮不強壯，經過穴壓治療至確認身體及子宮健康後，一次人工受孕即順利成功，並順利生產。
3. 三十多歲婦人經診斷為子宮後傾，不能受孕，穴壓調整子宮位置後，已育兩子。
4. 有數個個案，因不明原因人工受孕失敗數次之婦人，經穴壓治療調整身體和子

宮後，順利成功懷孕，或順利成功人工受孕。

5. 人工受孕成功懷雙胞胎三十多歲之婦人，於32週後雙腿腳嚴重水腫、行動困難、呼吸困難、心臟無力、血壓高升、頭痛、失眠。醫師建議立即剖腹生產，後經穴壓治療，三天內症狀全部消失，如預產期平安順產。

類似以上人工受孕之孕婦個案不勝枚舉，這正是穴壓治療在人工受孕上的應用，其能協助人工受孕成功的因素，不外以下的因素：(1) 傳輸能量；(2) 啟動人體修護機制；(3) 活絡人體自動系統；(4) 增進人體尤其是子宮的健康；(5) 不用藥物調節組織器官功能；(6) 維護及支持身心的健康。

### 四、討論

穴壓對人工受孕或試管嬰兒操作上的技術，如投與激素、促進排卵、取卵、受精及受精卵植入等的技術是無法發生任何干預。但是穴壓治療可以改善母體全面身體的氣血健康及增進子宮內的健康。只要治療者技術精良，促使母體準備完善以接受人工受孕，因而就能順利成功懷孕。穴壓可以取代藥物，幫助孕婦，特別是在懷孕期間中，意外傷害、病痛、風寒、腸胃不適，解除症狀，恢復其至正常狀況，是一種安全、有效卻沒有任何外加的非侵入的治療法，更不會影響胎兒的生長發育或致畸型的可能。

不過，穴壓不是萬能，也有條件的限制，比如說天生缺陷有其不可修護的限制；若人的自動能量產生系統功能不良產能低下，或是其自動修護、自動調節及自動

生殖的機制故障，難以恢復或恢復不及，也不是穴壓可以改善的；有時改善療程耗時較久，也不是一般人所樂見的；另外穴壓治療過程中產生的穴道反應痛，也並非人人都願意接受的。

又，成功的人工受孕需倚靠人類自動系統中的自我生殖器官功能運作正常。倘若身體器官缺陷、性激素缺乏、精卵子缺陷、人工授孕技術不足，則需要更進一步

科技的完善進步、客觀環境的改變、身體／子宮的改善、充足的能量供養胚胎的發育、成長，同時維護孕婦身體，免於外傷、內感、疾病等傷害。這些都是在人工受孕前值得進一步深思及評估的。

### 參考文獻

Arthur C. Guyton and John E. Hall 著，樓迎統等譯，2008。醫用生理學（Textbook of Medical Physiology）。台北：台灣愛思唯爾有限公司。



羅東林業文化園區儲木池

為日據時期大正 13 年（1924 年）至民國 71 年，太平山開採伐木的林場貯木池，文化園區佔地面積約 16 公頃，記錄著這段伐木時代珍貴的歷史。



## II. Use of Acupressure in Artificial Pregnancy

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### Introduction

Artificial pregnancy is a common medical technique to increase birth rate in Taiwan. Either in intrauterine insemination or in-vitro fertilization, females are required to receive ovulation- stimulating drugs, which induce the hypothalamus to release GnRH (gonadotropin-releasing hormone) and thereafter pituitary gland to release FSH (follicle-stimulating hormone) and LH (luteinizing hormone) to induce ovulation. Before ovulation, the serum concentration of LH is approximately a six to ten-fold increase in the non-ovulation period and FSH two to three-fold increase in the non-ovulation period. Meanwhile, the corpus luteum starts to secrete progesterone and estrogen. After ovulation, progesterone and estrogen surges in great amounts, which facilitates the function of cilia of the fallopian tube, activates the development of breast, and stimulates the secretion of endometrium. It also decreases the strength and frequency of uterus contraction, which helps the implantation and nurture of fertilized eggs (Arthur, 2008:1011-1021).

The surges of progesterone and estrogen inhibits the function of anterior lobe of pituitary gland and hence maintains the FSH and LH in low levels. Contrarily, when pituitary gland restores to secrete FSH and LH, the ovarian cycle starts. The endometrial lining is shed, and the process of shed-

ding involves the loss of the tissue and blood, called menstruation(Arthur, 2008: 1011-1021). Ovulation-stimulating drugs elevate the level of FSH and LH to induce ovulation in a dose-response relationship. However, overdose of ovulation-stimulating drugs may cause “supra physiology”, namely the persistently elevated level of FSH and LH after ovulation, which suppresses the secretion of progesterone and estrogen and impairs the environment of fertilized egg implantation, including a decrease in the thickness of endometrial lining and impaired oxygen supply induced by arteriole vasoconstriction. These cause the breaking down of the endometrial lining and the tearing of small connective blood vessels, and affects the process of fertilization. This is the reason why women receiving artificial pregnancy are prone to have endometrial bleeding.

The potential complication of ovulation-stimulating drugs in artificial pregnancy causes a dilemma for clinicians due to the dysregulation of menstrual cycle, and the simultaneous activation of ovulation and fertilization. Accordingly, it is the goal for obstetricians to balance these two mechanisms (i.e. ovulation and fertilization) to facilitate the implantation and growth of fertilized eggs and increase the success rate of artificial pregnancy.

### Acupressure

Acupressure uses the energy force (Qi) to activate the healing process and fertilization autoregulatory mechanism of human body, helps the human body improve its physiology functions of tissue and organs, and restores the health and body functions in women. Acupressure has a unique clinical implication for artificial pregnancy.

Acupressure plays no role in the evaluation of uterus, selection of sperm and ovum, the quality control of fertilized eggs, or implantation of fertilized eggs in artificial pregnancy. However, acupressure can help in improving the Qi and blood of maternal body and the health of uterus, facilitating the implantation of fertilized eggs and increasing the success rate of pregnancy.

The mechanism of acupressure is as the follows:

### **A. Before the implantation of fertilized eggs**

#### **1. The improvement of maternal health**

It is difficult for women with frailty, comorbidities, old age or organ dysfunction to become pregnant by nature. The success rate of artificial pregnancy for those women is low, too. In order to increase the success rate of artificial pregnancy, it is essential to improve the maternal health first. We can use acupressure to elevate the strength of Qi and blood, improve the circulation system, and normalize the physiology function of tissue and organs in maternal body. In addition, it is important to treat the sequela of preexisting comorbidities as much as possible. Thereafter, the tissue and organs in maternal body restore normal functions, increasing the pregnancy rates naturally. In

this way, women even do not need artificial pregnancy to be pregnant.

#### **2. The regulation of menstruation**

A sizable proportion of women have menstrual disorders, including dysmenorrhea, menorrhagia, hypomenorrhea, headache, dizziness, general weakness, etc. These symptoms are associated with congenital or acquired anemia, and traumatic bleeding. It is often caused by hypovolemia, the stagnant Qi and blood, and dysregulation of endocrine system. Acupressure uses a strong level of Qi to dredge the Qi and blood and remove the obstruction in the circulation of Qi and blood, relieving the pain and treating the weakness in a natural way. Hypermenorrhea and hypomenorrhea can be treated using acupressure without hormonal therapies to avoid unnecessary disturbance in human body and its related subsequent adverse effects. Acupressure is effective in the regulation of menstrual cycle and treatment of menstrual disorders.

#### **3. Improvement of the uterine environment**

The uterine environment is one of the important factors for the success of artificial conception. The health of the uterus, the thickness of the endometrium, the blood flow of the blood vessels, and even the anteversion or retroversion of the uterus can affect the success rate of conception. In this aspect, there are related acupuncture points on the skin can manipulate the treatment to improve the physiological function of the reproductive organs, thereby increasing the chance of success in artificial conception.

#### **4. Hormone drug effects**

Human sex hormones and pituitary

gland, liver and kidney function, blood circulation and sexual organs all have a close relationship with each other. Disability of any link can cause disability of the reproductive system. Because the human body is an autonomic organism when a certain link is disabled, such as lack or excess of sex hormones, it is not only a supplement of artificial sex hormones or an inhibitor can restore the autonomic function to work properly. It may cause other undesired side effects or complications. In the process of artificial conception, this phenomenon often occurs, causing a lot of discomfort for the human body. Acupressure can just replace or remove these undesirable reactions.

#### 5. Support for maternal and physical health

There are many problems in our daily life, such as getting colds, gastrointestinal diseases, headaches, insomnia, poor breathing, etc., or work stress, psychological and emotional distress, fear and anxiety, etc., They can be relieved by acupressure so that women can be in a comfortable body and mind. The comfortable body state helps to receive artificial pregnancy and implantation of fertilized eggs.

#### B. Fertilized egg after implantation

Generally, it is necessary to perform acupressure treatment after determining that the fertilized egg is successfully implanted into the uterine for at least three weeks. The acupressure treatment of pregnant women is different from the treatment of ordinary people. There are many acupuncture points that can cause danger. Therapists need more acupressure techniques and knowledge. They should be very careful when operating, so they are often treated by experienced healers. At this stage, the general transmis-

sion of "Qi" can give pregnant women the strength to cope with physical and mental stress, and can successfully nurture new life.

#### C. During pregnancy until production

During pregnancy, most of the medications are not recommended for pregnant women. For those pregnant women have fallen, trauma resulting from physical injuries, headaches, insomnia, etc., we usually use external medication. Those pregnant women need to endure the pain through the pregnant process. With the growth of the fetus, the abdominal muscles extraction and the compression of the diaphragm, heart, lungs and the gastrointestinal tract to the end of pregnancy. The kidneys increase the burden of urination, the lower limbs have heavy edema and thus slow the blood return. Blood pressure rise results in a headache, difficulty breathing, heart weakness. In the course of pregnancy, pregnant women may have past disease recurrence, or pregnancy-related symptoms, resulting in pregnant women suffering from illness. However, these symptoms can be relieved or soothed by acupressure treatment without the use of drugs, helping pregnant women to successfully through the pregnancy process and have safe production.

#### Clinical cases presentation

1. A woman who has been married for more than ten years in her forties has more than 10 experiences of artificial pregnancy failure, uterine injuries. Both physical and mental are exhausted. After more than one year of acupressure treatment and adjustment, an artificial pregnancy was successful, with twins

and smooth labor.

2. A woman in her thirties difficult to get pregnant after many years of marriage. The doctor diagnosed that the body is not full of blood and the uterus is not strong. After acupressure treatment until confirmation of the health of the body and the uterus, an artificial pregnancy is a successful and smooth labor.
3. A woman in her thirties is diagnosed with a retrograde uterus and cannot get pregnant. After acupressure adjusts the uterus, two children have been bred.
4. There are several cases in which women who have failed several times due to unexplained artificial pregnancy have successfully get pregnant after the acupressure treatment to adjust their body and uterus.
5. A married woman in her thirties with successful artificial pregnancy. After 32 gestational weeks, her legs were severely edema, difficult to move, difficult to breathe, heart weakness, high blood pressure, headache, and insomnia. Although the doctor recommended an immediate cesarean, she treated with acupressure. All symptoms disappeared within three days and deliver the baby for an expected period.

There are still too numerous pregnant women with artificial pregnancy to enumerate. This is the application of Qigong acupressure therapy in artificial conception. It can help the artificial pregnancy success with the following factors: (1) transmitting energy; (2) initiating human body repair mechanism; (3) activating the human body autonomic system; (4) improving the health

of the human body, especially the uterus; (5) regulating the function of tissues and organs without drugs; (6) maintaining and supporting physical and mental health.

## Discussion

Acupressure will not be able to intervene in the artificial pregnancy or IVF operations, such as administration of hormones, ovulation, egg retrieval, fertilization, and implantation of fertilized eggs. However, Qigong acupressure treatment can improve the health of the mother's overall body and improve the health of the uterus. As long as the therapist is skilled, it can promote the mother to prepare for artificial conception, she will be able to successfully pregnant. Acupressure can replace drugs, help pregnant women, especially when accidental injuries, illness, cold, gastrointestinal discomfort occur during pregnancy to relieve symptoms, restore to normal conditions. It is a safe, effective but without any additional invasive treatment. It will not affect the growth and development of the fetus or the possibility of teratogenicity.

However, acupressure is not a panacea but it has conditional restrictions. For example, genetic defects have limitations that cannot be repaired; if people's automatic system has the poor functional capacity or its autonomic repair, autonomic adjustment and reproduction mechanism failure or difficult to recover in time, the treatment will be longer, and this is not acceptable for the most of people. In addition, during the period of acupressure treatment, the reacting pain generated is not accepted by everyone.

Moreover, successful artificial conception relies on the functioning of the genital

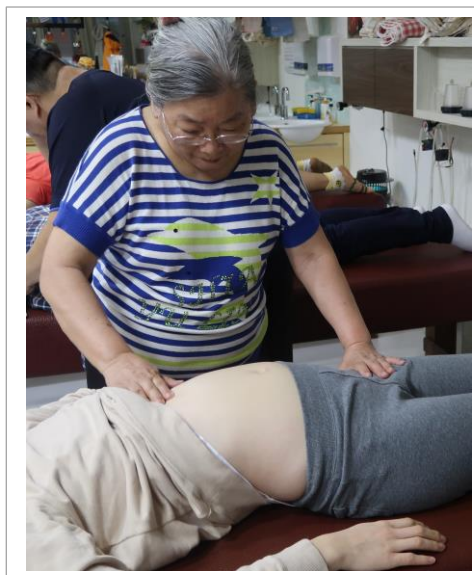
function in the human autonomic system. If the body organ is dysfunction, sex hormone has a deficiency, sperm-egg has defection, artificial fertility techniques are insufficient, it needs further technological improvement, objective environment changes, body/uterus improvement, sufficient energy to support embryo development, growth, and maintenance are required. Pregnant women's body, free from trauma, internal sensation, disease

and other injuries. These are worthy of further thinking and evaluation before artificial fertilization.

## Reference

Arthur C. Guyton and John E. Hall, Ying-Tung Lau, 2008. *Textbook of Medical Physiology*. Taipei: Elevier Pte Ltd.

### 穴壓治療對孕期婦女的協助







## 活動訊息

### 開課訊息

本學會不定期舉辦練氣、穴壓、拔罐等基礎訓練班，供學會會員參加研究學習，請隨時參閱本期刊最新消息，或 <http://lisahsieh.pixnet.net/blog> ； 及 <http://lqigong.pixnet.net/blog> 以取得詳細資訊。

### 最新消息

本《新醫學雜誌》期刊於 107 年 8 月 30 日創刊，以中、英並列方式向國、內外發行，本雜誌將作為各方學術研究論文發表的園地，也提供預防保健的健康知識和與民眾互動的醫學諮詢服務。

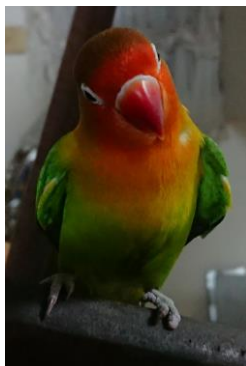
## E 諮詢

若您針對本刊物內容有任何的疑問，歡迎您隨時利用 E-mail 的方式與我們聯繫。我們將依序以 E-mail 方式回覆，並將回覆公開於下一期的刊物中。希望透過這個方式，能將更多的醫學資訊分享給更多的朋友們。來信請寄我們的 E 諮詢信箱 [acma20170803@gmail.com](mailto:acma20170803@gmail.com)。

## 邀稿

歡迎與本刊理念相同朋友們來投稿，我們將尊重且珍惜每一份稿件，同時我們也將對每個稿件做篩選，保留是否出刊的權力，並選擇最為適合的時機刊出。有興趣的朋友歡迎將稿件直接寄送到 [acma20170803@gmail.com](mailto:acma20170803@gmail.com)，謝謝您的支持。





## News

The first volume of Journal of Neo-Medicine will be issued on 1th Jan 2019 in full English with supplementary Chinese version. Each volume will announce the updated news on Chinese traditional medicine with emphasis on Acupressure and Cupping.

## Course

The journal is also in alliance with the association entitled as “Acupressure and Cupping Association” that will open basic courses on Qi practicing, acupressure, cupping, and others in relation to TCM. Information on these courses is available from the website: <http://lisahsieh.pixnet.net/blog> or <http://lqigong.pixnet.net/blog>.

## Consultation

This journal also offers consultations on the themes related to the field of *Neo-Medicine*. Contact us by Email: [acma20170803@gmail.com](mailto:acma20170803@gmail.com).

## Call for Papers

*The Journal of Neo-medicine* is to publish evidence-based articles pertaining to preventive science, health care, health preserving, and medical care in relation to traditional Chinese medicine (TCM) and also other beyond TCM. The articles connecting orthodox medicine with TCM in the principle of evidence-based medicine (EBM) would be highly recommended.

The contexts articles published in Journal of Neo-medicine include “Case report”, “Original articles”, “Focus”, “Special report”, “Special Column”, and “News”.

Guideline for the submission of manuscript to Journal of Neo-medicine is available from the website: <https://sites.google.com/view/acataiwan/neo-medicine>

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