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特別報導
肩頸及下背痛

皮膚上的瘀青和拔罐後印記的比較
針療法與穴壓治療法對下背痛診斷與治療的比較
肩臂與尾椎引起的下背痛
我所知道的減肥

穴壓與拔罐學會
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## Contents

# 皮膚上的瘀青和拔罐後印記的比較

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皮膚表面上的傷痕，產生原因概略有兩種：1. 外來撞擊力，如不能控制的跌倒、碰撞等；和 2. 自主允許外力所給予的 傷害，如打針、拔罐等。由於兩者對人體皮下的器官、組織及血管等破裂出血的傷害程度不同，皮膚表面上所產生的痕跡也不同，但是各有其特性，可以用肉眼分辨。重大開放性傷口，應速送醫療機構處理，本文僅比較可以觀察皮表痕跡的變化。

## 一、外來撞擊力下皮膚表面的印記

在非開放性傷口中，皮膚表面上會呈現受傷印記，一般是非本人蓄意所為，在跌、打、碰撞時皮下組織及血管破裂出血的傷痕。例如：(1) 腿部遭受外力打擊，呈現血管破裂的大範圍瘀青斑點，如圖一。[1](2) 小腿遭受小範圍器械鈍傷的瘀青斑點，如圖二。(3) 手臂受傷內出血後誤用抗凝血劑造成嚴重大範圍的瘀血，如圖三。其瘀血程度於十天後仍未消褪，如圖四。

以上三例均是由外力引起皮下組織及血管破裂出血的傷害，其在皮膚表面上所產生的痕跡，可以用肉眼去辨別其發生的原因和嚴重度，這些由意外外力引起皮下組織及血管破裂出血的傷害，一般病患本人不能主導控制。而拔罐後的印記，卻是人為蓄意在皮膚表面上，使用負壓 造成皮下組織或血管破裂所產生出血的傷害印記。

## 二、拔罐後皮膚表面上的印記

拔罐是在主觀允許之下，人為蓄意的在皮膚表面上進行對人體負壓作用。由於負壓對人體器官、組織、血管的傷害作用明確，其可能造成的傷害是可以預知的，所以可以由拔罐後皮膚表面上的印記來判讀發生的原因和嚴重度。幸好拔罐是局部小範圍，除了操作技術失誤外，影響拔罐對組織及血管造成傷害有限，通常很少有即時重大的影響，卻也因此而被受忽略。

拔罐對器官、組織及血管造成的傷害，正如拔罐的機制是將器官、組織及血管中發炎的成分吸引移出病灶的位置，以方便組織快速的修護和更新，亦即關係到拔罐的安全性和有效性。所以，拔罐主要的成功因素，即是罐內負壓數值的決定，和拔罐的部位，前者代表在不傷害人體的程度內，儘可能移除代謝廢物，而後者代表在正確的位置上，有效的移除代謝廢物，而不傷害臨近正常的組織。這是因為人體各個部位對負壓的耐受度差異甚大，所造成的傷害影響不同，影響吸取能力，因此，有必要利用可以用肉眼分辨的拔罐後印記，來討論和比較

[1] 本文圖一至圖十五置於頁 3-5。

此兩因素所代表的意義。

（一）罐內負壓的數值大小

人體各個部位對負壓的耐受度不同，根據實驗其最高負壓數值保障安全性，最低負壓數值維持其有效性，在此範圍中，可以因個人身體條件作必要的微調(謝麗貞，知音出版社，2018)。

（二）拔罐位置的選擇

為有效移除病灶中的代謝廢物而不傷害臨近正常的組織，必需要在正確有病的區域中進行拔罐，可以最大吸取出病變的組織液來由健康表皮協助快速代謝。因此拔罐之前必需要瞭解病變給予正確的診斷，再依次找出正確的人體解剖位置，然後進行拔罐，確保有效吸取出病變成分而不傷害臨近正常的組織。

雖然在安全且有效的負壓數值範圍下，在正確病灶位置上拔罐，然後去比較所得的拔罐後印記才有意義。不過目前通用的拔罐器材設備，大多沒有負壓值的控制，也沒有對病變給予正確診斷以決定病灶的位置，多使用經絡的俞穴或用阿是穴來拔罐，因此當作拔罐後印記的比較基礎絕對存在偏差。但是在不同條件下能得到的拔罐後印記的影像，仍舊可以給予我們相當多的信息。

使用市面上最通用的抽氣式拔罐器，在腹部肚臍上方的中脘穴上拔罐。實驗者為健康年輕的男性，儘其力抽取出罐內空氣形成負壓(真正負壓值無法測量)，所得的拔罐後印記，如圖五：影像顯現如罐口大小的圓形，其中布滿紅色斑點。這些斑點正好是皮膚的毛細孔的位置，也就是毛細孔微血管破裂出血的現象，其原因可能是壓力過大造成傷害。換句話說，拔罐作用的位置並未深入體的器官或組織，而是作用在表皮。

使用可控制壓力的「瞬吸可調式吸引力拔罐裝置」(謝麗貞，知音出版社，2017。)(張美意等，新醫學雜誌，2018)，實驗者為健康年輕的男性，一樣在腹部肚臍上方的中脘穴上拔罐，所得的拔罐後印記，如圖六：影像顯現如罐口大小的圓形，有明顯的紅色邊緣，其中呈淡淡的紅色，並沒有毛細孔微血管破裂出血的現象，因為罐內負壓值控制在安全範圍內，不會造成壓力過大的傷害。而且罐印中間平常無異狀。

穴道代表人體內的器官及組織在體表的出口，不但可以顯現該器官或組織的健康狀況，也是操控出入口，左右器官及組織的修護、調節和生殖。利用穴道在拔罐前偵測病變的狀況和病灶的位置，再加以調控其對器官及組織的影響方向，可以促進修護的功能。由於拔罐只是一種將病變的組織液吸取出來，以利健康的表皮協助快速代謝恢復正常，所以拔罐前給予穴壓不但用來確認病灶的位置，還能夠使拔罐後的印記顯現出肉眼可以評估的活體圖像，方便作為診斷、治療、預後和追蹤的依據。

穴壓對拔罐的影響可以用以下兩張示意圖說明。

圖七表示輕症之「氣—穴道—組織—拔罐關係示意圖」，繪出拔罐時的剖面相。罐內中心的最高點是穴壓點，其下組織成分因為拔罐時負壓吸力而凸上，將病變的組織液吸取出至表皮來；其所呈現的皮膚的顏色隨健康狀

況由淡至深色—健康良好者印記顏色略紅，很快即恢復原本之健康膚色，如圖八;稍有輕症者其印記顏色較紅，需 1 天左右可恢復至原本之健康膚色，如圖九。

圖十表示重症之「氣—穴道—組織—拔罐關係示意圖」，繪出拔罐時的剖面相及病變的組織成分被集中吸取出至表皮穴道口來的情況。其印記所呈現的皮膚顏色隨組織病變的成分和嚴重程度，由深、濃以及不同皮表的斑點或色塊至更深、濃的顏色 (謝麗貞，知音出版社，2018)。印記顏色共分 1 至 5 級(陳秀熙等，2019)。

## 肩背傷害者拔罐後印記之比較

經穴壓治療及使用「瞬吸可調式吸引力拔罐裝置」之車禍重度肩背傷害者拔罐後的印記，如圖十四。

使用傳統抽氣式拔罐器之過度運動肩背傷害者拔罐後陳舊的印記，無法測量罐內負壓值，拔罐部位估計採用疼痛點，如圖十五。

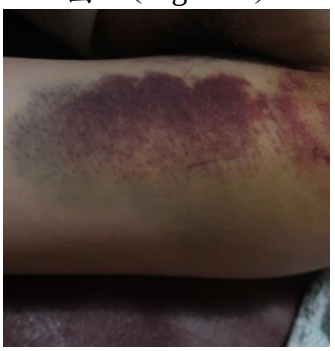
## 結論

皮膚上及拔罐印記的比較，必需在相同的基礎條件下所形成的才有意義。本文所比較的是在使用「傳統抽氣式拔罐器」或「瞬吸可調式吸引力拔罐裝置」兩種器材之下，討論其印記的的差異，同時也比較其罐內負壓值和拔罐的位置的決定，因為這兩個因素正好關係到拔罐的安全性和有效性。

圖一(Figure 1)

圖二(Figure 2)

圖三(Figure 3)

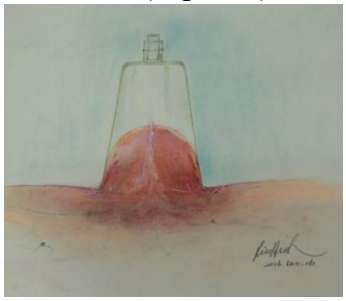


圖四(Figure 4)

圖五（Figure 5）

圖六（Figure 6）

圖七(Figure 7)



說明：輕症之「氣—穴道—組織—拔罐關係示意圖」
(Mild case "diagram of Qi-Acupoint-Tissue-Cupping Relation-ship")

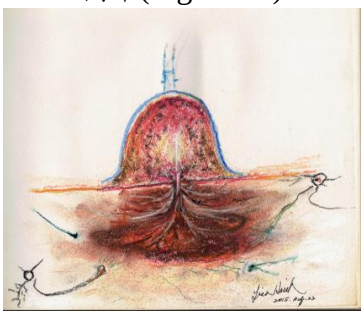
圖八（Figure 8）

說明：健康良好者中脘之印記
(The mark of the healthy person)

圖九(Figure 9)

說明：健康略遜者中脘之印記
(The Mark of the less healthy person)

圖十(Figure 10)



說明：重症之氣—穴道—組織—拔罐關係示意圖
(Severe case "diagram of Qi-Acupoint-Tissue-Relationship")

圖十一(Figure 11)

說明：組織病變中重度者中脘之印記
(The mark of sacrifice of moderate to severe tissue lesions)

圖十二(Figure 12)

說明：陳舊重度組織病變者中脘之印記
(The mark of 中脘 in old severe tissue lesions)

圖十三(Figure 13)

說明：新發生重度組織病變者之印記
(The marks of newly severe tissue lesions)

圖十四(Figure 14)

說明：經穴壓治療及使用「瞬吸可調式吸引力拔罐裝置」之車禍重度肩背傷害者拔罐後的印記
(After cupping imprint of a severe shoulder and back injuries in a car accident.)

圖十五(Figure 15)

說明：使用傳統抽氣式拔罐器之過度運動肩背傷害者拔罐後陳舊的印記，無法測量罐內負壓值，拔罐部位估計採用疼痛點。
(It shows excessive marks on the shoulder of an over-worked shoulder-wound injured person using a traditional suction cupping device whose in-cup negative pressure value can not be measured. The pain point is estimated and used as the cupping position.)

# Comparison of bruising on the skin and imprinting after cupping

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There are two possible causes of scars on the skin surface: 1. External impact forces, such as uncontrollable falls and collisions; and 2. Injuries from external forces, such as injections, cupping, etc. Because the two have different degrees of damage to the rupture and bleeding of subcutaneous organs, tissues, and blood vessels, the traces on the surface of the skin are also different, but each has its own characteristics and can be distinguished with the naked eye. Major open wounds should be sent to a medical institution for treatment. This article only compares the changes in the skin surface traces.

## I. The imprint of the skin surface under external impact

In non-open wounds, marks of injury appear on the surface of the skin. Generally, it is a mark that is not intentionally made by the person. The subcutaneous tissue and blood vessels rupture and bleed when they fall, hit, or collide. For example: (1) The leg was hit by an external force, showing a large range of bruises with ruptured blood vessels, as shown in Figure 1；[1] (2) Bruise spots on the calf suffered a small-scale instrument blunt injury, as shown in Figure 2； (3) Misuse of anticoagulant caused severe bleeding in the arm after bleeding inside the arm, as shown in Figure 3. The degree of stasis did not fade after ten days, as shown in Figure 4.

The above three cases are caused by external force caused by subcutaneous tissue and blood vessel rupture and bleeding. The traces on the skin surface can be identified by the naked eye with the cause and severity. These accidental external forces caused subcutaneous tissue and blood vessel rupture. The bleeding injury cannot be controlled by the patient. However, the imprint after cupping is an artificial imprint on the surface of the skin. The use of negative pressure to cause bleeding from subcutaneous tissue or blood vessel rupture.

## II Imprints on the surface of the skin after cupping

Cupping is subject to the subjective permission, and artificially carries out negative pressure on the human body on the surface of the skin. Since the negative pressure has a clear damage to human organs, tissues and blood vessels, the possible damage can be predicted, so the cause and severity of the occurrence

[1] Figure 1 to Figure 15 of this article are on pp. 3-5.

can be judged by the imprint on the skin surface after cupping. Fortunately, cupping is a small area, except technical errors, cupping has limited damage to tissues and blood vessels and few immediate and significant impacts, yet they are ignored.

The damage caused by cupping to organs, tissues and blood vessels is just as the mechanism of cupping is to attract the inflammatory components in organs, tissues and blood vessels out of the location of the lesion to facilitate the rapid repair and renewal of the tissue, which is related to the safety and effectiveness of cupping. Therefore, the main success factor of cupping is the determination of the negative pressure value in the cup and the place to be cupped. The former represents the removal of metabolic waste as much as possible without harming the human body, and the latter represents being in the correct position that effectively removes metabolic waste without harming adjacent normal tissue. This is because various parts of the human body have very different tolerances to negative pressure, and the damage caused by them is different, which affects the absorption capacity. Therefore, the post-cupping mark can be distinguished with the naked eye for discussion and comparison the meaning of these two factors.

**First, the value of the negative pressure in the cup**

Different parts of the human body have different tolerances to negative pressure. According to the experiment, the highest negative pressure value guarantees safety, and the lowest negative pressure value maintains its effectiveness. In this range, the necessary fine adjustments can be made according to individual physical conditions (Hsieh Li-Chen, Jiyin Press, 2011).

**Second, Selection of cupping position**

In order to effectively remove the metabolic waste in the lesion without damaging adjacent normal tissues, it is necessary to perform cupping in the correct diseased area, and the diseased tissue fluid can be sucked out to the maximum for rapid metabolism assisted by the healthy epidermis. Therefore, it is necessary to understand the lesion and give a correct diagnosis before cupping, and then find out the correct anatomy position of the human body in turn, and then perform cupping to ensure that the lesion components are effectively sucked out without damaging adjacent normal tissues.

In a safe and effective range of negative pressure values, cupping at the correct lesion location, and then comparing the resulting cupping marks makes sense. However, most of the current cupping equipment and device do not control the negative pressure value, and do not give a correct diagnosis of the lesion to determine the right location of the lesion. There is absolutely a deviation in the basis of comparison. But the images after cupping can be obtained under different conditions can still give us a lot of information.

The use the most common cupping device on the market, cupping on the middle acupoint above the belly button acupoint,（中脘穴）. The experimenter was a healthy young male, and did his best to extract the air in the cup to form a negative pressure (the true negative pressure value cannot be measured). The

resulting cupping mark is shown in Figure 5, full of red spots. These spots are exactly the position of the pores of the skin, which is the phenomenon of rupture and bleeding of the capillary blood vessels, which may be caused by excessive pressure and causing injury. In other words, the cupping effect does not go deep into the body's organs or tissues, but acts on the epidermis.

The use of pressure-controllable “instantaneously adjustable suction cupping device” (Hsieh Li-Chen, Jiyin Press, 2011)，(Zhang Meiyi et al., New Medical Journal, 2018) on also above the belly button acupoint of a healthy young male, the resulting imprint after cupping is shown in Figure 6. The image appears as large as the cup size, with obvious red edges, which is pale red, and there is no rupture of capillary micro-vessels and bleeding, because the negative pressure value in the cup is controlled within a safe range, which will not cause excessive pressure injury and there is usually no abnormality in the middle of the pot printing.

**Influence of Acupressure before Cupping on Imprint after Cupping**

Acupoints represent organs and tissues in surface of the body. Not only can they show the health of the organs or tissues, they also control the entrance and exit, and control the repair, regulation and reproduction of organs and tissues. The use of acupressure on points to detect the condition of the lesion and the location of the lesion before cupping, and then to adjust the direction of its influence on organs and tissues when repair. Because cupping is only a way to suck out the diseased tissue fluid to help the healthy epidermis to assist the rapid metabolism to return to normal, giving acupressure before cupping can not only confirm the location of the lesion, but also make the marks after cupping show a living body that can be evaluated by the naked eye. The images can be used as a basis for diagnosis, treatment, prognosis and tracking.

The effect of acupressure on cupping can be illustrated with the following two diagrams.

Figure 7 shows the diagram of "qi-acupoint-tissue-cupping relationship" for mild cases. The highest point in the center of the cup is the point of acupressure, and the underlying tissue components are convex due to the negative pressure suction when cupping, and the diseased tissue fluid is sucked out to the epidermis. The color of the skin presented varies from light to dark according to the health condition. The color of the mark of the healthy person is slightly red, and the original healthy skin color will be restored soon, as shown in Figure 8; the color of the mark of the milder person will be red, and it will take about 1 day t o restore the original healthy skin color, as shown in Figure 9.

Figure 10 shows the diagram of "qi-acupoint-tissue-cupping relationship" for severe cases, which depicts the cross-section phase and the tissue components of the lesion when they are drawn out to the epidermal acupoint exit during cupping. The skin color presented by its imprints varies from deep, thick, and spots or patches on different skin surfaces to deeper, thicker colors depending on the composition and severity of tissue lesions (Hsieh Li-Chen, Jiyin

Press, 2017). The color of the stamp is divided into 1 to 5 grades (Chen Hsiu Hsi et al., 2019). Figure 11 shows the mark of sacrifice of moderate to severe tissue lesions；Figure 12 shows the mark of 中脘 in old severe tissue lesions while Figure 13 shows marks of newly severe tissue lesions.

**Comparison of After Cupping Imprints on Shoulders and Back Injuries**

Figure 14 shows marks after cupping for those with severe shoulder and back injuries in a car accident using acupressure therapy and the "instant suction adjustable attractive cupping device" for cupping.

Figure 15 shows excessive marks on the shoulder of an over-worked shoulder-wound injured person using a traditional suction cupping device whose in-cup negative pressure value can not be measured. The pain point is estimated and used as the cupping position.

**Conclusion**

Comparisons on the skin and cupping marks must be made under the same basic conditions to be meaningful. This article compares the difference between the imprint and the cupping negative pressure and cupping using two types of equipment: "conventional suction cupping device" or "instantaneously adjustable suction cupping device", since the negative in-cup pressure and the location for cupping are just related to the safety and effectiveness of cupping.

# 針療法與穴壓治療法對下背痛診斷與治療的比較

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## 摘要

下背痛多發生在青壯年體力勞動者，長期從事彎腰工作的人，和平時缺乏鍛煉肌肉不發達的人，常會患此病。下背痛的治療，以徒手療法最為常見。徒手療法中所使用的部位或穴道有其相似性，但所干預的器官、組織及診斷和治療的方法卻相當不同。今以最為常見的兩種治療法：針療法和穴壓治療法來說明診斷和治療方法的差異。

關鍵詞：下背痛、徒手療法、針療法、穴壓治療法

下背痛多發生在青壯年體力勞動者，長期從事彎腰工作的人，和平時缺乏鍛煉肌肉不發達的人，常會患此病。腰部急性損傷，多由於腰部活動時姿勢不正確，用力不當，或用力過度，或在搬運抬扛重物時，肌肉配合不協調，以及跌、仆、閃、挫，使腰部肌肉、韌帶受到強烈的牽扯、扭轉而致損傷。扭傷後立即出現典型的腰痛，疼痛一般較劇烈，呈持續性，部位局限，患者多能指出疼痛部位。傷重者完全不能活動，甚至不能翻身、起床、咳嗽、深呼吸時疼痛加劇。

下背痛的治療，除手術以及用止痛藥和肌肉鬆弛劑口服外，以徒手療法最為常見，有復健、穴壓、針灸、推拿、指壓、整脊、按摩等等。徒手療法中所使用的部位或穴道多有相似，但所干預的器官、組織及診斷和治療的方法卻相當不同。今以最為常見的兩種治療法：針療法和穴壓治療法來說明診斷和治療方法的差異。

## 一、針療法

針刺治療下背痛，並無專門或特定的傳承醫學典籍可供參考，比如說何種針法是專為治療下背痛，應該如何使用針或用那些穴道去對治之。黃維三所編著《針灸科學》(1) 和高樹中所著《一針療法》(2)是一般針刺法常用的準則。

對於下背痛，《針灸科學》一書中列出有 1. 三焦俞：位於背部第十三椎（第一腰椎）下，兩旁去脊各一寸五分。肩背急、腰脊強、不得俯仰；2. 腎俞：位於背部第十四椎（第二腰椎）下，兩旁去脊各一寸五分；3. 第二、三腰椎橫突起間，主治腰痛；4. 氣海俞：主

治腰痛；5. 大腸俞：主治腰痛；6. 關元俞：主治風癆腰痛。另外在《針灸科學》書中的經穴各論篇(第 307~309 頁)裡，常見疾病之針灸治療篇中，將相關下背痛分類別為神經痛，列出有病因、證狀、療法等，如以下：

（一） 坐骨神經痛 (腿痛)

**病因**：坐久、立久、疲累之後感受風寒潮濕，或婦人子宮病分娩後，以及淋菌、梅毒之傳染，腫傷外傷滲出物之壓迫所致。

**療法**：先針環跳、委中二穴，使酸麻直達足跟甚至達足尖，疼痛即可立止；如仍未癒，加刺殷門、足三里、三陰交、崑崙、丘墟、陽陵泉等穴，大約五六次即獲根治。

（二） 坐骨神經麻痺 (痿躄)

**病因**：：感受風寒濕氣為本病最多的原因，或為神經炎之後期及傳染病所累及。

**證狀**：下腿不能屈曲，上腿向外旋轉困難，足之各種運動完全喪失，行走障礙。

**療法**：針環跳、承扶、委中、三陰交、絕骨等穴，使酸麻自臀部直達足，或加灸命門、腎俞、足三里。

（三） 肌肉痛如腰肌痛（腰痛）

**病因**：老年、腎虛、嗜慾過度、婦人產後用力持重，或受風寒濕氣，均易患之。

**證狀**：腰部肌肉疼痛，脊椎向患側彎曲，軀幹不能前後俯仰。

**療法**：針腎俞、志室、環跳、委中、行間，加灸二三壯，極易痊癒。

（四） 關節後直及牽縮中的肌關節如股關節及股關節等的病因，證狀及針灸用穴。

**療法**：環跳、風市、委中、居髎；

以上治療的症狀多以腰痛含蓋下背疼痛之諸病癥，所使用的穴道多採一穴治痛，也多在腰椎及旁開一寸五分之穴位，另再採環跳、委中、足三里、三陰交、崑崙、五墟、陽陵泉等穴。再觀其相關病因，多和身體內的臟腑疾病有關而所引起的腰痛，和一般所謂因姿勢錯誤、用力不當，勞累外傷等引起的肌肉骨骼系統的急慢性下背痛似有不同。因此其診斷治療非以下背痛為主，並未對下背痛的病因和原由加以診斷，其治療也多遠端取穴為主，唯亦可達解除下背疼痛的效果。

而在高樹中所著《一針療法》中，則列出有急性腰扭傷的針療法，所常採用的穴位有：人中、後溪、齦交、手三里、大沖及手腕上腰痛一穴至腰痛五穴，強調其用穴治療急性腰扭傷，能迅速緩解疼痛，解除局部活動障礙。又其針刺法主要有以下特點：1. 用穴廣泛，並有繼續增多的趨勢；2. 多遠道取穴，且多取三陽經穴，所取穴位多在有壓痛、結節、酸脹等明顯反應處；3. 大都強調刺激，用瀉法，但也有例外；4. 皆強調針後配合腰部活動，遠道取穴時尤其如此；以及 5. 對於獲取有效機理可用「經脈所通，主治所及」和全息對應來解釋。其謂：在臨床上應用此一針療法去治療急性腰扭傷，在經絡辨證的指導下，常一次即有顯著效果，一到三次即可治癒。

《一針療法》專注於急性腰扭傷，其謂急性腰扭傷是針灸臨床的常見之病，指的是腰部肌肉、筋膜、韌帶、椎

間小關節等的急性損傷，俗稱閃腰、岔氣。多發於青壯年體力勞動者，長期從事彎腰工作的人，和平時缺乏鍛煉肌肉不發達的人，常患此病。腰部急性損傷，多由於腰部活動時姿勢不正確，用力不當，或用力過度，或搬運抬扛重物時，肌肉配合不協調，以及跌仆閃挫，使腰部肌肉、韌帶受到強烈的牽扯、扭轉而致損傷。扭傷後立即出現典型的腰痛，疼痛一般較劇烈，呈持續性，部位局限，患者多能指出疼痛部位。傷重者完全不能活動，甚至不能翻身、起床、咳嗽、深呼吸時疼痛加劇。其所使用穴位達 41 處之多，除臨近傷害處的用穴外，且含蓋遠端用穴，並將致痛的原因標明，正是急性下背痛常見的傷害。至於長久成因的慢性下背痛則未加以偵測診斷，其治療也多遠端取穴以達緩解下背疼痛的效果。

## 二、穴壓治療法

穴壓治療法是使用指掌的氣能，以氣場感應及穴道偵測兩種方法，在下背上尋找出造成疼痛的病因並啟動人體自動修護機制給予更正治療使之復原因而解除疼痛。除了因內臟病變牽引出腰痛，如臟腑癌症、腎病變、骨病變、或婦科疾病引起的腰痛外，一般下背痛的成因主要有兩種：1. 因長期勞動過度、姿勢不對、用力不當造成人體韌帶、肌腱、肌肉、骨骼本身受傷變形而引起的傷害疼痛；以及 2. 車禍外傷、打擊碰撞、跌倒下墜等因外力引起的傷害。唯有明白了解下背結構的傷害，將之修復成正常的狀態，並且恢復正常的運作功能，才算是成功的治療下背痛。所以穴壓治療法是要去發現下背肌肉及骨骼造成受傷的動作或成因，不但要修復肌肉骨骼的傷害，更要去除造成傷害的動作且更正避免之，才算徹底的治療。

穴壓治療法所採用穴道比針療法廣泛，且以人體解剖學上的組織為病灶的根據。穴壓治療法雖然不使用針，而是以指力所釋出的氣能代替針的刺激，使用治療者本身所練得的內氣，經過穴道給予點、按、壓以調整穴道多相式的功能去移除致使下背痛的原因，解除肌肉骨骼的傷害，同時導正肌肉骨骼關節返至正常解剖位置，施以氣能促進組織器官進行自我調整、修補和更新，以恢復正常的運動功能。

穴壓療法診斷下背痛的原理重點在於兩個線索：1. 只有肌肉、肌腱和連結骨骼上骨膜含有神經在不正體位時，或發炎腫脹壓迫神經時才會疼痛；以及每一塊肌肉和骨骼都有其一定的動作方向和角度，換句話說，每一塊肌肉和骨骼都有其能夠執行的限定動作，超過限定範圍時就發生錯位而失去活動的功能。因此，就診斷而言，下背痛的產生的原因可分為兩種：

（一）自身所產生的傷害是在肌肉和骨骼能夠執行的動作內造成的，也就是包括長期過度勞動、姿勢不對、用力不當而造成人體韌帶、肌腱、肌肉、骨骼本身受傷、變形而引起的傷害及疼痛；以及

（二）外力所產生的傷害是在肌肉和骨骼不能執行的動作內，所造成的傷害及疼痛，其因所受外力能量的大小，對肌肉和骨骼會形成不同程度的損壞、變形、扭曲、折斷等等，可以是輕微到相當嚴重動作功能的喪失，牽扯關節、肌肉、

韌帶、肌腱而引發疼痛。

一但查明了傷害及疼痛的原因，就可以進行組織器官的修復，穴壓治療的原理和技術如下：

1. 確定肌肉和骨骼所產生的傷害和功能損失的範圍，勾畫出其受傷時的動作和所受損傷外力能量的大小，來確定傷害對人體傷害的深淺程度，是否能解釋下背疼痛致病的原因。如果是則繼續治療，如果不是，應再偵查以免造成錯誤判斷而生成不當的醫源性傷害，讓病患的組織器官更為受傷。。
2. 以解剖學上的肌肉和骨骼來說明疼痛產生的病灶處，將受到的傷害由淺至深，由點至面再至體，逐步調整治療。
3. 使用一般解剖位置以及通用的穴道位置名稱說明治療的著力處，作為溝通和記錄之用。
4. 以治療者的指力氣能(內氣)經穴道去除肌肉骨骼的受傷後應去除的廢棄組織代謝物，以加速人體的修補。
5. 任何急、慢性傷害的成因，所造成傷害的深淺程度和範圍不同，因此治療的範圍不僅是某一穴道點，而是相關所有的肌肉群和骨骼，依其嚴重度和大小範圍全面治療，才可能令病患肢體功能完成恢復健康。
6. 穴壓治療後若配合拔罐將傷後待排除的不良組織、代謝廢棄物自病灶位置快速拔除，可以加速肢體功能的恢復。
7. 治療者的氣能(內氣)經穴道輸予病人，可提供病人額外的氣能去啟動快速的自動修復再生機制，加速組織器官的恢復和痊癒。

所以，在穴壓治療法之下，下背痛有其界定的範圍，可由解剖學中知名的各條肌肉、肌腱、韌帶和骨骼清楚地標示出所遭受到傷害的位置、方向、角度和應該使用的治療位置和面積的大小，如此，就能有效的治癒之。在組織器官修補完成後，原先致傷害的原因可以完全清除，恢復原狀不會再發，其成效極為顯著，屬於本穴壓與拔罐學會歷卅多年來的臨床治療研究下所彙整的成果，並曾以數篇論文發表在國際著名的期刊中，證明其有效性及安全性(3,4)。

## 三、針療法和穴壓治療法的比較

在技術操作上兩種方法的差別有：

1. 工具：針療法採用針；穴壓治療法採用指力氣能(內氣)
2. 用穴：針療法根據書籍所列症狀下所建議採用的穴位；穴壓治療法採用氣場感應和穴道偵測所探查到致病傷害原因，追根究底找出層層傷害的組織器官所需要使用的穴位。通常穴位的範圍不只是一點或一個針孔，而是有相當大的面積，因肌肉骨骼的位置和運動的範圍而定。
3. 治療時間：針療法要留針需時較長；穴壓治療法用指力點、按、壓，每次治療時間僅需約 5 分鐘，不必留針。
4. 安全性：針療法是侵入性治療法，身體上許多部位不可下針；穴壓治療法是非侵入性，較為安全，全身部位都可以施以治療。
5. 有效性：相對而言，穴壓治療法較為迅速有效，對下背痛有已發表的學術論文證明其有效性和安全性。

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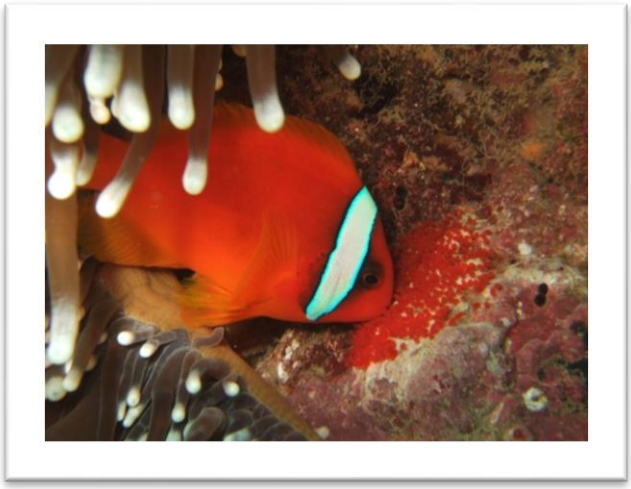

小丑魚與海葵

—資深海底攝影師 Jenny Lin 提供

# Comparison of Acupuncture and Acupressure for the Diagnosis and Treatment of Low Back Pain

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## Abstract

Low back pain often occurs in young and middle-aged manual laborers. People who have long been engaged in bending work, and people who lack muscle development often develop this disease. The most common treatment for low back pain is alternative therapy. The areas or acupuncture points used may similar, but the organs, tissues, and methods of diagnosis and treatment are quite different. This article intents to illustrate the differences in diagnosis and treatment between two most common therapies: acupuncture and acupressure.

**Key words:** low back pain, alternative therapy, acupuncture, acupressure

Low back pain often occurs in young and middle-aged manual workers, people who have been engaged in bending work for a long time, and people who lack muscle exercise. Acute waist injury is usually caused by incorrect posture, improper or excessive force during the movement of the waist, or uncoordinated muscle coordination when carrying heavy weights, as well as fluttering, which makes the waist muscles and ligaments strongly involved and twisted, and causes damage. A typical low back pain occurs immediately after a sprain. The pain is generally severe, persistent, and localized. Patients can usually indicate the pain. The severely injured patients were completely incapable of moving, and could not even turn over, get up, cough, or exacerbate pain during deep breathing.

For treating low back pain, in addition to oral use of painkillers and muscle relaxants or surgery for severe cases, freehand therapy is the most common treatment, including rehabilitation, acupressure, acupuncture, massage, chiropractic and so on. The areas or acupoints used in these treatments look similar, but the technique for diagnosis and treatment and organs and tissues interfered are quite different. In this article, the two most common treatments: acupuncture and acupressure are used to illustrate the differences in between.

## I. Acupuncture

There are no specific traditional Chinese medical guides for treating low back pain, such as which point(s) is to be used to diagnose or treat. The Huang-Weisan's "Acupuncture Science" (黃維三，《針灸科學》) (1) and Gao-Shuzhong's "One needle Acupuncture Therapy" (高樹中,《一針療法》) (2) are the most common books for guidelines.

In "Acupuncture Science", only the followings are listed (1) Sanjiao-shu (三焦俞) to treat acute shoulder and back discomfort、lumbago and body unable to be pitched; (2) Shen-shu(腎俞) for pain relief; (3) spine process in between the second and third lumbar vertebrae is to treat lumbar pain; (4) Qihai-shu (氣海俞), (5) Dachang-shu (大腸俞) are also used for treatment; (6) Guanyuan-shu (關元俞) is for treating windy back pain. In its chapter of "Common Acupuncture Treatment" (pp.307-309), low back pain is regarded as neuralgia and classified by cause and symptoms as followings:

**(1) Sciatica (leg pain)**

**Cause:** Sitting or standing for a long time, tired and feeling the cold and damp, or the woman's uterine disease after delivery, and the infection of gonorrhea and syphilis, swelling and trauma exudate.

**Symptoms:** Since the back pain started along the back of the hips and thighs, reaching the knees and lower legs to the feet, there is a radial pain, which increased sharply at night. The patient flexed his thighs and knees slightly when supine, and also flexed his knees when walking, walking on toes, or straighten legs, the pain is severe.

**Therapy**: Acupuncture on acupoints of Huan-Tiao (環跳) and Wei-Chung (委中), make the sore hemp reach the heel or even the tip of the toe, and the pain can stop immediately. If it is not healed, add acupoints of Yin-Men (殷門), Tsu-San-Li (足三里), San-Yin-Chiao (三陰交), Kun-Lun (崑崙), Chiu-Hsu (丘墟), Yang-Ling-Chuan (陽陵泉) pain is to be cured about five or six times.

**(2) Sciatic nerve palsy**

**Cause**: Feeling the cold and humidity is the most common cause of the disease, or it is affected by the post-neuritis and infectious diseases.

**Symptoms**: The lower leg cannot be flexed, the upper leg is difficult to rotate outwards, all kinds of movements of the foot are completely lost, and walking obstacles.

**Therapy**: Acupuncture on acupoints of Huan-Tiao (環跳), Cheng-Fu (承扶), Wei-Chung (委中), San-Yin-Chiao (三陰交), and Jue-Kuang(絕骨), so that the sore hemp can reach the foot directly from the hips.

**(3) Muscle pain (low back pain)**

**Cause**: Old age, kidney deficiency, excessive cravings, women's postpartum stress, or wind and humidity are

all susceptible.

**Symptoms**: Pain in the back muscles, bending of the spine toward the affected side, and inability to tilt the trunk forward and backward.

**Therapy**: Acupuncture on acupoints of Shen-shu(腎俞), Chih-shih(志室), Huan-Tiao (環跳), Wei-Chung (委中), and Hsing-Chien(行間).

**(4) Muscular joints**

Muscular joints in posterior such as femoral joints and joints that are straight and retracted. **Therapy**: Acupuncture on acupoints of Huan-Tiao (環跳), Fung-Shih(風市)、Wei-Chung (委中) and Chu-Liao(居髎).

Symptoms mentioned are lumbago mainly caused by internal organ diseases and the so-called acute or chronic low back pain of the musculoskeletal system caused by posture errors, improper exertion, fatigue and trauma. There is one main treating acupoint each located close to lumbar spine accompanied by a few acupoints on leg mostly Huan-Tiao (環跳), Wei-Chung (委中), Tsu-San-Li (足三里), San-Yin-Chiao (三陰交), Kun-Lun (崑崙), Chiu-Hsu (丘墟), Yang-Ling-Chuan (陽陵泉). Therefore, the etiology and causes of low back pain are not diagnosed and acupuncture, not based on the causes derived to back pain, is conducted on acupoints at the distal end of leg, but it can also relieve the low back pain.

In "One needle Acupuncture Therapy" written by Gao-Shuzhong, acupuncture treatments for acute lumbar sprains are listed. The acupoints used are commonly Jen-Chung (人中), Hou-His (後溪), Yin-Chiao(齦交), Shou-San-Li(手三里), Tai-Ch'ung(大沖), and five back pain points on the wrist, emphasizing that the use of these acupoints to treat acute lumbar sprains can quickly relieve pain and local movement disorders.

His method has the following characteristics: (1) Acupoints are widely used, and to continue to increase in number; (2) Long-distance acupoints are used mainly on San-Yang Meridians(三陽經穴), these acupoints react to tenderness, nodules and soreness; (3) Emphasizing the stimulus by "rush down" method; (4) Emphasizing post-acupuncture waist exercise, especially when acupoints on distal end of leg are used. It said that in the clinical application of this one-needle therapy to treat acute lumbar sprains, under the guidance of meridian differentiation, it usually has a significant effect at once, and can be cured by once or three times.

"One Needle Therapy" focuses on acute lumbar sprain, which, a common disease for acupuncture, refers to acute damage of lumbar muscles, fascia, ligaments, intervertebral facets etc. The number of acupoints used is as many as 41. In addition to the points near the injury point, the points at the distal end are covered, and the cause of pain is indicated, which is the common injury of acute low back pain. The long-term cause of chronic low back pain has not been detected and diagnosed, and the treatment is often performed by acupoints at the distal end to relieve the low back pain.

## II Acupressure therapy

Acupressure therapy uses the energy from your palm and fingers to detect the cause of the Low Back by Energy Field Induction (氣場感應) and Acupoint Detection (穴道偵測), at the same time, the acupoint pressure is to activate the human body's automatic repair mechanism to relieve the pain. Aside from low back pain caused by visceral lesions, such as cancers, kidney disease, bone disease, or gynecological diseases, there are two main causes of low back pain. First pain caused by long-term excessive labor, improper posture, and improper exertion injury, and pain caused by injury and deformation of human ligaments, tendons, muscles, and bones; and (2) Injuries caused by external forces such as car accidents, traumas, collisions, and falls. Only by understanding the damage of the Low Back structure, and by restoring it to the normal state operating functions can it be considered a successful treatment of low back pain. Therefore, acupressure therapy is to discover the actions or causes of injuries to the Low Back muscles and bones. It is not only a thorough treatment to repair musculoskeletal injuries, but also to remove the actions that cause injuries and correct and avoid them.

Acupressure therapy uses acupoints more widely than acupuncture, and uses human anatomy as the diagnosis basis of the lesion. The acupressure does not use needles, instead the energy released from fingers to stimulate acupoints. The internal Qi trained by the healer is used to give acupoints pressures to adjust the correction of human body. Function to remove the cause of low back pain, relieve musculoskeletal injury, and guide the musculoskeletal joints back to the normal anatomical position. Applying Qi can promote tissues and organs to self-adjust, repair and renew to restore normal movement features.

Though there are also no specific traditional medicine books describing its technique and skills, the principle of acupressure therapy for the diagnosis of low back pain lies in two clues: 1. Only when muscles, tendons and periosteum connecting bones contains nerves in an incorrect posture, or when the inflammation swells and presses the nerves, pain occurs; and 2. Each muscle, joint and bone has its certain movement direction and angle. In other words, each muscle and bone has its limited movement that can be performed deviation from those pain occurred. When movement exceeds the limited range, joints will be dislocated and lose its function. Therefore, in terms of diagnosis, the causes of low back pain can be divided into two types: (1) The damage caused by people themselves, long-term excessive labor, incorrect posture, and improper force that cause pain, injuries and deformation of human ligaments, tendons, muscles, and bones；and (2) The damage caused by external force, the severity of pain, injuries and deformation of human ligaments, tendons, muscles, bones and loss of motion function to varying degrees depends on the amount of energy of the external force.

Once the cause of injury is identified, the repair of tissues and organs can be initiate by acupressure at the follow-

ing processes：

1. To find out the scope of the injury and loss of function derived from damage to muscles, joints and bones, and to outline the actions of the injury and the external energy/force to determine the depth of the injury to human body. And then to judge whether it can explain as the causes of low back pain. If yes, continue the treatment. If not, continue to investigate to avoid misjudgment and improper iatrogenic injury, which will further hurt the patient's tissues and organs.

2. Use anatomical muscles, joints and bones to explain the lesions which cause pain. The damage may be from superficial to the deep of the body, and treatment to be adjusted accordingly.

3. Use general anatomical terms and names of acupoints to describe the strength of the treatment for communicating and recording purposes.

4. The strength and energy (Inner Qi，內氣) from the therapist's finger is used to remove the waste metabolites that should be removed soon after the musculoskeletal injury through the acupoint to accelerate the repair of the human body.

5. The causes of any acute and chronic injuries are different in the depth and scope of the body. Therefore, the scope of treatment is not only by a certain acupoint, but all related acupoints on muscle, joint and bone groups to assure comprehensive treatment is performed according to its severity and range. Only when body function completely restored, patients are considered have resumed their health.

6. After acupressure the metabolic wastes are centered at the lesion sites at acupoint, which can be removed when cupping is used to extract out and the repair processes can be accelerated.

7. The therapist's energy (inner Qi) is delivered to the patient through the acupoint, which can provide the patient with additional energy to start the rapid automatic repair and regeneration mechanism, and accelerate the recovery and healing of tissues and organs.

Therefore, using acupressure therapy low back pain has its defined scope, damaged muscles, tendons, ligaments, and bones can be well-detected in anatomy. The range and location can be effectively treated and cured. After the repair of tissues and organs is completed, the original cause of the injury can be completely removed, and it will not recur in its original state. The effect is very significant. The effectiveness and safety have been proved by RCT(3,4).

## III Comparison in technical operation between Acupuncture therapy and Acupressure therapy

The differences between these two methods in technical operation are:

1. Tools: Acupuncture therapy uses needles whereas acupressure uses human energy (Inner Qi)；

2. Acupoints: Acupuncture therapy uses acupoints according to symptoms and recommendation in books; acu-

pressure therapy uses Energy Field Induction (氣場感應) and Acupoint Detection (穴道偵測) to detect the cause of disease and injury to find out the deviations of tissues and organ and treatment follows. The acupoints is found not just a pinhole but a considerable bigger area, depending on the position of the musculoskeletal and the range of motion；

3. Treatment time: Acupuncture requires a longer time to retain the needle; acupressure therapy uses finger pressure in different finger manipulation. The treatment time is much less without the need to retain the needles.

4. Safety: Acupuncture is an invasive treatment, and many parts of the body cannot be needled; acupressure is non-invasive, safer, and can be applied to all parts of the body.

5. Effectiveness: Acupressure therapy is relatively fast and effective, and published academic papers on low back pain have proved its effectiveness and safety.

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# 肩臂與尾椎引起的下背痛

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**摘要**

下背的範圍是人體背部脇肋以下臀部以上的區域，所產生的疼痛概稱為下背痛。下背痛造成的原因很多，但不外乎是肌肉骨骼關節系統受到自我或外來的創傷。由於分佈於下背區域的肌肉、肌腱、韌帶和關節等組織的結構有明顯的差異，各部位所負責的肢體活動和功能也不相同，造成疼痛原因和肇禍的動作更是不一樣，但是疼痛的感覺卻是出現在「腰部」的區域。除了在中腰部的傷害其疼痛會出現在中腰部外，由肩臂而下和尾椎而上組織結構的傷害，所形成的疼痛，卻仍出現在中腰部地區。為此，我們將下背的範圍分為上腰部、中腰部，以及下腰部，並特別將由上及由下而來的致痛的原因加以說明，解釋何以疼痛會反射在中腰部，以利我們找出肇因，進行徹底的治療與預防。

**關鍵詞：**下背痛、肩臂、尾椎

**Abstract**

The low back refers as the area above the hips below the underarm flank of the human back, and the pain produced is called low back pain. There are many causes of low back pain, but nothing more than self or external trauma to the musculoskeletal and joint system. As the structures of muscles, tendons, ligaments, and joints distributed in the low back area are vary, and the limb activities and functions responsible for each part are also different, the pain causes have to be differentiated correctly since the feelings of pain raised often appear in the area called the "waist". In addition to the injuries in the mid-waist its pain will appear in the mid-waist, the pain caused by the damage of the tissue structure from the shoulder and arm and from the tail of the spine will still appear in the mid-waist area. To this end, we divide the area of low back into upper waist, middle waist, and lower waist, and specifically explain the causes of pain from the top and bottom, and explain why the pain is reflected in the middle waist so that we can better find out the cause and carry out thorough treatment and prevention.

**Key words:** low back pain, shoulder, arm, the tail of the spine

下背的範圍是人體背部脇肋以下臀部以上統稱「腰部」的區域，所產生的疼痛概稱為下背痛，一般也稱為「腰痛」。下背痛最常見的症狀有：(1) 肌肉、肌腱、韌帶持續扭曲造成的疼痛；(2) 骨關節錯位受壓迫僵直，活動時一動就痛，不動難受的不適感；以及(3) 麻木：神經部分阻斷時會有麻的異常感受。這些疼痛有些是間歇性，有些是持續性，或只有怪怪悶悶的感覺，有少部分在一段時間後會自動隱藏消失，但可能伺機再復發。

造成下背痛的原因很多，但不外乎是肌肉骨骼關節系統受到自我或外來的創傷，如：人本身活動時的跌倒壓迫、工作時姿勢錯誤、用力不當及過度使用，另外就是車禍撞擊等外力所造成的傷害。治療下背痛如僅僅是消除疼痛的感覺那是治標，根本治療應該要恢復肌肉、關節等的功能，更重要的是要找出造成症狀的原因和肇禍的動作並去除之；也要讓病患瞭解以便防範，和改變生活動作的習慣，避免復發或再患。

雖然下背痛的感覺多在腰部一帶，但是，由於分佈於下背區域的肌肉、肌腱、韌帶和關節等組織的結構有明顯的差異，各所負責的肢體活動功能也不同，造成症狀的原因和肇禍的動作更是大異其趣，為此，有必要將背部區域分成如下三個部分，方便我們找出肇因，進行徹底的治療與預防。

## （一）上腰部

區域:兩側肩甲骨以下至第十一、十二根肋骨的下緣，包括兩側寬闊的肌肉群。

組織結構：胸椎、肩甲骨、肋骨等骨頭、關節以及肩背的肌肉群

運動範圍：手臂的伸展旋轉等多向的運動、肩甲骨肌肉於用力拍打前後旋轉的運動，以及身體軀幹上半身的前後俯仰及左右轉彎和旋轉的運動

## （二）中腰部

區域：第十二節胸椎以下，包括腰椎第一至第五節、薦骨、髂骨、臀部兩側以及薦骨兩側。

組織結構：這部分的組織結構較為複雜，有肌肉、骨骼、關節等的肌肉群和關節，致疼痛的原因最多，且以關節和肌肉群為主。

運動範圍：這是人體活動最頻繁的部位之一，負責軀幹的前後俯仰、左右旋轉彎曲和雙腿內外曲伸等的運動，是最易產生症狀的區域

## （三）下腰部

區域：薦椎以下至尾椎末端，包括兩側髂骨下緣和股關節。

組織結構：薦椎、尾椎、坐骨以及髂骨和股骨聯合的大轉子等骨頭和關節，是多處承受負重力的關節及肥厚的肌肉群。

運動範圍：負責聯合腿部與臀部的多方向的各種活動，主要是行走以及端坐在座椅上腿與臀部的移動，需負載上沉的軀幹以及下抬兩雙腿的重力。

以上三個區域的組織結構性質雖然差異很大，但是所造成的疼痛，除了中腰部的自然留在中腰部地區，如圖一。

圖一

上腰部和下腰部所產生的疼痛對病人主觀的感覺竟也反應在中腰部地區，造成治療上的困擾。因此，我們特別將這兩區域其致疼痛的原因加以說明，為何以疼痛會反射在中腰部，以利我們找出肇因，進行徹底的治療與預防。

## 一、上背引起的下背痛

人體上半身大範圍的活動會使用到上自頭頸、肩膀及手臂直到腰部的全面肌肉群。如果在輕微的動作下，不會造成背部肌肉群的傷害；一但進行強力或長期過度用力使用，這群脊椎兩側的傷害，就會由肩、頸及手臂的肌肉群開始自上而下逐步拉傷，其疼痛最終止於第二節腰椎，所以疼痛的終點就停在中腰部，如圖二、圖三、圖四及圖五。

圖二

圖三

圖四

圖五

就解剖學上而言，肌肉群的受傷可上自肩、頸的斜方肌、菱形肌、上鉅肌，到擴背肌與斜方肌交界之處，影響擴及到中腰部下背痛的範圍。最常見的狀況是單側上下背部肌肉扭、拉、挫傷疼痛的部位。

## 二、尾椎引起的下背痛

下腰部中，薦椎與尾椎相聯，但薦椎藉髂骨的相連又與股骨藉股關節

相聯繫，負載軀幹以及下肢的重力，承擔腰腿部多方向上下和轉動的各種活動。腿部與臀部的拉、扭、裂和挫傷所造成的疼痛，通常會發生在受傷的部位很少往外散布。唯獨尾椎骨和薦椎下端的挫傷其疼痛會反應在中腰部來，其傷害多為隱藏不易發現病患也很少自知，因為尾椎骨除末端外上沒有神經，除非傷及骨膜，才會感覺到疼痛。通常尾椎骨挫傷甚至是骨折都少有痛感，只有當尾椎骨彎曲導致壓迫到旁邊股部底端的肌肉，由於該肌肉的附著點最終上行至薦椎與髂骨相連處，大約在髂脊的上緣，也就是將疼痛牽扯在中腰部。據臨床的經驗，一般抱怨此處疼痛者有 80 %是源自於尾椎骨的受傷。不過在急性期時病患會感覺腰痛，沒辦法端坐，甚至無法平躺著、起身。其穴壓與拔罐治療如圖六、圖七、圖八及圖九。

圖六

圖七

圖八

圖九

下背痛可以導致失眠、姿勢不正、影響到情緒、心肺及腸胃的功能。所以當個案陳述下背痛時，要診斷分辨是疼痛是腰部本身產生的，還是從肩臂而來的，或是自尾椎上引起的下背痛，同時要確定該部位是如何受傷，讓病患瞭解以便防範，及改變生活動作的習慣，避免復發或再患。

# 頸痛的診斷與治療

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## 摘要

頸痛是頸椎病的最常見的主訴，包括頸軸痛(axial neck pain)，揮鞭相關疾病(whiplash associated disorder)、頸部神經根病變及頸部脊髓病變(因脊髓壓迫所致)等。依病因類型，臨床表現各有不同。後頸肌肉痠、痛，以輻射狀擴及枕部、肩及肩胛旁區為頸軸痛及揮鞭相關疾病典型症狀。神經根痛則是因神經根壓迫或神經周圍的發炎刺激，沿著上肢皮節感覺神經分布。因退化性變化使脊椎孔狹窄導致神經壓迫，上、下肢漸進性笨拙，無力，僵硬，則為頸椎脊髓病變典型症狀。利用平面 X 光檢查，電腦斷層掃描(computerized tomography, CT) 及磁振造影(magnetic resonance imaging, MRI)等影像學檢查，有助於頸椎疾病的診斷。治療方法包括止痛藥物、物理治療、手術減壓、針灸治療、穴壓治療等。治療目標為避免造成誘發頸痛的因素，減低頸椎病變導致的併發症，延緩病情惡化的速度，回歸日常生活。

**關鍵詞:** 頸痛、頸椎病、針灸治療、穴壓治療

## Abstract

Neck pain is the most common complaint of cervical spondylosis, the common sources of neck pain included axial neck pain, whiplash associated disorder, cervical radiculopathy and less common cause of cervical myelopathy. Clinical manifestations differ with various causal types. Posterior neck soreness and pain, radiated to the occiput, shoulder and paraspinal region associated with axial neck pain and whiplash associated disorder. Radicular pain occurred in a specific dermatomal distribution in the upper extremity. Cervical myelopathy are typically manifested as insidious awkwardness, weakness or stiffness in the upper and lower extremities. Plain radiography, computerized tomography, magnetic resonance imaging may be aided in diagnosis of cervical spine disorder. Therapeutic strategies include analgesics, physical therapy, surgical decompression, acupuncture, acupressure, etc. Therapeutic goals are to avoid inciting event of neck pain, eliminate complications of cervical spondylosis, delay clinical deterioration and finally return to usual activities.

**Key words:** neck pain, cervical spondylosis, acupuncture, acupressure

## 一、前言

頸痛是頸椎病最常見的主訴，包括頸軸痛(axial neck pain)，揮鞭相關疾病(whiplash associated disorder)、頸部神經根病變。其他較少見的原因為頸部脊髓病變(因脊髓壓迫所致)、感染、腫瘤、風濕病(僵直性脊椎炎、脊椎關節病變、類風溼性關節炎)及廣泛性不明原因骨骼過度增生(hyperostosis)，斜頸、頸部強直(dystonia)，重大傷害如骨折、脫臼、脊髓受傷及疼痛症候群如纖維肌痛症(fibromyalgia) ( Alan B 2004)。近年來手機已蔚為流行，且為日常生活的必需品，但使用不當，也會影響健康。常見使用手機發生的症狀，以頸痛居首位(佔 72%)，其次為頭痛(佔 63.5%)，症狀發生比率隨著使用時間增長(1 至 5 年)而增加(AlZarea BK 2015)。

## 二、流行病學

頸痛一年的發生率佔 10.4%-21.3%，四分之三病患因頸痛而間接付出如失能、無法工作的代價。復發率估計低於 50%，平均盛行率女性多於男性(2013 Andrew J. Teichtahl)，英國成人的研究中 25%女性及 20%男性有頸痛，盛行率在中年期達高峰(2007 Allan Binder)，且高收入國家及都市多於鄉村地區(2013 Andrew J. Teichtahl)。美國 Minnesota 州 Rochester 市進行大族群的研究分析發現，頸神經根症狀的年發生率，每 10 萬人口佔 83.2 人，50-54 歲年齡群達顛峰，平均追蹤 5.9 年後有 90%病人無症狀或僅輕微行動受限(incapacitated) ( Alan B 2004)。頸部脊髓病變盛行率無相關資料，但研究顯示無手術治療則會進行性惡化。一項研究顯示經椎板切除術(laminectomy)及後側脊椎融合術(posterior fusion)，80%癒後良好，追蹤 4 年後無延遲性神經學惡化( Alan B 2004)。頸軸痛為最常見頸痛原因，自然緩解比率也高，研究顯示非手術照護患者，3 個月後完全或部分改善者佔 70%；另一項 10-25 年的追蹤研究，43%完全緩解，25%輕微殘餘痛，32%中度至重度殘餘痛( Alan B 2004)；揮鞭相關疾病的研究顯示，病人中約有 60%於一個月內症狀緩解，19-60%(平均 33%)有慢性症狀；受傷後 3 個月無症狀的病人，經過 2 年後有症狀者占 7%，然而受傷後 3 個月有症狀者，2 年後症狀仍存在 ( Alan B 2004) 。

**定義**:

1. 依結構性變化區分

(1)頸軸痛，亦稱非複雜性頸痛及頸扭傷(strain)，是與姿勢、睡眠習慣，人體工學設計如電腦螢幕、壓力、慢性肌肉疲乏，及因其他主要痛源如肩、顳顎關節，顱頸等所作姿勢適應的相關肌肉及韌帶間複雜的交互作用，或頸椎間盤或小面關節退化性的變化( Alan B 2004)

(2)揮鞭相關疾病，因加速/減速致使能量轉移至頸部，導致急性或亞急性頸痛，如遭後端車輛撞擊或跳水傷害。揮鞭相關疾病魁北克分類第一類：一般性、非特異性頸部痛、僵硬、或痠痛而無客觀發現，第二類:頸部症狀及骨骼肌肉結構癥候，第三類：頸部症狀及神經癥候，第四類：頸部症狀及骨折或脫臼( Alan B 2004)。揮鞭相關疾病，也會表現類似落枕

(stiff neck)即頸部肌肉拉傷或韌帶扭傷導致的症狀(Fitton L 2017)。

2. 依有無神經干擾區分

(1)頸神經根病變：因外在壓力如骨刺或椎間盤作用於頸神經根，使得頸部與臂部運動及/或感覺改變，約 70-90%病例與骨退化性變化導致椎孔侵犯相關( Alan B 2004)。

(2)脊髓病變：因頸椎與脊髓的空間狹窄導致長束癥候(long tract sign)，多因外在壓力如先天性脊髓直徑較小，骨刺，椎間盤突出，椎管直徑與脊髓間的動態改變，以及脊髓的血流供應有關( Alan B 2004)。

**頸痛自然史**

英國一項 7669 名成人研究中，18%於研究期間有頸痛，經一年後調查半數(58%)仍痛。初始頸痛的嚴重度與同時呈現背痛，是預測頸痛發生一年後預後不佳的因素，頸痛患者中，至少有 10%演進成為慢性頸痛，約有 5%患者嚴重失能。因此，頸痛結果與潛在原因有關，雖然可能會復發或轉變為慢性(超過 3 個月)，但急性頸痛於數日或數週即可緩解(2007 Allan Binder)。頸痛發生 6 週內稱為急性，可歸因於誘因事件（inciting event），當頸部快速轉動時有”卡住”的感覺，則為典型急性斜頸或歪頸現象(wry neck)。頸痛與背痛類似，症狀發生的前三個月 1/3 患者可復原，發作一年後 2/3 患者仍有疼痛。頸痛持續 6 週至 6 月稱為亞急性，頸痛持續 6 月則稱為慢性(2013 Andrew J. Teichtahl)。

**表現症狀**

身體痛(somatic pain)區分為表淺或深部，表淺體痛由頸部表淺結構(包括皮膚)之疼痛受器(nociceptor)所活化，為局部性且界限清楚。相反地，深部體痛由韌帶、肌腱、骨及血管之疼痛受器所活化，非局部性且為鈍痛 (2013 Andrew J. Teichtahl)。依病因類型，臨床表現各有不同。

1. 後頸肌肉痠、痛，以輻射狀擴及枕部、肩部及肩胛旁區為頸軸痛及揮鞭相關疾病典型症狀。單一方向或多方向運動時，常有頸部僵硬及頭痛，局部區域有暖熱、針刺感或肌肉壓痛感( Alan B 2004)。
2. 神經根痛則是因神經根壓迫或神經周圍的發炎刺激，沿著上肢皮節感覺神經分布的疼痛(2013 Andrew J. Teichtahl)，神經根痛為尖銳、針刺、燒灼痛，通常為單側，發生緩慢，偶會突然發作，常因手臂姿勢及頭伸展或外轉而加重症狀( Alan B 2004)。
3. 因退化性變化使脊椎孔狹窄導致神經壓迫，上、下肢漸進性笨拙，無力，僵硬，則為頸椎脊髓病變典型症狀。常見頸，肩、手臂深部疼痛，頸部僵硬，偶有膀胱功能失調( Alan B 2004)。
4. 落枕常以頸項部或兩側斜方肌、胸鎖乳突肌的痙攣、僵硬、疼痛等症狀表現，嚴重時疼痛會擴及頭部、背部及上臂，觸摸有如條索或呈塊狀，頸部活動明顯受限，患側活動功能障礙(林文彬 2006)。

**病史及身體檢查**

先前頸部受傷或相關症狀有助於診斷。晨間僵硬常為風濕性原因，發燒、體重減輕、盜汗常為感染或腫瘤。

曾罹惡性腫瘤而出現持續性夜間痛，則有可能為骨腫瘤。步態障礙，平衡出現問題，括約肌失去功能，或喪失協調功能則為脊髓病變 ( Alan B 2004)。身體檢查,藉由視診觀察姿勢對稱性，肌肉量，活動容易度，先前疤痕、畸形；觸診可得知軟組織、骨及頸部結構如甲狀腺、淋巴結、唾液腺；頸及肩活動範圍如屈、伸、側彎、旋轉；神經學檢查可藉由感覺、運動及反射功能異常，上(脊髓壓迫)或下(神經根)運動神經元或潛在皮節侵犯，作為病灶的解剖定位 (2013 Andrew J. Teichtahl)。

**鑑別診斷**

纖維肌痛於關節周圍有壓痛點，或伴有精神異常或睡眠障礙。類風溼性關節炎的發炎變化，影響頸軸(atlanto-axial)關節及上部頸椎，關節退化性變化於此處不常見。罹患關節炎的病人，有必要確認頸痛是否同時有頸椎退化，椎間盤突出，其他機械性病灶或原發性神經疾病則需進一步檢查 (2007 Allan Binder) 。

**影像診斷**

平面 X 光檢查，退化性變化常見於 30 歲以上者，即使有嚴重退化性變化，通常仍為無症狀，因此，影像學檢查需結合病史詢問才具有診斷性(2007 Allan Binder，2013 Andrew J. Teichtahl)。一項針對 50-65 歲無症狀者平面 X 光檢查的研究顯示，79%受試者有椎間盤空間狹窄，終板硬化或骨刺。另一項 MRI 的研究，發現主要異常包括椎間盤突出、椎間孔狹窄、椎間盤空間狹窄，脊髓訊號異常， 於 40 歲以下無症狀者佔 14%，而 40 歲以上無症狀者佔 28% ( Alan B 2004)。平面 X 光檢查，發現頸椎失去正常脊柱前凸（lordosis）曲線，表示肌肉痙攣，多數為退化性疾病，也會在無症狀人群發現，與臨床症狀相關性不高(2007 Allan Binder)。磁振造影頸椎檢查用於疑為嚴重病變，可提供脊髓、骨骼、椎間盤及軟組織結構詳細訊息，正常人亦可呈現影像病理性異常，因此需謹慎判讀，如有系統性疾病或嚴重症狀，則需另增血液檢查，紅血球沉降率，C 反應蛋白，蛋白質電泳分析等以確定病因(2007 Allan Binder)。MRI 及 CT 適用於腫瘤、感染、脊髓壓迫及椎間盤突出，CT 著重於骨病變，MRI 則適用於軟組織異常(2013 Andrew J. Teichtahl)。因此，建議平面 X 光用於揮鞭相關疾病第三級或類似第四級曾有頸部鈍傷病史者，亦可用於經 6-8 週保守治療後無改善的頸軸痛病人。MRI 適用於疑似脊髓病變、感染或腫瘤，神經根痛併有運動或反射缺損，神經根症狀 6-8 週仍未緩解的病人( Alan B 2004) 。

**併發症**

因脊髓病變致使手變笨拙、步態異常，感覺異常或下肢僵直性癱瘓，晚期則有膀胱功能失常的現象(2007 Allan Binder)。

**治療**

急性頸痛治療以避免產生慢性失能為目標，早期活動，物理治療，有助於恢復並減少慢性失能(2007 Allan Binder)。止痛劑、肌肉鬆弛劑、類鴉片、抗憂鬱劑、解痙劑、鎮靜安眠劑、壓痛點注射、類固醇、監督下的運動、

手法治療、物理治療等皆為治療的選項( Alan B 2004, 2007 Allan Binder)。

1. 非鴉片類止痛劑，包括非類固醇抗發炎藥或乙醯胺酚(即普拿疼)：針對頻繁發作的急或慢性頸痛為第一線治療用藥，但急性頸痛如揮鞭傷害無療效證據，早期活動及物理治療卻能促進復原及減少慢性失能(2007 Allan Binder, 2013 Andrew J. Teichtahl)。
2. 鴉片類製劑：若非鴉片類止痛劑無療效，長效劑型鴉片類製劑可用來緩解症狀,但需衡量副作用如便秘、嗜睡及依賴性，建議謹慎使用(Alan B 2004, 2013 Andrew J. Teichtahl)。
3. 肌肉鬆弛劑：急性頸痛治療效果有限,卻會有嗜睡的副作用(2007 Allan Binder)
4. 針灸:治療慢性頸痛有些短期療效，但長期療效則無明確證據(2007 Allan Binder, 2013 Andrew J. Teichtahl)。
5. 外科減壓手術：針對脊髓病變，神經根病變或頑固性痛有一定的療效(2007 Allan Binder)
6. 針灸配合低強度雷射：用於治療頸椎病合併神經根病變的病人，為不願手術或預期手術效果不佳的替代療法(2012 洪怡錂等)。
7. 穴壓治療：頸部肌肉拉傷或韌帶扭傷，藥物治療無效，復健治療無法改善時，如再佐以拔罐的技術，使病灶與相鄰區域產生明顯壓力差，將皮下組織中的異常成分吸出，更能提高臨床治療的效果(2011 謝麗貞)。
8. 治療及預防落枕: 若頸部痠痛緩慢發生，可先用熱敷，如為急性發炎、疼痛，需先用冷敷處理，其他還有手法處理，針灸治療，穴壓治療或藥物治療，平時可做頸部柔軟操，選擇適當寢具，達到預防保健效果(林文彬 2006)。

## 結論

頸痛原因很多，包括頸軸痛，揮鞭相關疾病、頸部神經根病變、因脊髓壓迫、感染、腫瘤導致頸部脊髓病變、僵直性脊椎炎、脊椎關節病變、類風溼性關節炎及纖維肌痛症等。根據不同病因，利用現今先進的醫療儀器檢查而正確診斷，適當治療，並避免造成誘發頸痛的因素，減低頸椎病變導致的併發症，延緩病情惡化的速度，回歸日常生活。

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案例報告

# 下背痛實例個案報告

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**受傷原因**

在浴缸幫小朋友洗澡過程中，由於身體一直處於蹲姿狀態作業，在洗完澡要將小朋友抱起時，可能腰部肌肉還處在扭轉姿態，為圖快當下未先將腰部姿勢轉正回復便立刻將小朋友(體重已逾 10 公斤) 抱起站立，導致腰部瞬間因負荷過大而受傷。

**診斷過程**

因為疼痛病徵是發生在腰部，但尚未確定是何部位受傷所導致。所以謝醫師當下先從脊椎脊柱由上到下按壓檢查，看看在穴壓過程中是否出現疼痛異狀來判定受傷部位。所幸在診斷過程中，因脊椎骨頭及神經部分並無明顯疼痛異狀而將其從 root causes 選項中排除。再來從背長肌，背短肌，背闊肌髂肋肌等外層肌肉群按壓，檢查是否有出現疼痛異狀。經從上到下依序按壓檢查，過程中也並無出先明顯疼痛徵兆所以也將這部分排除。最後就將身體/肩膀臀部平貼於診療床上同時上下半身彎曲呈半月形，以方便檢視腰大肌 (內層肌肉群連結脊椎骨幹及鼓盆/股骨) 部分是否有拉傷。果然不出所料，當下按壓到痛點時馬上酸疼萬分的，同時也確認出腰痛受傷的部位應該在此部位肌群。

在找出受傷的大概部位後，先透過氣功依序前後按壓腰大肌找出疼痛最明顯的位置後再進行拔罐治療，以便將受傷部分的 stress 能透過拔罐過程將其由內而外釋放出來。受傷及拔罐的位置圖如下所示:

**第一天**

圖一

圖二

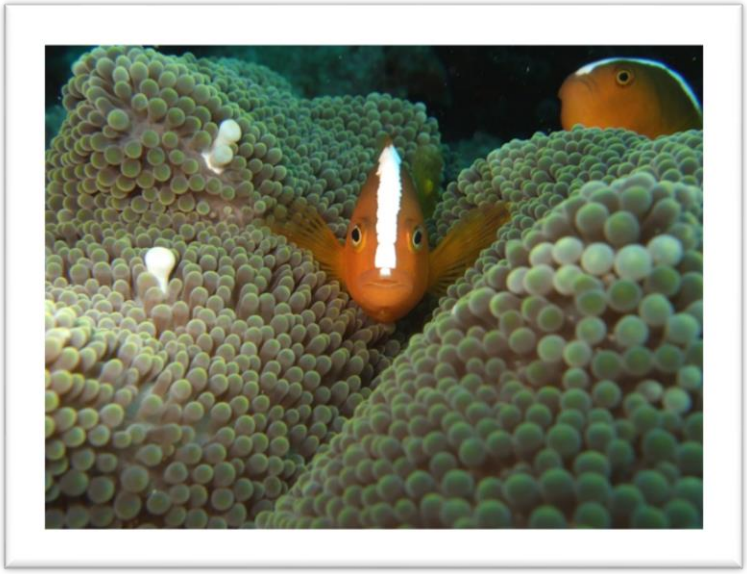
**第十四天**

圖三

**穴壓治療後記**

透過穴壓拔罐處理後，當下至少可以回復到蹲屈站立不致有明顯疼痛

不適。不過在抱小朋友或行走時，還是可以感受到該部位會因有受力關係，拔罐位置處還是會隱隱做痛。附帶一提的是，在穴壓拔罐處理完後，隔天反而是疼痛感最明顯的時候。特別在蹲屈穿襪或鞋時還是會感受到疼痛。另外當需從座位站立時，可能牽動到脊椎及鼓盆/股骨的肌肉群，腰部的痠疼痛感反而特別明顯難耐。同時當天在走路過程時，也隨時能感受到腰大肌因被牽引的關係也會隱隱作痛無法快步行走或小跑步過馬路 (當路口紅燈秒數剩下不多時)。不過此不適徵狀在隔幾天後 (同期間晚上沐浴時也有沖熱水於該部位類似熱敷以幫助復原)便慢慢減緩許多，到第 4 天後至少一般坐臥行走小跑也都能行動無礙。不過畢竟也有點年紀不似年輕人復原的那麼快，除繼續尋求穴壓治療外加速復原外，後續可能還需增加熱敷等物理治療及自行練氣自癒，以加速身體受傷部位的修復治癒。



小丑魚(白背雙鋸魚)與海葵

小丑魚居住在海葵的觸手之間，牠們可以使海葵免於被其他魚類食用，而海葵有刺細胞的觸手，可使小丑魚免於被掠食。由於小丑魚本身則會分泌一種黏液在身體表面，保護自己不被海葵傷害。(摘自維基百科)

—資深海底攝影師 Jenny Lin 提供

# 預防長時間使用手機對身體的影響

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由於一開始方便接聽電話到號稱「智慧型」功能多元的手機，除了帶來人們生活的便利性，也相對引發人們對手機的依賴性。根據資策會的報告，於 2017 年已有 51.5%的民眾屬於手機中度使用者，其每天使用手機的時間為 2 至 5 小時，更有 28.1%的民眾每天花超過 5 小時滑手機，屬於重度使用者(資策會，2018)。在這樣高比例的過度使用下，電腦、手機等已成為現代人必備的工具，文件、事物、設計、通訊、生活瑣事，也常透過 3C 產品來完成。上班工作者和學生們更是成天操作，致使視力模糊退化、頭痛、肩頸酸痛僵硬等肌肉老化的現象。當眼睛注視屏幕、手指觸、滑鍵盤、手控滑鼠時，人體均是要同時使用眼睛、頭、肩、頸、手臂、手腕和手指等肌肉群的精準細微動作，一但過度使用或姿勢錯誤不當，又長期採用坐姿時，即產生肌肉疲勞、手臂無力、指腕麻痺，使得頭、肩、頸、背僵硬酸痛，嚴重者更造成背部骨骼變形駝背，進而腿、腳、踝、趾等下肢神經的壓迫、末稍腫脹、疼痛和無力，產生嚴重的病變，如下肢深部的血管栓塞。

**個案報告：**

一位 50 餘歲退休女性，因為長時間低頭滑手機，不自覺地頭越低下，頸、背越來越彎曲，此錯誤的姿勢使頸椎變形且受力加劇，導致頸部椎間盤突出、神經壓迫等各種退化性骨關節病變，雖就醫卻不易改正。經過穴壓與拔罐學會謝醫師用穴壓療法和拔罐治療後，症狀方改善許多。頸部與上背部拔罐治療後，就像隻米老鼠頭部的印記如下圖：

圖一

鑑於長期使用手機會促使人們提早頭部頸椎病變，身心衰老，疾病纏身，對成長中的兒童，青少年等更容易形成駝背脊柱彎曲，關節退化、變形等，我們要維持良好的手機操作姿勢，要保持身心輕鬆，隨時緩解各種不適，不使之傷害健康，否則一旦病變已然發生，就難有有效的改善方法。所以平時即要注意預防的措施，建議如下：

1. 減少滑手機的時間，改採用較大屏幕的手機。
2. 採用左、右手輪流拿手機。

3. 使用手機時，要抬頭、挺胸、縮下巴，避免久坐。
4. 盡量將手機拿高，避免維持固定姿勢超過 10 分鐘。
5. 在光線充足的地方使用手機。
6. 坐姿時身體盡量靠著椅背或是牆壁，避免駝背和低頭。
7. 常做肢體伸展的動作，舒緩頭肩頸緊繃的肌肉。
8. 多讓眼睛休息，多看遠方的綠樹，同時經常深呼吸打開胸廓。
9. 多進行活動手臂、肘、腕、手部的體操。
10. 多進行活動手指關節、肌肉、韌帶的伸曲運動。

小丑魚(白條雙鋸魚)、海葵與偷拍拍魚的人

看得出來這照片是拍魚的人反而被拍？

—資深海底攝影師 Jenny Lin 提供

# 龍崎鄉下背痛篩檢結果

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## 摘要

下背痛為常見困擾民眾的健康問題。在台灣不同職業的盛行率不同。由於其高復發率和負面影響病人的日常生活及消耗社會成本，值得去研究其與生活勞動姿勢的相關性。台南縣龍崎鄉是一個靠近山區較為獨特的鄉村。經篩檢結果得知，本鄉下背痛盛行率約為百分之卅，較低於文獻報告中台灣其它職業的盛行率(35%~90%)。又衡量疼痛嚴重度時，發現非常疼痛者僅佔 20%，且其中以椎間盤突出(HIVD)術後者，或因系統性疾病所造成的下背痛者為多。觀察結果發現，本鄉居民因種植稻田蔬菜的耕地少，故種植較高的竹子或鳳梨等作物，勞動姿勢以直立為主，不需長期坐下或下蹲俯身的勞動工作，可能是主要的原因。

**關鍵詞：**下背痛、勞動姿勢

## Abstract

Low back pain is a common health problem that bothers people. The prevalence of different occupations is different in Taiwan. Because of its high recurrence rate and negative impact on patients' daily lives and consumption of social costs, it is worth studying its correlation with living and working postures. Longqi Township, Tainan County is a more unique village near the mountain. According to the screening results, the prevalence of back pain in this country is about 30%, which is lower than the prevalence of other occupations in Taiwan in the literature (35% ~ 90%). When the pain severity was measured, only 20% of the patients were found to be very painful, and among them, those who underwent disc herniation (HIVD) or low back pain caused by systemic diseases were more. Observation results found that because the residents of the township had less cultivated land for planting rice fields, they planted higher crops such as bamboo or pineapple. The working posture was mainly upright, and the labor work that did not require long-term sitting or squatting down was probably the main reason.

**Keywords:** low back pain, working posture

下背痛為常見困擾民眾的健康問題。一般人口每年的發生率為百分之五，一生中盛行率為百分之六十到百分之九十(1)。在台灣不同職業的盛行

率自百分之三十五到百分之九十不等(2~4)。由於其高復發率和負面影響病人的日常生活及消耗社會成本，長期以來對下背痛的診斷，分類和治療已有許多研究及文獻記載。唯尚無下背痛的篩檢工具來進行篩檢，以期早期診斷早期治療。治療下背痛的方法除藥物或物理治療外，有一些輔助性另類療法(complementary alternative medicine)對解除下背疼痛有效，其中以穴壓治療已經過隨機臨床試驗的實證醫學研究證實為有效和安全的治療方法(5)。其穴壓治療中有使用制動點(trigger points)來偵測致病痛原因的技術，因此可由下背痛制動點來偵測有無下背痛及其致病痛的原因，以便及早預防、消除原因及治療下背痛。對無症狀的病人更可以達到早期診斷、早期預防或治療的目的。

因此本試驗即以下背痛制動點為篩檢工具，針對台南縣龍崎鄉民實施篩檢計畫，研究篩檢下背痛的結果。

## 研究方法與執行

於 2007 年 5 月 13 日將下背痛制動點篩檢包括於台南縣衛生局、龍崎鄉衛生所和台灣大學預防醫學研究所共同實施的整合式篩檢計畫中，對當地部份鄉民進行下背痛制動點按壓及記錄按壓後疼痛反應的問卷篩檢。問卷內容包含四大項:一、目前疼痛或不舒服的分數(以 VAS score 0~100 測量)；二、下背痛制動點穴位(環跳、中空、跳跌、髂後上脊、溪上、關元俞、腰眼、腰陽關，左右兩側共 15 處，腰陽關在中線) 各制動點穴位依按壓反應疼痛嚴重度個別測量之)；三、下背痛制動點按壓後，制動點穴位立即的疼痛感覺程度(以受檢人自覺的無痛覺、正常壓覺、稍痛、很痛、非常疼痛等分五個等級)。如果有疼痛即表示篩檢陽性，該民眾有不同程度的下背痛，如果沒有疼痛即表示篩檢陰性，該民眾無下背痛。四、於 2007 年 5 月 20 日追蹤，對鄉民解說篩檢結果，並給予醫療諮詢建議 (醫療諮詢建議包括工作體位調整、自我按壓穴位放鬆疏解疼痛、家人協助按壓穴位放鬆疏解疼痛、接受物理治療復健，以及接受專業醫療)。另外詢問鄉民按壓後疼痛分數(以 VAS score 0~100 測量)，以及接受按壓的感覺，以瞭解下背痛制動點篩檢的相關效果。

鄉民基本資料由整合式篩檢計畫工作人員詢問蒐集。下背痛制動點篩檢中的穴位按壓人員共六位，由專業醫師事前召集訓練，以求穴位按壓操作技術的一致性。穴位按壓篩檢由此六位人員隨機輪流操作，鄉民受按壓的疼痛反應問卷記錄，則由非按壓人員依鄉民按壓後詢問記錄之。篩檢問卷資料由篩檢計畫工作人員統籌整理統計。

## 結果

參與下背痛制動點篩檢人數共約 175 人，接受醫療諮詢建議共約 89 人。依照下背痛制動點穴位按壓反應，依疼痛嚴重度測量，無疼痛者佔 29%，稍痛者佔 26%，很痛者 25%，而非常疼痛者佔 20%。鄉民中自稱無下背痛病史，但是下背痛制動點穴位按壓反應為陽性者約佔 29%。亦即可稱無下背痛症狀的鄉民，經下背痛制動點篩檢為陽性者(asymptomatic patients) 有 29%，可以表示為此次下背痛制動點的篩檢率約為 29%。正確數據及其他數據分析則待正式統計資料的結果。

## 討論

利用下背痛制動點作為篩檢的工具，可以偵測出 29%無下背痛症狀的病人，具有正面篩檢的意義。至於其篩檢工具的敏感度和精確度則須進一步評估。總共約 175 人的受篩檢者中，有一位具有病史且正接受治療中的老婦人事後抱怨嚴重下背痛，經過醫師處理後，已恢復其正常狀態。由此在對已然有嚴重下背痛的病人施行下背痛制動點按壓時，應由醫師處理，以免造成不良結果。

下背痛制動點疼痛為陽性者，可以推測出病人是由何種動作姿勢所造成的傷害。因此急性或長期慢性的下背痛，或不明原因的下背痛，可由下背痛制動點來偵測致病痛的原因，再有效地去除原因及治療。所以穴壓治療的效果應歸功於能將病痛的原因的去除，進而修復組織，加速癒合過程。下背痛制動點的利用是重要的關鍵。

台南縣龍崎鄉是一個靠近山區的鄉村。由篩檢的結果得知，此次龍崎鄉受檢族群(45~65 歲鄉民為主)下背痛盛行率約為百分之卅，低於文獻報告中台灣不同職業的盛行率(35%~90%)。又篩檢中疼痛嚴重度中，非常疼痛者僅佔 20%，且其中多以 HIVD 術後，或是由其他系統疾病所造成的下背痛為主。經由訪問，本鄉居民多以種植竹子或是鳳梨等作物為主，勞動姿勢以直立為主。稻田蔬菜耕地較少，不須彎腰俯身工作，可能是主要原因。另外人口外流，健康工作人(health worker effect)的效應也可能會有影響。此結果與當地居民的下背痛原因的關聯，實在值得進一步再探討。

下背痛制動點篩檢和穴壓治療均為非侵入性的方法，不須工具或設備，具有成本效益。在緩解下背痛上，除專業人員外亦可由個人自行 DIY 緩解自己或親友的疼痛，值得推廣為社區民眾的促進健康、預防保健及緩解疼痛的衛生保健方法。

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# 以拔罐方法治療下背痛效益之系統性文獻回顧與綜合效益分析

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## 拔罐療法

拔罐是一種將吸盤應用於皮膚下之肌肉軟組織的技術，由於使用簡單、副作用小，因此拔罐在物理醫學中越來越受歡迎，這些因素也使其成為具有效的另類療法（Markowski et al. 2014）。拔罐也是一種醫療介入措施，已被廣泛用於亞洲、中東和歐洲國家作為替代療法，拔罐主要透過抽吸形成負壓後之使用治療裝置，促進氣血循環和去除血瘀。根據調查，拔罐主要用於治療肌肉與骨骼疾病，最常用的拔罐點是頸部、肩部及腰部（Kim et al. 2012）。

## 拔罐種類—乾(一般)拔罐與濕拔罐

乾拔罐是一種治療疼痛綜合徵的古老方法，也是一種傳統的中醫治療，已經被使用了數千年（Lauche et al. 2011）。世界衛生組織 WHO 將乾性拔罐定義為一種涉及通過產生真空吸力的治療方法，通常是使用杯子或罐子中的火焰產生熱量來抽取空氣產生局部真空(現在會使用機器輔助)，並應用在身體受影響部位的皮膚下以促進血液和氣的循環，去除血液淤滯和身體的廢物，緩解肌肉的緊張，從而刺激自主神經系統並減輕疼痛來完成治療（Chi et al. 2016）。

濕拔罐是已知最古老的醫療技術之一，並且仍然在幾個當代社會中使用（Farhadi et al. 2009）。在中東非常普遍，也在亞洲和歐洲流行，越來越多的證據顯示，濕拔罐在某些條件下具有很好的療效，尤其是肌肉及骨骼方面的疼痛（AlBedah et al. 2015）。利用玻璃杯在疼痛區域上產生吸力，並在施加杯子之前以針刺或刀片劃開皮膚，使血液流出，用於增加血液和淋巴的局部循環並改善皮下血流以緩解疼痛，也經常用於慢性疼痛病症的治療（Kim et al. 2011）。

## 拔罐療法用於治療慢性下背痛

慢性下背痛（CLBP）是全世界普遍的疾病，患病率從 30 歲到 60 歲持續增加，也是全世界最常見的背痛類型之一， 80% 的人在生命中至少遭受過一次這種疼痛，並且在 60% 的患者中會復發（Yazdanpanahi et al. 2017）。世界衛生組織報告指出，LBP

影響了 80%以上的人，在任何時候都影響了 4% 至 33% 的人口，並且與大量的經濟成本和生活品質損失相關（Moura et al. 2019）。而持續非特定性下背痛（PNSLBP）則是一種常見、慢性、復發性的疾病，其患者常傾向於尋求替代療法來緩解疼痛和不適（AlBedah et al. 2015）。然而單獨的藥理學治療通常不會有足夠的臨床效果，並且使用抗發炎藥可能導致負面的副作用，因此，下背痛患者經常使用輔助與整合醫學( Complementary & Integrated Medicine, CIM )療法，如針灸、徒手按摩、運氣治療或拔罐，而拔罐療法則是各種疼痛狀況常見的有效介入措施（Teut et al. 2018）。

## 一般拔罐用於治療慢性下背痛之相關實證研究

為了評估拔罐療法對改善慢性下背痛的有效性，Akbarzadeh 等人於 2013 年設計了一項臨床隨機試驗以探討 BL23 穴位拔罐治療對初產婦下背痛的影響，將 100 個樣本隨機分派到拔罐組或對照組，每天進行拔罐 15-20 分鐘，連續 4 天，以視覺類比量表（VAS）和 McGill 疼痛問卷由兩組在介入前後，後 24 小時和 2 週後完成。研究結果顯示實驗組 VAS 腰痛的平均強度與 McGill 疼痛問卷分數在治療介入後均有顯著降低，結論證實拔罐療法能有效降低疼痛，可以用作減輕下背痛的有效治療方法（Akbarzadeh et al. 2013）。針對相同部位，Yazdanpanahi 等人於 2017 年也發表了一項研究來評估拔罐療法對產前婦女下背痛嚴重程度的影響，對 150 名受試者進行拔罐治療，每隔一天進行一次，每週 4 次，每次 15-20 分鐘，同樣讓患者填寫簡短的 McGill 疼痛問卷，結果顯示實驗組產後下背痛強度的平均分數從介入前到治療後，生產後 24 小時和後 2 週均有顯著下降，該研究結果顯示此治療方法可以減輕下背疼痛，因此可以用於減少下背痛的有效治療方式（Yazdanpanahi et al. 2017）。

腰椎豎脊肌也是使用拔罐治療下背痛時經常選擇的部位。2014 年 Markowski 等人設計了一項研究，招募了 21 名背部疼痛至少 8 週的自願參加患者。在完成醫學篩檢問卷和收集基本資料後，於患者背部雙側腰椎豎脊肌上 4 個部位施加玻璃杯進行拔罐治療。以 Oswestry 失能問卷進行分數評估。介入前後的測量資料包括視覺類比量表( VAS )、腰椎活動範圍、直腿抬高測試 ( SLR ) 和用數字測力計評估感知疼痛 ( PPT )。完成研究的 17 名患者中，VAS 評分、SLR 運動與腰椎活動範圍和所有 4 個部位的 PPT，顯示在介入前後均有顯著改善。結論證實拔罐是一種低風險的治療方法，可迅速減輕慢性腰痛的相關症狀，也可以通過及時減少疼痛以及改善運動範圍，使患者及早進行功能性運動訓練（Markowski et al. 2014）。

為了評估不同形式的拔罐療法對慢性下背痛 ( CLBP )患者的療效，Teut 等人於 2018 年設計了一項隨機試驗，將 110 位 CLBP 患者隨機分派至強壓 (− 150 到− 350 mbar) 拔罐組 ( 37 位)、弱壓 (約- 70 mbar) 拔罐組 ( 36 位)和對照組 ( 37 位)，於 4 周內進行 8 次拔罐治療。主要評估結果是 4 週後視覺

類比量表（VAS）的疼痛強度，次要結果包括12週後的VAS疼痛強度和健康相關的生活品質問卷（SF-36）。試驗結果4週後平均 VAS 分析結果顯示強壓組與對照組，弱壓組與對照組之間皆達顯著差異，在 4 週和 12 週之後強壓組在 SF-36 物理量表上也比對照組有更好的改善，弱壓組與對照組比較則未達統計學差異。該研究結果顯示，兩種形式的拔罐均在 CLBP 的治療中有效，也能減少疼痛，改善生活品質（Teut et al. 2018）。

**濕拔罐用於治療慢性下背痛之相關實證研究**

Kim 等人於 2011 年進行了一項初步研究，評估濕拔罐技術治療持續且非特定性下背痛（PNSLBP）的有效性和安全性。實驗招募 32 名至少經歷 3 個月 PNSLBP 的受試者，實驗組21名，對照組 11 名。實驗組在 2 週內進行 6 次濕拔罐治療，並使用 0 到 100 的數字評定量表（NRS）、McGill 疼痛問卷（PPI）及 Oswestry 失能問卷（ODQ）為測量工具，結果顯示兩組在 PPI 分數達統計顯著差異，NRS 與 ODQ 則無顯著差異，結論表明濕拔罐可能對減少持續非特定性性下背痛相關的疼痛度具有潛在影響（Kim et al. 2011）。2015 年 AlBedah 等人同樣在一項臨床隨機試驗研究中使用 NRS、PPI 和 ODQ 來評估濕拔罐對 PNSLBP 的療效，將 80 名符合條件且患有 PNSLBP 至少 3 個月的參與者隨機分派至實驗組與對照組，實驗組於兩周內進行 6 次拔罐治療，結果顯示實驗組的三種結果指標與對照組比較，均達統計學顯著差異，且效果持續至額外兩週，期間並無出現副作用。結論表明濕拔罐可有效減輕疼痛並改善與 PNSLBP 相關的疾病症狀，且無相關副作用產生（AlBedah et al. 2015）。

2009 年 Farhadi 等人採用隨機試驗以評估濕拔罐治療對 PNSLBP 的療效。98 位年齡在 17-68 歲之間的非特異性腰痛患者，48 位隨機分為實驗組，50 位為對照組。實驗組患者進行每三天一次，三階段療程每次 20 分鐘，一週共三次的濕拔罐治療；對照組患者則接受一般醫生的常規照護，於治療介入三個月後評估 McGill 當前疼痛指數、Oswestry 失能指數和藥物量化量表之變化，結果顯示實驗組疼痛強度、疼痛相關失能、藥物使用之水平均顯著低於與對照組，結論證實濕拔罐療法比常規照護更具短期臨床效益（Farhadi et al. 2009）。

對於不同的濕拔罐技術是否有不同的效果，Sulaiman 等人於 2019 年發表了一項研究來評估比較傳統 Hijamah 和亞洲濕拔罐技術對慢性下背痛（CLBP）患者的療效差異。將 70 名符合條件的 CLBP 參與者隨機分配到傳統拔罐組或亞洲濕拔罐組。介入後第 7 天和第 14 天後使用評定量表測量當前疼痛強度和 McGill 疼痛問卷與 Oswestry 失能問卷評分，結果顯示在介入後當下、介入後第 7 天和第 14 天，兩組患者的評定量表顯示當前疼痛強度和 Oswestry 失能問卷分數均顯著下降。然而，在介入後 14 天內，兩組患者的所有指標均無顯著差異。此研究結果未顯示出兩種有顯著差異（Sulaiman et al.2019）。根據上述兩個研究指出，其一般拔罐及濕拔罐之治療下背痛成效上無有顯著差異存在。

| 作者及年代 | 研究目的 | 研究對象 (平均年齡 ± 標準差) | 介入部位 | 治療程序 | 追蹤期間 | 測量工具 | 成效 | 副作用 |
|---|---|---|---|---|---|---|---|---|
| Farhadi et al. 2009 | 評估濕拔罐治療對持續非特定性腰痛的療效<br><br>(濕罐) | 介: 48人<br>( 44.9 ± 14.8)<br>控: 50人<br>( 41.8 ± 13.9 ) | 兩個肩胛骨之間；腰椎與尾骨之間的骶骨區域；腓腸肌中間表面的小腿區域 | 每三天一次，一週三次三階段療程每次20分鐘 | 3個月 | 1. McGill疼痛指數 (PPI)<br>2.Oswestry失能量表 (ODI)<br>3. 藥物量化量 (MQS) | PPI (介) : 2.7 - 0.7<br>(控) : 2.7 - 2.8<br>ODI (介) : 31.4 - 15.6<br>(控) : 30.9 - 3.6<br>MQS (介) : 9.1 - 3.2<br>(控) : 9.0 - 9.7 | 3位患者在治療期間因血管 - 迷走神經休克而昏厥 |
| Kim et al. 2011 | 評估濕拔罐治療對持續非特定性下背痛的療效和安全性<br><br>(濕罐) | 介: 21人<br>( 44.2 ± 9.4)<br>控: 20人<br>( 48.1 ± 5.4 ) | BL23 ， BL24 和 BL25 中 的兩個穴位 | 2週內進行6次治療，每周3次，每次5分鐘 | 2週 | 1 .Numerical Rating Scale (NRS ; 0-100)<br>2. McGill疼痛問卷 (PPI)<br>3. Oswestry失能問卷分數(ODQ) | NRS (介) : 58.1 - 42.0<br>(控) : 52.7 - 43.6<br>PPI (介) : 2.4 -1.2<br>(控) : 1.9 – 1.7<br>ODQ (介) : 47.9 - 42.3<br>(控) : 48.0 - 46.2 | 無 |
| Akbarzadeh et al. 2013 | 研究BL23拔罐對初產婦女下背痛強度的影響 | 介: 50人<br>( 25.0 ± 4.2 )<br>控: 50人<br>( 27.0 ± 3.8 ) | BL23 | 一天治療一次，總共4天，每次15-20分鐘 | (1)馬上<br>(2) 24小時<br>(3)兩週 | 1. 疼痛視覺類比量表 (VAS ; 0-10)<br>2. McGill疼痛問卷 (PPI) | VAS (介) : 7.8 - 3.7 -2.5 - 1.4 (控): 7.6 - 6.4- 5.0 - 3.7<br>PPI (介) : 31.8 - 9.0 -7.5- 4.1 (控) : 31.8-29.2 - 21.7 - 14.0 | 無 |
| Markowski et al. 2014 | 評估拔罐對慢性下背痛(LBP)患者之減輕疼痛、降低壓痛、改善活動範圍的有效性 | 介: 17人<br>( 40.0 ± 7.2 ) | L4、L2雙側腰椎旁豎脊肌 | 10分鐘療程，直至每個杯子內之皮膚升高1.6 cm | 馬上 | 1. Oswestry失能問卷分數(ODQ)<br>2.腰椎活動範圍<br>3.直腿抬高測試 (SLR) | ODQ報告的失能水平與拔罐後腰背屈曲的改善之間存在密切關係 | 一位患者在拔罐後腰痛增加 |

| 作者及年代 | 研究目的 | 研究對象 (平均年齡 ± 標準差) | 介入部位 | 治療程序 | 追蹤期間 | 測量工具 | 成效 | 副作用 |
|---|---|---|---|---|---|---|---|---|
| AlBedah et al. 2015 | 評估濕拔罐療法作為治療持續非特定性下背痛的有效性和安全性(濕罐) | 介: 40 人 ( 36.48 ± 9.3 ) 控: 40 人 ( 36.43 ± 9.4 ) | BL23，BL24 和 BL25 中的兩個穴位 | 2 週內進行 6 次治療 | (1) 2 週 (2) 4 周 | 1. Numeric Rating Scale (NRS) 2.Oswestry 失能問卷分數(ODQ) 3. McGill 疼痛強度 | NRS(介) : 60.5-29.2-24.4 (控) : 56.2-57.9-56.3 ODQ(介) :38.3-19.6-15.2 (控) : 32.0-35.4-35.9 PPI(介) : 2.35-1.17-0.98 (控) : 2.13-2.3-2.3 | 無 |
| Yazdanpana-hi et al. 2017 | 評估針灸與拔罐療法對初產婦女產後下背痛嚴重度的療效 | 介: 50 人 ( 25.0 ± 4.2 ) 控: 50 人 ( 27.0 ± 3.8 ) | BL23 | 每隔一天進行一次，每週四次，每次 15-20 分鐘 | (1)馬上 (2)24 小時 (3)兩週 | McGill 疼痛問卷 (PPI) | PPI(介): 31.8-9.0-7.5-4.1 (控): 31.8-29.2-21.7-14.0 | 無 |
| Teut et al. 2018 | 評估兩種不同形式及壓力的拔罐療法對慢性下背痛患者的療效 | 介(強): 37 人 ( 49.0 ± 13.7 ) 介(弱): 36 人 ( 47.5 ± 13.8 ) | 腰部區域 | 4 周內接受 8 次療程，每次 8 分鐘 | 4 週 | 1.疼痛視覺類比量表 (VAS ; 0-100) 2. SF-36 健康生活質量問卷 | VAS 介(強): 53.2 - 34.9 介(弱): 60.3 – 40.4 SF-36 介(強): 39.1 - 43.8 介(弱): 38.2 – 39.5 | 8 名患者輕度背部肌肉痠痛 |
| Sulaiman et al.2019 | 比較傳統拔罐和亞洲濕拔罐技術對慢性下背痛患者的療效 (濕罐) | 傳統: 34 人 ( 40.62 ± 8.9 ) 亞洲: 36 人 ( 38.08 ± 8.24 ) | 雙側膀胱經絡 BL23、BL24、BL25 四個部位 | 雙側經絡選 4 點最痛部位，使刺血針穿刺 (用刀片劃傷)，放上杯子 5 分鐘後排氣取杯 | (1)馬上 (2) 7 天 (3) 14 天 | 1. Numeric Rating Scale (NRS) 2. McGill 疼痛問卷 (PPI) 3.Oswestry 失能問卷分數(ODQ) | 兩組間效果無顯著差異 | 無 |

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# Willingness to Pay for Reducing Low Back Pain for Patients Treated with Alternative Medicine

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## Abstract

**Background** The frequent recurrence and chronic characteristics of low back pain (LBP) is exasperating to patients. Willingness to pay (WTP) for relieving such pain may reveal how patients' preference would affect the selection of treatment on alternative medicine.

**Objectives** To estimate the WTP for LBP patients treated with alternative medicine and to assess whether the estimated WTP are related to the patients' pain experience and income levels in addition to other characteristics.

**Design** Direct interview survey, with open-ended bidding-game questions and binary questions

**Setting** The study was conducted by randomly allocating participants into sub-groups according to the hypothetical scenario that a creative or imaginative method will reduce LBP by 25, 50, 75, or 100% at a one-time effective treatment until next new episode.

**Participants** 505 subjects were questioned with open-ended bidding-game questions, and 509 with binary questions

**Results** With binary questions approach, participants with LBP experience were willing to pay amount ranging from NT$2,594 (US$76) to NT$6,474 (US$190) in parallel with an increase in reduction percentage, whereas the corresponding figures for those without experience were lower. The WTP were higher with open-ended bidding game approach but with a similar trend. The reduction percentage was the most substantial factor for higher WTP.

**Conclusions** Using bidding game and binary questions approaches, we demonstrated that the absolute estimates of WTP were different from the two methods but the increasing trend for WTP was in parallel with the increased percentage of LBP reduction.

**Key Words:** low back pain, willingness to pay, open-ended bidding-game questions, binary questions

**摘要**

**背景：**下背痛的頻繁復發及慢性疼痛特性經常困擾病患。患者為減輕疼痛所意願支付的金額，可以影響其對替代藥物的另類治療法的選擇。

**研究目的：**評估患者採用另類治療法時所意願支付的金額，以及評估該意願支付金額是否與患者的疼痛經驗、收入水平以及其他因素的相關。

**研究設計：**採用開放式競標問卷 (open-ended bidding-game questions)和二元問卷(binary questions)直接對受試者詢問。

**調查方式：**通過一種假設情景：在一次有效治療下直到下一次復發，下背痛可以降低 25%，50%，75%或 100%時，患者願意支付的金額。

**受試者：**將受試者隨機分組，509 名接受了二元問卷，而 505 名接受開放式競標問卷。

**結果:**採用二元問卷時,具有下背痛經驗的受試者願意支付的金額從新台幣 2,594 元（76 美元）到新台幣 6,474 元（190 美元），並隨減少疼痛的百分比而有所增加；而沒有疼痛經驗的受試者其相對應的金額則較低。採用開放式競標問卷的意願支付金額比較高，但趨勢相似。降低疼痛百分比是提高意願支付金額的最重要因素。

**結論：**使用開放式競標問卷和二元問卷，我們證明了兩種問卷方法下，意願支付金額的絕對估計值不同，但是意願支付金額的增加趨勢與下背痛減少百分比的增加平行。

**關鍵詞：**下背痛，意願支付金額，開放式競標問卷，二元問卷

## Introduction

To consider patients' preference for intervention and treatment in cost-effectiveness and cost-benefit analysis (1), patients would express how much money they are prepared to pay for an increased benefit given by a particular intervention or treatment, which is called the "willingness to pay" (WTP). WTP has been extensively used in economic evaluation of health care (2-4) to estimate the maximum amount of the consumer will pay up to value interventions, such as vaccine, screening, treatment, and related medical services. This method pursues the consistent results standing for personal preference for an intervention program targeted at well-recognized outcomes by giving various probabilities, such as heart attack and death in comparison with their preference for the intervention program in question (5).

While previous studies have established the validity and reliability of WTP estimate in many health care applications to avoid severe diseases (6-13), there is a neglect aspect of the WTP for

treating less tangible but more common outcomes, such as low back pain (LBP), one of the common unpleasant pain experiences, with a prevalence of 60% to 90 % in the U.S. (14), and 35% to 90 % in different occupational fields in Taiwan (15). Severe morbidity and mortality outcomes of LBP are rare, but its frequent recurrence and chronic nature do exasperate victims. Due to this property, patients with recurrence of LBP often sought alternative medicine. To grasp patients' preference for alternative treatment for LBP, it is therefore necessary to estimate the WTP for LBP patients treated with alternative medicine in order to apprehend that patients were prepared to pay more for reducing LBP and to assess whether the estimated WTP are related to the patients' pain experience and income levels in addition to other characteristics.

## Methods

### Study Population

In Taiwan, the National Health Insurance (NHI) Program has been launched since 1995 with almost full coverage. People prepay premium monthly and to co-pay when requesting for medical services. Most of the people look for pain relief from this system with charges ranging from NT$150 (US$4.4) to NT$500 (US$14.7) in each visit. Therefore, we defined our target population as those who sought alternative medical services beyond NHI and were willing to pay extra from their pocket. Patients together with their relatives and friends, no matter with or without LBP experiences, were invited to answer the WTP. The survey was conducted during the period between Dec. 10, 2003 and Mar. 14, 2004.

### Methods for Estimating WTP

The estimate of WTP is through either interviews or postal questionnaires using the two techniques: open-ended bidding-game (OBG) approach and binary questions (BQ) approach (16). Both techniques followed the three criteria for a valid use of the application of willingness to pay (17), including (1) a hypothetical scenario with probability of needing treatment; (2) individual needs for health care offering for a defined population; and (3) WTP questions asking how much a person is willing to pay an available given service.

A group with members from fields of orthopedic, rehabilitation, general practitioners, nursing, public health and patients with LBP experience was organized to develop the questionnaires. Potential explanatory variables included demographic characteristics, income level, whether or not the responder is the main financier in his/her family, experiences in LBP, pain duration, previous treatment outcome, recurrence, and current pain scores.

### Hypothetical Scenarios

The scenario in Chinese or Taiwanese was described as below:

"Based on your previous experiences and/or understandings on LBP, imagining that you have one episode of LBP and there is a newly innovated treatment method which can, at one time,

relieve your LBP by a percentage (see below) until next event which causes a fresh pain on your low back. You have to pay an amount for such treatment out of your pocket from your income. Which amount is the maximum that you are willing to pay?"

**Reduction percentages**

The percentages of pain reduction were assigned with the order of 25%, 50%, 75% and 100%. According to the National Oceanic and Atmospheric Administration, contingent valuation studies to demonstrate that WTP increases with the size of the goods should be conducted by using different sub-samples of responders (18). Separate questionnaires for sub-samples by different reduction percentages were thus used in this study to avoid confusion to the responders.

**Random assignment for data collection**

The random assignment was conducted firstly by dividing responders into two groups: OBG and BQ. Then each group was further divided into four sub-samples by pain reduction percentage i.e. 25%, 50%, 75% or 100%. On a convenient basis, when a small group of people was formed, whose number might vary, they were assigned to fill the same reduction percentage questionnaire and answer the corresponding WTP questions. In other words, the first small group of people would answer the BQ with the percentage of 25% reduction; the second small group of people would answer the BQ with the percentage of 50% reduction, and so on. Therefore the eighth group would answer the OBG with the percentage of 100% reduction. Then, a new cycle would start again. This method facilitated the biddings to be processed effectively. Direct interview for data collection was adopted to increase the response rate.

For BQ, the bid amounts in our study were NT$500; 1,000; 2,000; 5,000; 10,000; 20,000; 50,000 (US$1 =NT$34), which were concluded by considering the factors of existing market charges, ranging from NT$150 to NT$500 per visit for the current treatment, official basic wage rate (NT$15,840), market charges of alternative medical services, and the co-payment requirements of NHI. Each participant was firstly asked to answer the pre-determined amount of willingness to pay starting from NT$500 to NT$50,000 in each of the four categories pertaining to 25, 50, 75, and 100% possibility of reducing the LBP as mentioned above. Those answering "yes" were asked the same question for the next higher level of amount until the highest amount they expressed when the respondents answered "no". For OBG, participants were asked to provide the largest amount which they were willing to pay for the treatment modality of reducing the LBP with 25, 50, 75, and 100% possibility depending on which group he/she belonged to.

**Statistical Analysis**

Descriptive statistics for demographic features and potential explanatory factors were provided by OBG and BQ, and further compared between the two groups with Student's *t*-test for continuous variables and $\chi^2$ test for categorical variables. WTP in the two groups were further described by four sub-samples of different pain reduction percentage. Although the BQ method is based on a binary question (yes/no), the estimated WTP is still a variable of interval scale by the categories of the percentage of LBP reduction. The descriptive results were therefore reported by the mean/median WTP. In addition, a multi-variable linear regression model was conducted by taking WTP as the outcome with the property of interval-scaled variable. The multi-variable linear regression models were therefore employed to assess the effects of reduction percentage and all other potential explanatory variables in both OBG and BQ groups, and further applied to subgroups with and without LBP experience. The stepwise selection method was then used to pick up those with significant effects on WTP. The criteria for both entering into and staying in the model were set as p values less than 0.15. We also dichotomized subjects into two groups, with high and low WTP, according to the median values in OBG and BQ groups, separately. The logistic regression models with stepwise selection methods were adopted to identify factors in association with high WTP in both OBG and BG groups, and subgroups in OBG and BG by LBP experience. P values less than alpha level of 0.05 were considered as statistically significant. All analyses were conducted in SAS version 9.2.

## Results

A total of 1,014 subjects (505 in OBG, 509 in BQ) participated in this study. Table 1 shows the baseline comparisons between these two groups. There was lacking of statistical differences regarding the background variables between the two groups. The baseline characteristics by sub-samples in each group and by LBP experience were also compared. There were lacking of statistical differences for all the variables.

Figure 1 shows the comparison of mean WTP values of these two groups by the four categories of reduction percentage. Those obtained from BQ were lower than those from OBG, which might result from the already pre-set bid amount in BQ questionnaires. Table 2 shows the comparison on WTP values between the two groups and by LBP experience and pain reduction percentage in means and standard deviations. In OBG, an extreme high amount of bid (NT$200,000) for one individual was noted in the category of 50% reduction sub-sample. If this outlier was excluded, the mean WTP value revealed an increasing trend of 24%, 42% and 53% for reduction percentage of 50%, 75%, and 100% respectively with or without LBP experience. Similar situation was found in those with LBP experience, who would pay higher than those without LBP experience. In BQ, the same pattern was found in the OBG was also noted, except one discrepancy in the group of

LBP experience with 75% pain reduction.

Table 3 reveals potential explanatory variables in relation to WTP by reduction percentage of four groups and LBP experience in multi-variable linear regression models. For OBG, more reduction percentage with the requested therapy ($p<0.001$), pain scores ($p<0.001$), and duration of pain ($p<0.05$) led to a NT$3553, NT$172, and NT$30 increase of WTP, respectively. Male had also higher WTP. Reduction percentage remained a significant factor when patients were stratified by the LBP status. Among LBP patients, pain scores and duration period were also statistically significant. For BQ, more reduction percentage led to a significant increase of WTP by 1527 ($p<0.001$). Reduction percentage was still statistically significant for BQ ($p<0.01$), when only patients with LBP were concerned, but not for those without LBP ($p>0.05$). For BQ, other significant covariates included longer pain duration which was positively associated with WTP for all patients, and severe pain scores resulting in higher WTP as far as only patients with LBP were concerned.

Table 4 shows the estimated results of multi-variable regression models with explanatory variables selected by stepwise procedure. For OBG, more reduction percentage, male, higher income, severe pain score, and longer duration of LBP was positively associated with WTP. Regarding patients with LBP, significant factors still remained including reduction percentage, pain score, and cured outcome from previous experience, whereas it was only reduction percentage related to WTP for those without LBP experience. For BQ, more reduction percentage, advancing age, main family financier, and severe pain score were related to higher WTP. When only patients with LBP were concerned, factors such as reduction percentage, married, main family financier, and severe pain score were statistically significant. Interestingly, for those without experience of LBP, advancing age was the only significant covariate for WTP was requested by BQ.

Table 5 shows the estimated odds ratio in the multi-variable logistic regression models with covariates selected by stepwise procedure. For OBG, the higher percentage reduction led to 72% (95% CI: 42-108%) higher risk of being prepared to pay more. Elderly age (OR=1.03, 95% CI: 1.01-1.04) and severe pain score (OR=1.02, 95% CI: 1.01, 1.03) were also significant variables. When only patients with LBP were concerned, in addition to the three previously mentioned factors, income and the previous treatment outcome were also significant. For those without LBP experience, it was only reduction percentage associated with WTP. For BQ, reduction percentage was significant with or without considering patients experience of LBP. Interestingly, more socio-demographic variables (age, sex, marriage, and income) were related to WTP using the BQ approach than those using the OBG approach. Pain score was still an important factor.

## Discussion

### WTP Survey for LBP by OBG and BQ

This is the WTP survey for LBP conducted, to the best of our knowledge for the first time, among the Taiwanese people who used to seek alternative medical care. Participants either with or without LBP are all requested to provide information regarding WTP for four categories pertaining to the percentage of LBP reduction. We conducted our small group interview with a briefer who gave the hypothetic scenario by following the above suggestion is effective in obtaining responses. Under such a circumstance the OBG technique give responders all the necessary considerations. On the contrary, the BQ approach limits the responders to the pre-set bid amounts without the consideration of other factors. BQ technique is a form of discrete-choice experiments originated from market research and has been adopted by health economists to assess the value to consumers' changes in levels of health care interventions. Discrete-choice experiments have been applied successfully in establishing preferences in several areas of health care decision making, such as to evaluate costs and benefits directly in respiratory and cardiovascular conditions and osteoarthritis (12). OBG, resembling an auction, is the most common approach to obtain WTP. Elicitation of the maximum willingness to pay employs a bidding game in which an initial bid is raised or lowed until the maximum WTP is reached (19). As both methods for eliciting the WTP may vary with the scenario in question, the different estimated results would be expected. In our survey the mean bid amount for a 100% pain reduction is NT$17,427 (US$512, or 110% of the official basic monthly wage in Taiwan) for OBG; and NT$5960 (US$ 175 or 38%) for BQ. Income was associated with the estimated WTP obtained from OBG but not that obtained from BQ. Thanks to the disparity of income of contribution to WTP estimates, it is not adequate to compare the absolute WTP values between the two methods. The reason for a higher WTP of OBG in comparison with that of BQ is that the former may strongly expressed the extent of willingness to pay, rather than the affordability of payment, for reducing LBP but the latter may be guided by the price set by the principal investigator rather than the degree of informant willingness. What the absolute WTP estimates obtained from the two methods are relative comparison of the categories of percentage of LBP reductions. Figure 1 demonstrates the similar trends but different absolute estimates of WTP. Both approaches commonly used in the contingent evaluation method were used to estimate the WTP.

### WTP Studies on various diseases

There are a few studies estimating the WTP for treating various diseases. In a case that WTP was used to value the effect of a hypothetical cure on rheumatoid arthritis with results that the average responder was willing to pay 22% of their household income to secure a cure for arthritis. This proportion did not vary

with income (6). While the WTP for reduction in Angina pectoris attacks showed that responder would pay for US$ 345 by BQ, and US$290 by OBG for 50% reduction of attack rate, to which the income is related (7). Another willingness to pay study for antihypertensive therapy concluded that OBG did not work well in willingness to pay by postal surveys. Discrete-choice questions, like our BQ method, on the other hand, led to a lower non-response rate and provided responders with an easier valuation task (9). A household survey study found that less education, lower income and expenditure, less episodes of diseases and lower ratio of becoming household head, and higher marriage rate influenced the WTP difference between men and women (20, 21).

In our analysis, sex and marriage were also found of significant effect, although not in all groups. We did examine the factors that could affect the WTP value, e.g. age, sex, marriage, education, income, household head etc. It is widely recognized that the larger WTP value may reflect the higher social economic status of that population. This was addressed in this study through initial value iteration in the binary questions. Our initial value was limited to NT$500 (US$15), and the highest is NT$50,000 (US$1470).

**Methodological concerns**

There are several concerns raised in this study. The main problem with the bidding game approach is that the reported WTP is likely to be affected by the size of the first bid offered i.e., so called starting-point bias (22, 23). To avoid the starting point bias, free from both ends based on their experiences and understandings is essential. As the price of bids were raised or lowered until the convergence, the responder was presented with a series of prices and asked to offer a yes/no answer depending on their personal willingness to pay. This approach is less susceptible to starting point bias, the respondent's answers apt to be influenced by the starting bid (6). Of the total 1014 responders 124 or 12.2% gave "zero amounts" bids. The pattern of the results remained similar when these zero bids were excluded, partly because LBP is not life-threatening and partly because they are not willing to pay for a treatment pain as long as the pain is tolerable. The mean bid amounts revealed that WTP values were elevated in the trend regarding the reduction percentage in both OBG and BQ. There are no benchmarks to judge whether the cost of a therapy that affects this one time of reduction of LBP is worthwhile. Our study shows the relationship between disease severity and WTP was positively correlated suggesting that as disease severity increases, people have higher WTP values for relieving the symptoms.

As far as the discrepancy of absolute mean values of WTP from the two methods and the zero WTP were concerned, we used a logistic regression model to investigate factors associated with high willing to pay for treating LBP.

With this method, subjects were dichotomized into two groups, high and low WTP. In this case, the extremely high WTP (NT$200,000) in the 50% reduction sub-sample in OBG and the 12.2% participants with zero WTP would not affect the results dramatically.

Willingness to pay technique involves hypothetical expenditures rather than an actual purchasing. Money is the most simple and unambiguous way for individuals to express the strength of their preferences for treatment characteristics. The magnitude of the monetary values appeared rather large for complete relief of symptoms. It is not clear that patients would commit to pay this amount over the long term. Those who have experienced LBP are in a better position to judge the value of those interventions. Those who have severe pain had a more vivid realization of how much unpleasant these symptoms were and hence attached a larger sum to avoid LBP in the future.

In conclusion, this study demonstrates how to estimate the WTP that it is possible to establish individuals' value for a reduction of low back pain by using the open biding game and binary question. The results show both absolute estimates of WTP were different but the increasing trend for WTP was in parallel with the increased percentage of LBP reduction.

## Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

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## Figure Legends

Figure 1 Willingness-to-pay measured with open-ended bidding game and binary questions

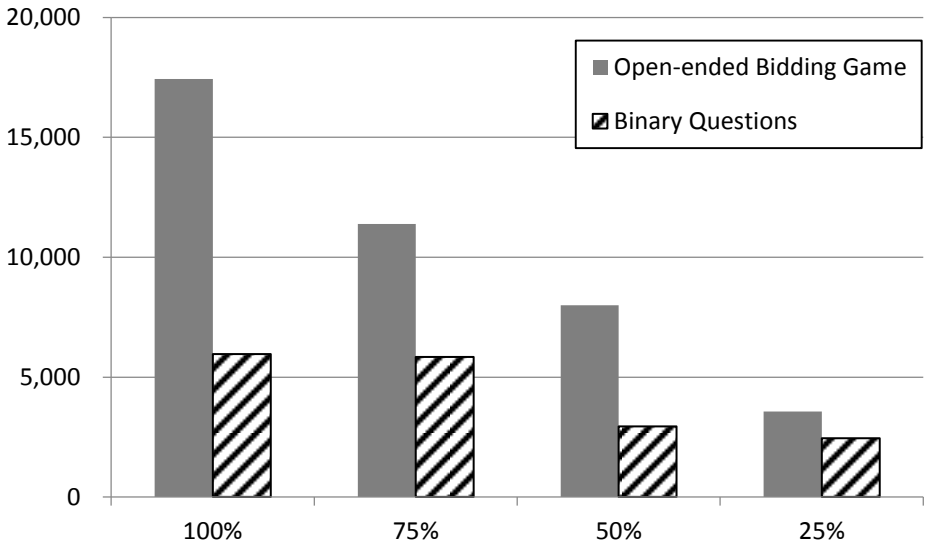

Table 1 Comparison of baseline characteristics of responders between open-ended bidding game and binary questions

| Baseline Item | Open-ended Bidding Game N=505 | Binary Questions N=509 | $\|t\|$ / $\chi^2$ Value | P value |
|---|---|---|---|---|
| Age (y) | | | 0.66 | 0.5071 |
| Range | 2~74 | 8~76 | | |
| Mean(SD) | 39.8 (12.0) | 40.3 (13.3) | | |
| Sex | | | 0.1778 | 0.6733 |
| Male | 175 | 170 | | |
| Female | 330 | 339 | | |
| Marriage | | | 0.0828 | 0.7735 |
| Single | 155 | 152 | | |
| Married | 350 | 357 | | |
| Education | | | 7.0427 | 0.0705 |
| ≧graduate school | 49 | 37 | | |
| Univ./college | 275 | 270 | | |
| High school | 141 | 140 | | |
| ≦Junior school | 38 | 61 | | |
| Occupation | | | 6.8479 | 0.1441 |
| None | 29 | 49 | | |
| Student | 34 | 41 | | |
| House keeper | 63 | 64 | | |
| Office worker | 303 | 284 | | |
| Labor | 76 | 68 | | |
| Income NT1000/y | | | 8.1370 | 0.0867 |
| None | 88 | 105 | | |
| ≦300 | 67 | 86 | | |
| 300~600 | 195 | 189 | | |
| 600~1000 | 109 | 84 | | |

| Baseline Item | Open-ended Bidding Game N=505 | Binary Questions N=509 | $\|t\|$ / $\chi^2$ Value | P value |
|---|---|---|---|---|
| ≧1000 | 46 | 38 | | |
| Main family financier | | | 0.2121 | 0.6451 |
| Yes | 226 | 275 | | |
| No | 279 | 210 | | |
| LBP experience | | | 0.0185 | 0.8917 |
| Yes | 370 | 371 | | |
| No | 135 | 138 | | |
| Pain duration (m) | | | 0.02 | 0.9826 |
| Range | 0~1212 | 0~384 | | |
| Mean(SD) | 38.3 (84.08) | 38.2 (62.6) | | |
| Treatment outcome | | | 0.3132 | 0.8550 |
| Cured | 217 | 228 | | |
| Alleviated | 213 | 209 | | |
| No improved | 72 | 70 | | |
| Recurrence | | | 0.1800 | 0.6713 |
| Yes | 256 | 269 | | |
| No | 238 | 237 | | |
| Present pain score (0~100) | | | 0.88 | 0.3787 |
| Range | 0~100 | 0~100 | | |
| Mean(SD) | 22.7 (26.4) | 21.2 (24.7) | | |

Table 2 Comparison of willingness to pay values by group, percentage reduction, and LBP experience (In NT$, NT$34=US$1)

| Reduction percentage | Open-ended Bidding Game N=505 | | | | Binary Questions N=509 | | | |
|---|---|---|---|---|---|---|---|---|
| | 25% | 50% | 75% | 100% | 25% | 50% | 75% | 100% |
| No. of responder | N=111 | N=162 | N=109 | N=123 | N=149 | N=122 | N=112 | N=126 |
| WTP: Mean | 3563 | 7996 | 11382 | 17427 | 2440 | 2934 | 5830 | 5960 |
| STD | 7156 | 22248 | 21611 | 28404 | 7413 | 5778 | 11497 | 12253 |
| LBP experience(+) | n=81 | n=112 | n=78 | n=99 | n=90 | n=92 | n=91 | n=98 |
| WTP: Mean | 3764 | 10866 | 11962 | 16167 | 2594 | 2826 | 6571 | 6474 |
| STD | 7619 | 26218 | 23001 | 25948 | 7707 | 6124 | 12463 | 12953 |
| LBP experience(--) | n=30 | n=50 | n=31 | n=24 | n=59 | n=30 | n=21 | n=28 |
| WTP: Mean | 3020 | 1566 | 9923 | 22625 | 2203 | 3267 | 2619 | 4161 |
| STD | 5801 | 2869 | 17898 | 37091 | 6997 | 4633 | 4607 | 9378 |

Table 3 Estimated regression coefficients of multi-variable linear regression models for explanatory variables associated with willingness to pay by group and low back pain experience

| Explanatory variables | Open-ended Bidding Game | | | | | | Binary Questions | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All | | LBP(+)[a] | | LBP(--)[b] | | All | | LBP(+)[a] | | LBP(--)[b] | |
| | Reg. Coef. | P value | Reg. Coef. | P value | Reg. Coef. | P value | Reg. Coef. | P value | Reg. Coef. | P value | Reg. Coef. | P value |
| Reduction percentage | 3553.0 | 0.0002 | 2693.8 | 0.0199 | 6111.7 | 0.0003 | 1527.1 | 0.0003 | 1897.4 | 0.0011 | 587.2 | 0.2599 |
| Age | 129.4 | 0.2478 | 171.5 | 0.2184 | 73.7 | 0.6939 | 56.6 | 0.1855 | 4.3 | 0.9455 | 158.4 | 0.0015 |
| Sex | 5987.3 | 0.0124 | 5608.6 | 0.0736 | 6402.9 | 0.0803 | 1409.3 | 0.199 | 1499.8 | 0.3156 | 1056.0 | 0.4426 |
| Marriage | 880.6 | 0.7571 | 840.0 | 0.8193 | 997.5 | 0.8190 | 1134.2 | 0.3651 | 2582.4 | 0.1357 | -1377.8 | 0.3757 |
| Education | -1092.9 | 0.6739 | -3135.1 | 0.3252 | 4879.7 | 0.2802 | 1328.4 | 0.2373 | 1649.9 | 0.2984 | 250.7 | 0.8568 |
| Occupation: None/others | | 0.4211 | | 0.6371 | | 0.8143 | | 0.1413 | | 0.2961 | | 0.4501 |
| None/others | (Reference) | | (Reference) | | (Reference) | | (Reference) | | (Reference) | | (Reference) | |
| Officer | 1584.8 | | 2024.9 | | -211.7 | | -1737.2 | | -2260.1 | | -1420.4 | |
| Labor | 4817.5 | | 4366.6 | | 3291.9 | | -3566.8 | | -3745.0 | | -2854.3 | |
| Income | 1945.9 | 0.1165 | 2198.4 | 0.1412 | 1056.0 | 0.6471 | 462.9 | 0.4402 | 416.1 | 0.618 | 554.3 | 0.4324 |
| Main family financier | -1347.4 | 0.6002 | -1234.1 | 0.7101 | 351.3 | 0.9296 | 1650.6 | 0.176 | 2321.4 | 0.1531 | 913.0 | 0.5743 |
| LBP experience | 379.1 | 0.9089 | | | | | 123.1 | 0.9324 | | | | |
| Pain scores | 171.9 | 0.0009 | 176.4 | 0.0014 | | | 76.0 | 0.002 | 71.2 | 0.0098 | | |
| Pain duration group | 30.3 | 0.0195 | 30.0 | 0.0299 | | | 13.2 | 0.126 | 13.0 | 0.1762 | | |
| Treatment outcome: | | 0.2751 | | 0.2696 | | | | 0.1661 | | 0.2374 | | |
| No improvement | (Reference) | | (Reference) | | | | (Reference) | | (Reference) | | | |
| Cured | 3828.0 | | 4866.0 | | | | 1425.2 | | 1229.1 | | | |
| Alleviated | -1330.6 | | -658.1 | | | | -1234.4 | | -1376.4 | | | |

[a] with low back pain experience
[b] without low back pain experience

Table 4 Estimated regression coefficients of multi-variable linear regression models for explanatory variables with stepwise selection for willingness to pay by group and low back pain experience

| Explanatory variables | Open-ended Bidding Game | | | | | | Binary Questions | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All | | LBP(+)[a] | | LBP(-)[b] | | All | | LBP(+)[a] | | LBP(-)[b] | |
| | Reg. Coef. | P value | Reg. Coef. | P value | Reg. Coef. | P value | Reg. Coef. | P value | Reg. Coef. | P value | Reg. Coef. | P value |
| Reduction percentage | 3500.0 | 0.0002 | 2517.1 | 0.0274 | 6164.1 | 0.0001 | 1427.2 | 0.0003 | 1673.6 | 0.0029 | | |
| Age | 148.0 | 0.0903 | 215.1 | 0.0524 | | | 88.2 | 0.008 | | | 153.4 | 0.0003 |
| Sex | 5832.4 | 0.0085 | 5444.4 | 0.0575 | 6400.5 | 0.0533 | | | | | | |
| Marriage | | | | | | | | | 2751.6 | 0.0497 | | |
| Income | 2022.8 | 0.0222 | 2018.6 | 0.0642 | 2122.1 | 0.1378 | | | | | | |
| Main family financier | | | | | | | 2173.3 | 0.0149 | 2678.2 | 0.0291 | | |
| Pain scores | 173.4 | 0.0005 | 174.4 | 0.0011 | | | 58.8 | 0.0011 | 75.4 | 0.0026 | | |
| Pain duration group | 30.8 | 0.0157 | 29.7 | 0.0295 | | | | | | | | |
| Outcome: Cured | 4296.2 | 0.0971 | 4828.3 | 0.146 | | | | | | | | |

[a] with low back pain experience
[b] without low back pain experience

Table 5 Estimated odds ratio in the multi-variable logistic regression models for explanatory variables with stepwise selection for willingness to pay by group and low back pain experience

| Explanatory variables | Open-ended Bidding Game | | | | | | Binary Questions | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All | | LBP(+)a | | LBP(--)b | | All | | LBP(+)a | | LBP(--)b | |
| | OR (95% CI) | P value | OR (95% CI) | P value | OR (95% CI) | P value | OR (95% CI) | P value | OR (95% CI) | P value | OR (95% CI) | P value |
| Reduction Percentage | 1.72 (1.42 ,2.08) | <0.0001 | 1.66 (1.33 ,2.08) | <0.0001 | 1.91 (1.31 ,2.79) | 0.0009 | 1.52 (1.25 ,1.84) | <.0001 | 1.40 (1.10 ,1.78) | 0.0055 | 1.63 (1.17 ,2.28) | 0.0038 |
| Age | 1.03 (1.01 ,1.04) | 0.0119 | 1.03 (1.01 ,1.05) | 0.0123 | | | 1.04 (1.02 ,1.06) | <.0001 | 1.02 (1.00 ,1.04) | 0.1033 | 1.06 (1.02 ,1.09) | 0.0033 |
| Sex | | | | | | | 1.96 (1.26 ,3.06) | 0.0029 | 2.27 (1.22 ,4.24) | 0.01 | | |
| Marriage | | | | | | | | | 2.39 (1.14 ,5.01) | 0.0209 | 0.46 (0.17 ,1.26) | 0.1304 |
| Education | 1.59 (0.97 ,2.61) | 0.0676 | | | | | 1.63 (1.02 ,2.60) | 0.0419 | | | | |
| Income | 1.19 (0.98 ,1.44) | 0.0746 | 1.34 (1.09 ,1.65) | 0.0055 | | | | | | | | |
| Main family financier | | | | | | | | | 1.65 (0.95 ,2.87) | 0.0735 | | |
| Pain scores | 1.02 (1.01 ,1.03) | <.0001 | 1.03 (1.02 ,1.04) | <.0001 | | | 1.01 (1.00 ,1.02) | 0.0039 | 1.01 (1.00 ,1.03) | 0.0083 | | |
| Pain duration group | | | | | | | | | 1.00 (0.99 ,1.00) | 0.1158 | | |
| Treatment outcome: | | | | 0.0136 | | | | | | | | |
| No improvement | | | 1.00 | | | | | | | | | |
| Cured | | | 3.43 (1.43 ,8.23) | | | | | | | | | |
| Alleviated | | | 1.41 (0.73 ,2.73) | | | | | | | | | |

[a] with low back pain experience
[b] without low back pain experience Numbers in parenthesis were 95% confidence interval

# Economic Evaluation on Acupressure versus Physical Therapy in Reducing Low Back Pain

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**Abstract:**

**Background:** Acupressure is documented effective in reducing low back pain but no economic evaluation is reported.

**Objective**s: An economic evaluation is performed to evaluate the cost-effectiveness and cost benefit of acupressure, compared to physical therapy, in reducing low back pain.

**Materials and Methods:** The effectiveness in terms of pain intensity, functional status, disability and pain descriptor of acupressure and physical therapy in reducing low back pain is obtained from literature. Related medical cost estimates are solicited from experts of the field for cost-effectiveness analysis.

**Results:** The cost for one treatment is NT$183 (US$5.4) for acupressure and NT$271 (US$8.0) for physical therapy, resulted to 0.68 cost ratio. Physical therapy was dominated by acupressure in terms of all the four measurements (incremental cost effectiveness ratio=5 for pain intensity; 10 for functional status; 20 for disability; and 40 for pain descriptors). The cost benefit ratios are all favorable to acupressure, with overall relative cost-benefit ratio of 5.9.

**Conclusions:** Acupressure is cost-effective and cost-beneficial than physical therapy in reducing low back pain in terms of pain scores, functional status, disability, and pain descriptor.

**Keywords:** Economic evaluation, willingness to pay, acupressure, physical therapy, low back pain

**摘要**

**背景：**穴壓在減輕下背痛的成效已有文章發表，但仍未有經濟評估方面的報告。

**目的：**進行穴壓相較物理治療對減輕下背痛之成本效益與成本利益分析。

**材料與方法：**由文獻獲得穴壓與物理治療二種方法對減輕下背痛之效益，以疼痛強度、功能狀態、失能情形、和對疼痛的主述去衡量。經濟評估所需之相關的醫療成本則徵詢這個領域專家。

**結果：**穴壓每次治療成本為新台幣 183 元 (美金 5.4 元)，而物理治療則為新台幣 271 元 (美金 8 元)，二者之成本比為 0.68。利用不同評估指標所得穴壓相對物理治療的平均成本效益比值分別為在減輕疼痛強度上為 5 倍;在減緩功能喪失上為 10 倍;減緩失能上為 20 倍; 在減少疼痛描述上為 40 倍。故穴壓在各方面均優於物理治療。以成本利益比來看也是穴壓較優，其整體的比值為 5.9。

**結論：** 穴壓相較物理治療對減輕下背痛在疼痛強度、功能狀態、失能情形、和對疼痛的描述等方面均是具成本效益和成本利益的。

**關鍵字：** 經濟評估、意願付費金額、穴壓、物理治療、下背痛

## Introduction

Low back pain (LBP) is the most predominant prevalent and major complaint in the primary medical care system (1) Epidemiological studies have shown that LBP entails a 90% indirect monetary cost as a result of subsequent long-term illness but only a 10% direct treatment cost. (2~3) Due to frequent recurrent episodes that largely affect daily work and life, LBP has long been studied for effects of various management including analgesics, physical therapy and alternative medicines. (4) However, the economic evaluation on these programs and their costs in healthcare settings has not been reported.

Effectiveness of acupressure and physical therapy has been documented by two randomized controlled clinical trials. (5~6) Consequently, we perform an economic evaluation by estimating related medical costs and conducting a “Willingness to Pay (WTP)” study for cost-effectiveness and cost-benefit analyses on acupressure, compared to physical therapy, in relieving LBP.

## Methods

### Study Design and Participants

There are 146 patients recruited from December 1, 2000 to February 28, 2001 in the trial with pain descriptors in Chinese Short Form-McGill Pain Questionnaire (SF-MPQ) as outcome measures; (5) and 129 patients recruited from January 8, 2004 to April 12, 2004 in the trial using Chinese versions of Roland and Morris Disability Questionnaire (RMDQ), modified version of the Oswestry Disability Questionnaire (ODQ) and Visual Analog Scale (VAS) as outcome measures. (6) In both trials, randomization is the study design to investigate and compare effectiveness of acupressure with that of physical therapy in alleviating LBP. Participants are recruited from outpatient department (OPD) patients from an orthopedic specialized hospital/clinic in Kaoshiung,

Taiwan which offers standard physical therapy for patients with chronic LBP. The randomization procedure and inclusion criteria are identical.

## Intervention

Either acupressure or physical therapy is given six sessions in one month in a rehabilitation care unit associated with the study settings.

***Physical therapy*:** Physical therapy, the mainstay for managing chronic LBP in Taiwan, follows the routine regimen offered by a rehabilitation care center associated with an orthopedic special clinic. Techniques include thermotherapy, infrared light therapy, ultrasound therapy, magnetic field therapy, electrical stimulation, manual and mechanical manipulations, and their combination as necessary as decided by the responsible physical therapist.

***Acupressure*:** Acupressure treatment is performed by a senior therapist to ensure the consistent technique across patients. Acupressure, a non-toxic and non-invasive pressing stimulation over meridians and acupoints, monitors the functioning of human organs. Each acupoint represents a particular tissue, organ, and system; and reflects the body's physical conditions. Stimulation on acupoints influences the body's ability to function regarding the respective tissues or organs. The treatment effect may be altered through these points by controlling the flow and action of Qi owned by the therapist. In both trials, the acupressure therapist is identical.

## Outcome Measures

Effectiveness is measured by scorings with SF-MPQ, RMDQ, modified version of the ODQ and VAS. All of these are worldwide gold standard for evaluating pain intensity, functional status, disability or pain descriptor. Chinese versions of these questionnaires used in the trials are properly developed with satisfactory reliability and validity verification. The effectiveness data are presented in Table 1.

## Results

## Costs Estimates

Cost estimates are based on following assumptions:

1. To follow the current operating pattern that physical therapy is carried out in settings where the effectiveness investigation studies are conducted. The acupressure care unit is an independent one.
2. In the setting, the number of patients is estimated to be160 cases a day with serving hours eight hours a day, 25 days a month, of which 75% are for physical therapy and, in turn, among them 75% are with low back pain. Consequently, there are 2,250 cases a month of patients who are with chronic LBP and need physical therapy.
3. The clinic with 10 beds is located in the South Taiwan, offering standard medical and rehabilitation services including diagnosis and treatment for orthopedic problems other than surgery, general primary complaints and physical therapy. 3 beds for acupressure, offering

standard acupressure technique for chronic LBP patients.

4. The medical cost estimates consist of three parts: premises and equipment investment, personnel expenses, and material costs.
5. Estimations are solicited from: owners of clinics with similar services, suppliers of equipment and materials, and medical personnel including medical doctors, physical therapists and acupressure therapists.
6. Amounts provided are tailored for serving 2,250 patients a month.

It comes out NT$183 for acupressure and NT$271 for physical therapy on a **one treatment basis**, and the overall related cost ratio is 0.68 as presented in Table 1.

**Cost Effectiveness Analysis**

The cost estimates and comparison of effectiveness between acupressure and physical therapy are shown in Table 1. Because costs are on a one treatment basis, the number of treatment time required for reaching such effect is examined. From the raw data of the trial, the mean (standard deviation) number of treatment time is found indifference between acupressure 3.5(2.1), and physical therapy 3.7(2.2) (p=0.6621). The median and maximum number of treatment time is 3 and 6 respectively. Thus, the related cost-effectiveness ratios calculated based on cost for one treatment time should be justifiable.

Table 1 also discloses the incremental cost effectiveness ratio (ICR) which represents the additional unit of net effectiveness to be gained in corresponding to spending an additional unit of cost, one NT$ in our case. Physical therapy was dominated by acupressure in terms of all the four measurements of pain scores (ICR=5), functional status (ICR=10), disability (ICR=20), and pain descriptors (ICR=40).

**Cost Benefit Analysis**

The WTP values reported in another accompanying study in this issue (Hsieh et al., 2019) are used as benefit in the analysis. Due to that cost estimates are on a one treatment basis, the average number of treatment time is surveyed to generate the total costs for reaching such pain reduction stated in hypothetical scenarios for reducing pain by 25%, 50%, 75% or 100%. After analysis, the cost benefit ratios in each pain reduction by either open-ended bidding game or binary questions are all favorable to acupressure as shown in Table 2. The overall relative cost-benefit ratio is 5.9, representing that acupressure is nearly six times cost – beneficial than physical therapy.

**Discussion**

This study reveals that, in terms of pain intensity, functional status, disability and pain descriptor, acupressure is cost-effective and cost-beneficial than physical therapy in alleviating LBP. Main reasons for favoring acupressure are: better effectiveness, shorter treatment durations and less required fixed investment. No discount rate is considered because the estimates are all on current market rates. Only medical related costs are considered because indirect expenses and social or work-related losses of the patients are of individual-

ized nature.

LBP, although with high prevalence, is not necessary to occur and may be tolerable to people. This study demonstrates that it is possible to establish individuals' value for a reduction of low back pain. People will pay more for a faster and complete relief from their existing or potential low back pain, the more severe the pain the higher the WTP values.

Acupressure is proved hereby to be a relative cost-effective and cost-beneficial method in alleviating LBP. The main explanation is regarded that acupressure not only alleviates the pain but also corrects etiological lesions which cause the pain. Acupressure is carried out according to the human body's physiological meridian and acu-points to cure illnesses and/or alleviate certain pain. The "Reflecting-Pain" held by each acu-point reflecting specific body condition can be used to detect the etiological lesions and to correct them at the same time. Consequently, acupressure is doing better than physical therapy. The other factors are experience, technique and the level of Qi owned by the therapists. Qi is a life energy force to help the body to correct the illness and is crucial for pain relief when acupressure is applied. Therefore, the effectiveness of acupressure may vary by different therapist. When surveying the costs in therapists, the effects and duration of the treatment might be different and should be taken into consideration in the future studies.

In conclusion, acupressure is proved by an economic evaluation to be cost-effective and cost-beneficial than physical therapy in reducing low back pain, in terms of pain scores, functional status, disability, and pain descriptor.

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Table 1 Cost Estimates and Related Effectiveness and Incremental Cost Effectiveness Ratios of Acupressure and Physical therapy

| | Acupressure | | Physical therapy | | Related Ratio |
|---|---|---|---|---|---|
| Costs Comparison NT$ | Per month* | Per case (a) | Per month* | Per case (b) | % (a)/(b) |
| Premises / Equipment | 8,667 | 4 | 45,326 | 20 | 20 |
| Personnel | 370,000 | 164 | 530,063 | 236 | 69 |
| Materials | 32,695 | 15 | 33,735 | 15 | 100 |
| Total costs per case | 411,362 | 183 | 609,124 | 271 | 68 |
| Effectiveness Analysis | | | | | |
| Pain Scores VAS: Pre – Post | | | | | |
| (1) Net Effectiveness | 58.5 - 30.6=27.9 | | 56.8 - 48.0=8.8 | | 3.17 |
| (2) Incremental Cost Effectiveness | 27.9÷183=0.15 | | 8.8÷271=0.03 | | 5 |
| Functional Status RMD: Pre - Post | | | | | |
| (1) Net Effectiveness | 10.9 - 5.4=5.5 | | 10.0 - 9.2=0.8 | | 6.87 |
| (2) Incremental Cost Effectiveness | 5.5÷183=0.03 | | 0.8÷271=0.003 | | 10 |
| Disability ODQ: Pre - Post | | | | | |
| (1) Net Effectiveness | 24.4 - 17.0=7.4 | | 21.1 - 20.6=0.5 | | 14.8 |
| (2) Incremental Cost Effectiveness | 7.4÷183=0.04 | | 0.5÷271=0.002 | | 20 |
| Pain Descriptors SF-MPQ: Pre - Post | | | | | |
| (1) Net Effectiveness | 9.3 - 2.3=7.0 | | 7.7 - 5.1=2.6 | | 2.69 |
| (2) Incremental Cost Effectiveness | 7.0÷183=0.04 | | 2. 6÷271=0.01 | | 40 |

*number of cases per month: 2,250

Table 2 Cost Benefit Ratio for Acupressure and Physical Therapy by Technique and by Pain Reduction

| NT$ | Open-ended Bidding Game | | | | Binary Questions | | | |
|---|---|---|---|---|---|---|---|---|
| Pain Reductions % | 25% | 50% | 75% | 100% | 25% | 50% | 75% | 100% |
| Estimate costs of Acupressure (a) | 549 | 1,098 | 1,647 | 3,294 | 549 | 1,098 | 1,647 | 3,294 |
| Estimate costs of Physical therapy (b) | 3,252 | 6,504 | 9,756 | 19,512 | 3,252 | 6,504 | 9,756 | 19,512 |
| Mean WTP by All Respondents (e) | 3,563 | 7,996 | 11,382 | 17,427 | 2,439 | 2,934 | 5,830 | 5,960 |
| CBR-acupressure All (e) / (a) | 6.49 | 7.28 | 6.91 | 5.29 | 4.44 | 2.67 | 3.54 | 1.82 |
| CBR-physical therapy All (e) / (b) | 1.10 | 1.23 | 1.17 | 0.89 | 0.75 | 0.45 | 0.60 | 0.31 |
| Mean WTP by Respondents with LBP Experience (f) | 3,764 | 10,866 | 11,962 | 16,167 | 2,594 | 2,826 | 6,571 | 6,474 |
| CBR-acupressure All (f) / (a) | 6.86 | 9.90 | 7.26 | 4.91 | 4.72 | 2.57 | 3.99 | 1.96 |
| CBR-physical therapy All (f) / (b) | 1.16 | 1.67 | 1.23 | 0.83 | 0.80 | 0.43 | 0.67 | 0.33 |
| Mean WTP by Respondents without LBP Experience (g) | 3,020 | 1,566 | 9,923 | 22,625 | 2,203 | 3,267 | 2,619 | 4,101 |
| CBR-acupressure All (g) / (a) | 5.50 | 1.43 | 6.02 | 6.87 | 4.01 | 2.98 | 1.59 | 1.24 |
| CBR-physical therapy All (g) / (b) | 0.93 | 0.24 | 1.02 | 1.16 | 0.68 | 0.50 | 0.27 | 0.21 |

CBR: Cost Benefit Ratio

# MRI Proves the Effects of Acupressure on Low Back Pain

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## Abstract:

Low back pain is usually self-limited, but tends to be recurrent and become chronic. The common treatment is with pain medication, physical therapy or evidence based complementary and alternative medicine. Lumbar surgery is indicated only when conservative treatment is not effective or when the patient develops functional limited neurologic symptoms.

Acupressure is a proved effective treatment modality by well-conduced quality clinical trial studies, yet, stronger evidence such as magnetic resonance imaging (MRI) proving the body healings will help the explanation. We present herewith a case that a 35-year-old woman with chronic low back pain and acute exacerbation caused by disc herniation recovered after treatment by acupressure with proofs from MRI.

The physiological and healing mechanism of acupressure is still scientifically unclear. We try to further explore along with evidences obtained when we apply acupressure to patients with different conditions.

**Keywords:** low back pain, acupressure, magnetic resonance imaging (MRI)

## 摘要

下背痛通常是自限性的，但往往會復發並變成慢性。常見的治療方法有止痛藥物治療，物理療法或替代另類療法。僅僅當保守治療無效或患者出現功能受限的神經系統症狀時才進行腰椎手術。穴壓療法(acupressure)是經過臨床實證醫學研究證明其為有效且安全的治療方式，然而，若有核磁共振影像（MRI）強力的證據，將有助於證明其身體康復的結果。我們提出一例，一名 35 歲的女性，患有慢性下背痛，由腰部椎間盤突出引發急性加重症狀，因無法接受腰椎手術，經穴壓療法後康復，並有 MRI 證據的佐證。

穴壓療法的生理和癒合機制在科學上仍待研究。我們將繼續對不同情況的患者進行探索，以獲得的證據。

關鍵字：下背痛、穴壓療法、核磁共振影像

Low back pain, derived from musculoskeletal disorders in the lumbar segment of the spine, is usually self limited in two to three months from its onset. However, in most cases, it tends to be recurrent and become chronic in nature. Exacerbation of chronic low back pain may occur by new episodes of physical events, such as accidents, or degeneration of disc or disc herniation. For most of patients, low back pain is treated with non-surgical conventional treatment -- pain medication, physical therapy or evidence based complementary and alternative medicine. Lumbar surgery is indicated only when conservative treatment is not effective in reducing pain or when the patient develops functional limited neurologic symptoms: leg weakness, incontinence in urination or defecation which can be seen with severe lumbar disc herniation.

Acupressure, a family member of acupuncture, is one of treatment modality of traditional Chinese medicine in relieving pain, illness, and injuries in Oriental area. 1, 2 In relieving chronic pain on low back, acupressure has been proved effective by two randomized controlled trials: Hsieh et al, 2004 in Preventive Medicine, and Hsieh et al, 2006 in British Medical Journal. 3, 4 Outcome measures are patients self-reported reductions in scores by pain character in the former trial; and pain scores and disability assessments in the latter. Though well-conduced quality study they are, both trials are questioned for psychological effects and the belief in results. Thus, stronger evidence such as magnetic resonance imaging (MRI) proving the body healings will help the explanation. We present herewith a case that a patient with chronic low back pain and acute exacerbation caused by disc herniation recovered after treatment by acupressure with proofs from MRI.

**Case report**

A 35-year-old woman, who works in a private firm and with off and on chronic low back pain history, complained sudden onset low back and left leg severe weak and pain and functional disability in walking, getting up from and laying down on the bed in early September 2006. The patient was hospitalized. No system disease had been reported. Pharmaceutical medications did little improvement on the pain which made the patient entirely unable to fall asleep. Lumbar spine nerve root compression was diagnosed by a neurological surgeon. MRI on 20060906 demonstrated “mixed sub and retro-ligamental ruptured left posterolateral L5-S1 herniated disc severely compressing S1 traversing nerve root.” (Figure A-1 and Figure A-2). Surgical treatment was indicated and suggested to the patient. As a key financial supporter of her aged parents the lady could not afford a long leave without pay from her job. In addition, the concern of possible job loss if the operation failed the lady was forced to suspend the surgery and to seek alternative medicine instead. She was then referred to an acupressure specialist by an internal medical doctor who understood and learnt acupressure well.

**Acupressure treatment records are as below:**

20060911：First acupressure treatment
20060913：Acupressure treatment
20060921：Acupressure treatment
Sleeping quality and pain improved along with the treatments
20060925：Acupressure treatment
20060929：Acupressure treatment
Common cold noted. Proper medication was given
20061003：Acupressure treatment
20061007：Acupressure treatment
**The patient was back to work** although some pain still noted with mild functional disability
20061012：Acupressure treatment
20061017：Acupressure treatment
Continuing reduction in both pain and functional disability along the treatment
20061024：Acupressure treatment
20061104：Acupressure treatment
20061107：Acupressure treatment
20061118：Acupressure treatment
The patient was satisfied with the recovery and ceased the treatment
20070213：One session of Acupressure treatment taken for sore sensation noted in her lumbar area.
20070504：The follow-up MRI reported "**1.posterior central L5-S1 herniated disc potentially compromising left S1 traversing nerve root; 2. T12-L1 short-segmental OPLL; 3. T12, L1 and L5, S1 degenerative disc disease.**" (Figure B-1 and Figure B-2).
200709xx：One-year-after follow-up.
The patient has not had any recurrence or new episode of low back pain in the past one year. The patient reported occasional sore sensation and mild pain occurred on her low back after long sitting.

**Discussion**

Instead of subjective measurement on reductions of pain and disability scores, MRI's of this case provide better evidence to the healing effects of acupressure. Under our national health insurance system, MRI is allowed to be taken only for an emergent case that surgery may be indicated. For chronic low back pain, with which we dealt in the randomized controlled clinical trials, we used patient's self-assessed pain and disability questionnaires rather MRI due to costs consideration. In this case, nerve root compression with ligament rupture is a medical emergency. In current con-

ventional medication, patients usually accept and undertake surgery immediately to prevent long-term disability due to possible irreversible spinal cord injury. However, this patient abandoned the surgery suggestion and sought alternative medicine because of her personal reasons is rare. Although this is one of our valuable cases that we are able to obtain the image evidence we intend not to encourage patients to risk and to receive acupressure before proper assessment for a surgery in conducted. Yet, if patients are not eligible for a surgery acupressure may help.

Acupressure comprises gentle but firm pressure applied manually over acu-points and meridian. Acu-points are the doorways leading in and out of our body and act as monitoring points for the functioning of human organs. Stimulation on acu-points is to activate human body's automatic repair system and to expedite the healing process. One of the important components of acupressure is energy force (Qi) owned by acupressure practitioners. Only with strong enough Qi the acu-points can be stimulated and body automatic repair system be activated; and the Qi be sufficient for transferring through acu-points to patients to help their healing process.

There are "four-step treatment process" techniques in our acupressure: first, using trigger points to generate the "acu-points reflecting pain" to locate the etiological causes of the illness and then to determine the best pressing technique to treat the illness; second, using acupressure to treat damaged tissue and to activate the repair system; third, to dredge both Qi and blood flows for improving holistic body function; 5 and fourth, to convey Qi to help patients to expedite the healing process. There are trigger points for each part of the human body to locate the etiological causes of the illness. Only when the etiological cause is found and removed the body can be recovered. The finding of etiological causes by trigger points is essential toward a successful treatment. The successful searching of etiological cause by trigger points, in turn, depends upon level of Qi and experience owned by the acupressure practitioners. Thus, the effects of acupressure vary by practitioner.

In low back pain, eight main trigger points are used to identify the etiological causes of the pain. In this case, the patient has suffered chronic low back pain for years; the etiological causes are not singular. We believe the recovery of ruptured ligament and the relief of nerve root compression are, at least partially, resulted from general improvement in the over all low back area.

The physiological and healing mechanism of acupressure is still scientifically unclear. We try hard to disclose the techniques of how acupressure works. Further explorations are continuing along with evidences obtained when we apply acupressure to patients with different conditions.

Figure A-1


Figure A-2


Mixed sub and retro-ligamental ruptured left posterolateral L5-S1 herniated disc severely compressing S1 traversing nerve root.

Figure B-1


Figure B-2


1. posterior central L5-S1 herniated disc potentially compromising left S1 traversing nerve root;
2. T12-L1 short-segmental OPLL; 3. T12, L1 and L5, S1 degenerative disc disease.

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# 「緩瀉劑」與「止瀉劑」對治療便秘及腹瀉的風險

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**摘要**

便秘及腹瀉是現代人常見的腸道症狀，除了進行飲食調整及生活作息改變外，一般會使用藥物，如「緩瀉劑」、「止瀉劑」來治療。然而，這兩類藥劑除了緩解身體的不適，還對身體帶來負面的作用，這是一般服藥者不易察覺，但卻值得注意。因此，確認真正導致便秘或腹瀉的原因，對症尋方才是改善便秘與腹瀉最好的方法。

**關鍵字：**緩瀉劑、止瀉劑、便秘、腹瀉

**Abstract**

Constipation and diarrhea are common intestinal symptoms in modern people. In addition to dietary adjustments and changes in daily life, drugs such as "laxatives" and "antidiarrheals" are generally used for treatment. However, in addition to alleviating physical discomfort, these two types of medicines also bring negative effects on the body. This is not easy for ordinary drug users to notice, but it is worth noting. Therefore, confirming the real cause of constipation or diarrhea, finding the right solution is the best way to improve constipation and diarrhea.

**Keywords:** laxatives, antidiarrheals, constipation, diarrhea

現代人因為工作忙碌、生活壓力大、缺乏運動，飲食不正常，使得便祕或腹瀉很容易找上門。便秘是因為腸蠕動太慢或是缺乏水分，使得糞球太硬造成腸道阻塞排便困難；腹瀉則是飲食不正常、食物不潔或中毒而引起。醫師除了建議用飲食調整及生活作息改變來治療外，一般會使用藥物，如「緩瀉劑」、「止瀉劑」來治療。

首先介紹「緩瀉劑」的種類及服用時需要注意的事項。可以用作為「緩瀉劑」功能的有膳食纖維、纖維補充劑和散裝瀉藥（膨脹型緩瀉劑）、刺激性瀉藥、礦物油（潤滑劑）、甘油（滲透壓緩瀉劑）或秘可舒栓劑（刺激性緩瀉劑）等，多以軟化糞便，增加腸道內的水分，或促進腸道蠕動為主要的作用，但多半會影響腎功能，有的甚至會併發低血壓、高磷血症、低血鉀、高血鉀、代謝性酸中毒、嚴重低鈣血症等，使用時真的需要十分謹慎。

「緩瀉劑」一般約有五種，茲分述如下：

1. 膳食纖維、纖維補充劑和散裝瀉藥：需以少量之水服用後，再大量補充水分，藉著纖維吸水膨脹的作用，促進腸道蠕動，軟化糞便。
2. 表面活性劑：是一種降低糞便表面張力，使水分更容易進入糞便的藥劑，其作用在於所含表面活性劑的功能，若其副作用最小的一種，也是其效果最不顯著的一種，所以效果不如其他藥劑，而且不適合腎功能不良的患者。
3. 不易吸收的糖（聚乙二醇、乳果糖、山梨糖醇）及鹽（鎂乳、檸檬酸鎂、硫酸鎂）滲透劑：這類可以增加腸道水分，促進排便，但過量使用易影響電解質平衡，增加體液容量，對心和腎功能不良的病人具有不良影響。
4. 刺激性瀉藥（秘可舒 Bisacodyl、番瀉葉苷 Sennoside A、B）：是一種增加腸道蠕動的藥劑，其中秘可舒會刺激胃，因此需整顆吞服。長期使用這類藥劑對於低鉀血症、蛋白質流失性腸道疾病和鹽超負荷等症狀有關。
5. 礦物油、甘油或秘可舒栓劑、水溶性造影劑灌腸（Gastrografin 或 Hypaque）：是嚴重便秘時使用的，但可能發生低血壓、高磷血症、低血鉀、高血鉀、代謝性酸中毒、嚴重低鈣血症、腎功能衰竭和心電圖改變，儘量避免給腎功能不良及老人們使用。（衛生福利部食品藥物管理署，2018）

由此可知，「緩瀉劑」或多或少對身體都有不良的影響，端看其副作用的嚴重性。事實上，在日常飲食中的天然穀物、麥麩、柑橘類、豆類，都有助於腸道的蠕動，只是每個人對於不同的食物會有不同的喜好和反應。有些人只要吃地瓜，排便就一定會通暢，芭樂、木瓜效果次之；但也有人的作法是：在晨間喝一杯牛奶或優酪乳；作者個人的經驗則是練氣放鬆身心最有效，其最主要的原因在於放鬆，利用下腹部深度呼吸，自然增加腸道蠕動，刺激排便順暢。（謝麗貞，2015）

其次，我們來談一談和「緩瀉劑」相反作用的「止瀉劑」。「止瀉劑」一般分為三種：

1. 腸道蠕動抑制劑：抑制腸道的蠕動，不建議使用在腎功能不良的患者身上；
2. 吸附劑及收斂性止瀉劑：具吸附及收斂的作用，不建議使用在因中毒造成腹瀉的患者；
3. 黏膜保護劑：保護腸道內膜，但會影響其他藥品及食物的吸收。

其實大部份的腹瀉多因食用受污染或不新鮮的食物所致，冒然使用「止瀉劑」反而是將有毒的物質滯留在腸道內，讓身體受到更大的傷害，所以最好儘快排出。在腹瀉初期，建議讓身體迅速排出有毒物質，不要飲食至少禁食兩餐以上，這樣毒素才能排空。當腹瀉過度、水分大量流失時，連帶其中電解質的鈉、鉀也流失，影響腸道的再吸收功能，會加劇身體脫水，使體能再變弱。此時，可以飲不含米粒的米湯加少許不含油質的醬花瓜汁當水盡量喝；一來，米湯可補充水分，其所含的澱粉可使腸道得到碳水化合物能量的補充；二來，因醬花瓜汁中含各種純淨的電解質，可提供鈉、鉀

的來源,使體內電解質濃度恢復平衡，如此有助腹瀉加速停止，身體腸道功能快速恢復正常。(謝麗貞，2020)

另外，腹瀉也會發生在腸道極度癱瘓之時，由於腸道無法蠕動，任由水分夾雜糞便多次排出而誤以為是腹瀉。此時要謹慎辨別診斷，若誤用「止瀉劑」必使病情變化而加重。再者，腹瀉也常常發生在身心緊張焦慮的期間，產生所謂的「腸胃反射」,吃飯後馬上上廁所腹瀉，這是心理情緒的壓力所造成，必須去除原因才能恢復，若持續使用「止瀉劑」不但無效，會使胃腸道產生病變。

綜上，不論是「緩瀉劑」還是「止瀉劑」對身體都會有不良的影響，能找出對自己最有幫助的生活方式，小心飲食、適當運動、調節身心工作壓力，方能擺脫便秘，才是保持健康的最佳良策。

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# 練氣與肢體酸的排除

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年輕時獨喜歡爬高山、攀岩等高消耗體能的活動，享受過程中所帶來的專注與寧靜，以及下山後的神清氣爽。登山時常碰撞受傷，卻以肢體的酸為最多，且恢復耗時長久，但看到許多上年紀的山友們，都仍健步如飛身強體健，以為仍執著不時登山即能增強體魄。在 40 多歲後，忽然覺得自己愈來愈無法負荷三天兩夜的登山行程，背部及肩頸的肌肉僵硬酸痛，對生活作息產生了相當的影響。於是開始思索，為何有人到老仍能攀登百嶽，有的人則病痛纏身，我卻腰背酸痛不止，類似的現象也出現在其他運動的人。也就是說相同的運動，有的人能改善身體的狀況，有的人不但沒有得到改善，反而造成肌肉僵硬酸痛，進而發生各種意外傷害。那麼，為什麼人會有「酸」的感覺？「酸」又是如何而來？人正常活動肢體並不會「酸」，只有肌肉過度使用時才會產生僵硬酸痛的感覺。這是不是就是相對於「有氧運動」的「無氧運動」所產生在肌肉中的乳酸堆積，造成「酸」的原因？

人是自動產生能量的機體，其使用葡萄糖、氧和水在細胞核內粒線體雙層膜上的檸檬酸循環中，生成三磷酸腺苷（ATP，adenosine triphosphate）為細胞內能量傳遞的媒介，儲存和傳遞化學能。若氧不足時，骨骼肌糖原或葡萄糖可在無氧條件下酵解，生成乳酸以釋放出能量供肌肉運動時使用，此糖酵解供能系統又稱乳酸能系統（glycolysis，將葡萄糖轉化成丙酮酸等許多步驟釋出能量，最後轉化成乳酸），其最終產物乳酸則堆積在肌肉中。所以進行劇烈運動的過程中，人體需要大量能量，肌肉內原儲存的 ATP 僅能維持約 1～3 秒運動所用，之後的能量供應就要依靠 ATP 的再生。而 ATP 依靠糖酵解所釋放的能量，約能維持 2～3 分鐘的時間，這時人體內乳酸的生產比組織移走乳酸的速度為高，組織內的乳酸濃度迅速提高，所以肌肉在劇烈運動最後階段會有灼燒感，也就是為何劇烈運動後肌肉會產生酸的原因。

使用 ATP 能量持續運動而不產生酸，是採用有氧供能系統的檸檬酸循環，此時 1 個分子的葡萄糖可以產生 38 個分子的 ATP；當 ATP 能量不足使用時，身體即進入無氧糖酵解供能系統，其僅能淨生 2 個分子的 ATP 且產生乳酸的堆積。所以**當從事較低強度的運動時，ATP 的消耗速度較慢，我們的身體只要能充分地供給氧，就會有充裕的時間進行 ATP 的再合成，能長時間持續地供應身體運動所需 ATP 的能量，而沒有酸堆積在肌肉中。**因此，一般生理條件下，皆希望組織細胞能從有氧供能系統獲得能量，此不但釋能效率高，而且逐步釋能逐步儲存於 ATP 分子中，能量的利用率高，少有酸的堆積。由此可知，人體會有「酸」的感覺是因為持續耗能運動時，

無法即時產生足量的 ATP，只好經無氧糖酵解供能系統緊急提供所需的能量，同時也就產生了乳酸的堆積。所以避免酸的堆積，**運動時人體血液中的含氧量是主要的關鍵**，此亦即坊間會強調「有氧運動」的原因。

但是每個人血液中的含氧量係取決於體質天賦條件，透過運動所能產生的能量 ATP 亦不相同，因此即使從事相同的運動和運動時間，所產生的效果亦不相同。當人體含氧量不足，即使從事坊間所稱的「有氧運動」，如慢跑、瑜珈、快走等等，也不一定有強健身體的效果。這也就是為何運動對有的人有效，但對其他人無效，並非有一定的標準。如何才能增加人體血液中的含氧量? 唯有練氣！何謂練氣？就是**長期持續有規律的身體運動，即使只是局部的身體部位，其目的在於養成特殊技術、技擊武術、保健強身、防病養生，或是肢體運動者，其練習的技巧需要和呼吸、吐納、導引的功法相配合者，即是為『練氣』**」(謝麗貞，2015) 。

規律的動作配合呼吸，久而久之在體內就能產生「氣」。當氣愈足血液中的含氧量愈高，有氧供能系統所能產生的能量 ATP 效率越高，乳酸堆積在體內則越少，肌肉自然不會有酸痛的感覺。由於年輕時氣血循環尚佳，可以排除已堆積的乳酸，但隨著年紀增長，氣血循環逐漸遲緩堵塞，酸痛的情形就愈來愈明顯，以致於影響到日常生活作息。所以**當乳酸陳積數十年，想要透過物理治療或藥物來排除，僅能達到舒緩效果而無法根治；徹底的辦法是透過練氣使血液中的含氧量增加，才能逐漸將陳積的乳酸代謝出來。**

作者自青年時期自行練習靜坐，因個性緊繃，無法放鬆，將氣吸入胃中而不自知，還自以為是氣達丹田，當時對年輕人身體的影響並未顯現，又因當兵時不慎受傷撞成長短腳，以立正姿勢站立時會，身體會自動往右前方轉 45 度。進入職場後，又瘋狂地愛上重裝登百嶽。身體重心不平衡，再加上負重及不正確的呼吸方式，造成胃食道逆流、肺功能退化、全身肌肉僵硬、尤其是肩頸背部脊椎兩側的夾脊肌，如同牛筋一樣僵硬，腰背酸痛持續十數載。後又幾經急慢性疾病的波折，終究演變成長期失眠，身心瀕臨崩潰，竟連吃飯消化都覺得須耗用大量體力才能完成。為徹底改善身體狀況，遂跟隨謝醫師學習練氣，堅持不懈採用正確的練氣方法(謝麗貞，2015)。當時身體雖然虛弱，但呼吸竟不再止於胃，逐漸回到丹田的位置，也開啟了另外一個能夠恢復健康的契機。

練氣開始時，氣感始終停留在手腕，無法運行於全身氣脈中，這才發現掌握了正確的練氣方式，但肌肉仍舊存在僵硬酸痛，氣就無法運行自如。但幸好能感覺到全身的肌肉逐漸開始放鬆，雖然速度不快，但放鬆的感覺是由內而外，而且每次放鬆的部位並不相同，有時是從骨盆兩側，有時從脊椎兩側，當到練到有僵硬酸痛的部位時，就會感覺肌肉在拉動，有啪啪的聲響，身體也會自然地去順勢伸展，這可能就是陳積乳酸在逐漸代謝排除所致。練氣過程中，最嚴重的就是肩頸背部的僵硬酸痛，治了又酸，酸了又治，這是因為肩頸部位是由無數肌肉群所構成，需要一條一條地去排除乳酸的堆積，並全恢復各肌肉群的活

性。每次排除乳酸放鬆一部分後，隱藏在更深層肌肉群的酸又會被誘發出來，如此逐一改善漸有效果，唯因年紀較大，恢復力較慢，但在瞭解自我身體修復的機制後，也更能有耐心、不急燥、持續練氣，最終一定能恢復健康。

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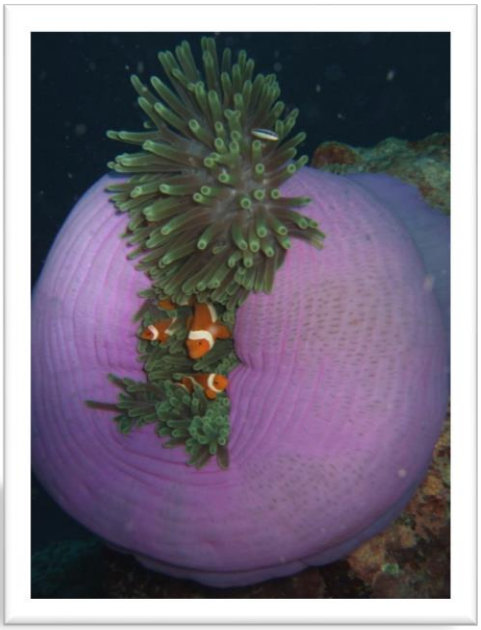

受海葵保護，睡覺中的小丑魚　　—資深海底攝影師 Jenny Lin 提供

# 孕中期令人擔憂的宮縮

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度過了孕前期的胃脹不適與疲憊，一轉眼孕期來到 20 週，是整個孕程最舒適的孕中期，身輕如燕，活動力漸佳，於是花了一天在家整理久違的櫥櫃。也許是高估了自己的體力，隔天雖在精神欠佳的情況下，還陪孩子們出門走走，返家後宮縮頻率增加，突然一細小水注從下體流出，發現是帶有粉紅色的水狀液體,心裡有點不安，就診詢問醫師說恐怕是高位破水，由於流出液體少無法精確驗出是否為羊水，但求安穩必須先多臥床安胎，若宮縮頻繁可依情形服用安胎藥安寶（Ritodrine）[3]避免大破水的風險。

自這天起，我的宮縮就一直處於高度頻繁狀態，肚裡的寶寶也時時動個不停（在此之前寶寶也是三不五時會手舞足蹈一番）。於是我大多時候臥床，但只要起身走動或久站，便會宮縮加劇腰酸增加，只能靠藥物減緩症狀，大約是四小時一顆安寶，這樣的劑量才能讓子宮平息些。

好不容易挨到週末求診於謝醫師，她先觸診評估腹部狀況，發現胎兒有快速類似顫抖的狀況，並有一股電流向外釋放至謝醫師的手掌中，直上傳到她的前臂。謝醫師將這股能量引導出來後，我的胎動稍有減緩，但宮縮及腰酸的狀況仍存在。接著，在後腰部酸脹之處給以穴壓治療並拔罐，以解除肌肉的張力，隨之腰酸情形就大幅改善，不再有宮縮和腰部酸脹的感覺。平躺了一會兒後，我起身走走，但宮縮仍在，下腹依舊硬梆梆鬆不下來。謝醫師推測可能是安胎藥的副作用以及子宮擴張程度不夠胎兒活動的空間，因此穴壓治療放鬆了層層肚皮的肌肉與筋膜，讓胎兒伸展的空間變大後應該會好些。謝醫師要我回家再觀察，若狀況好些可盡量減少藥量。

隔天，宮縮狀況趨緩很多，腰也不酸了，我開始減少藥量，只在宮縮還緩不了時才服藥。第二天，身體狀況更好了，覺得已恢復有七成，因此大膽將藥全停，想看看是否宮縮已自然緩解，整天下來果真不需要依賴藥物，內心大大鬆了一口氣。而後的每一天，無論是站、臥、坐，胎兒都平靜許多，子宮也不再頻繁收縮，幾近完全恢復。

在穴壓治療的理論裡，謝醫師推論造成我子宮收縮頻繁的可能原因有二：

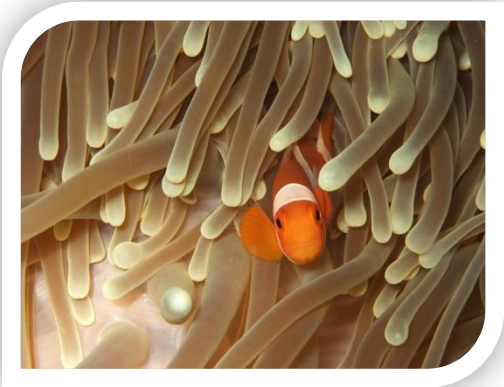
（一）胎兒心臟及心主別脈放電頻率

[3] 安寶（Ritodrine）是一種口服、肌肉及靜脈注射均有效的子宮鬆弛劑 (uterine relaxant)，它可抑制子宮收縮的頻率與強度。1.藥理作用：能活化子宮平滑肌的 β2 接受體位置，因而減低子宮收縮反應。較大劑量下，也影響 β1 接受體，引起心跳過速和血壓下降。2.副作用：（尤其是靜脈滴注）改變母體與胎兒的心跳速度及血壓，暫時提昇血糖及胰島素，低血鉀，心悸，噁心，嘔吐，震顫，皮疹。當劑量減少或停止輸注後很快會恢復正常。

的問題，與服用 Ritodrine 增加心收縮力和心跳速率有關，導致胎兒產生不平衡的能量需要釋放。

（二）母體過度疲累，氣血不足，導致子宮外層層肌肉與筋膜的協調不良，無法提供合適彈性與空間以利胎兒成長的需要。

因此在胎兒體內不平衡而有類似震顫擾動需釋放能量時，又沒有足夠空間可伸展，反刺激子宮收縮頻率增加，投藥後更造成惡性循環。



清晨還沒睡醒的小丑魚與共生的海葵

—資深海底攝影師 Jenny Lin 提供

# 穴壓對臨床常見月經症狀的治療

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## 一、常見臨床月經症狀

每個月來一次的月經是女性人生中的大事，不僅因為月經來臨之前女性可能會經歷荷爾蒙變化所引起的各種身體或心理的不適，更因為這位被女生暱稱為「好朋友」或「大姨媽」的月經一旦鬧起脾氣——早來、遲到、甚至賭氣不來，都會讓女性吃足苦頭，產生種種腹脹、不順、疼痛等月經相關症狀，干擾女性的日常生活，嚴重時還可能影響身體健康。

茲列舉常見的三種症狀，並擇要說明穴壓治療的原理和方法於後：

### 1. 痛經

有些人的月經雖然準時報到，但報到過程卻讓人非常不適，她們可能經痛到臉色發白、全身冒冷汗，嚴重的甚至痛到在地上打滾、昏厥；也可能因經痛而夜不成眠，影響生活作息。「經痛不是病，痛起來卻要人命」，有經痛的女性不在少數，於是經痛成為這些女性朋友每個月必經的夢魘。

痛經通常和經血不暢順有關。經期子宮組織是鬆軟不結實的，內膜剝落時，下腹部腫起而且容易拉肚子，腸道也容易脹氣，這是導致腹脹、痛經的原因之一，若再加上女性本身子宮功能不佳、經血蘊積，往往經期還沒開始就脹痛不已了。

雖然子宮不是臟腑，但子宮前面的膀胱和子宮後面的直腸屬於臟腑，因此腫脹壓迫到旁邊的「腑」時，「腑」的病症會上下流竄，致使多個「腑」受到影響，所以痛經有時會伴隨嚴重頭痛，全身冒汗，呼吸困難，腹部不適，失眠等等。

但也有部分女性看起來是痛經的症狀，實際上卻是其他原因造成的疼痛。例如腹直肌、腰背肌受傷，也會導致月經來潮時，因肌肉承受牽扯壓力形成假痛經的現象，必須經由有經驗的醫師確診判定，然後給予適當的治療。

### 2. 經血量與月經週期

經血過多或過少，通常跟體質、體力有很大的關係。若身體血液量不足，週期過短，或經血流出太多，都容易損耗體力，甚至產生嚴重貧血。一時間經血流量過多也容易造成頭暈，無力，臉色發白的急性貧血現象。但經血流量過少也不需要高興，因為會造成子宮內淤塞，造成下腹部腫脹、氣血的阻塞，因而疼痛不已，所以也不需要高興。而且這可能是生理或心理異常的警訊，若未即時修正，又加上過度節食、子宮發育不良、雌激素分泌異常、或生活壓力過大、情緒不穩定等狀況，就可能造成經血流量過少，甚至直接停經了。

月經週期過短或過長也是常見的失調現象，有些女性甚至還有非經期

出血的狀況，這些也都和身體血液量及體力有關。有的女性雖然月經週期不正常，但若能正常排卵，還是有機會生兒育女。

### 3. 提早停經或延遲停經

即使女性每個月的經期準時報到也沒有失調現象，但還是得接受月經最後一道關卡的考驗——停經，不管提早停經或者延遲停經，都可能影響女性的身體健康，所以不可小覷。

停經時月經周期紊亂,時長時短，血量忽多忽少，都是常見的現象。由於荷爾蒙的分泌產生變化，許多身體不適的症狀因而產生，例如盜汗、潮紅、忽冷忽熱、情緒不穩等，皆統稱「停經症候群」。這些停經症候群多發生在女性 45 至 52 歲之間，因為卵巢功能慢慢退化造成種種不適的現象，但也不是每一個女性都會經歷到，端看其身體狀況而定。

提早停經會缺乏雌性荷爾蒙對身體心臟和骨骼的保護作用，延遲停經則易導致婦女持續失血而致貧血身體虛弱。若女性本身氣血已經不足，停經過程又大量失血或經期延長，凡此皆令女性氣血不足的情形雪上加霜。

## 二、穴壓治療臨床月經症狀的原理和方法

首先，先將以上這些月經臨床病症分成以下幾種，方便說明使用穴壓治療時的原理和方法：

### 1. 疼痛

造成痛經最主要的原因是氣血瘀積在下腹部,因為經血無法順利流出，而致腫脹壓迫到附近的神經而引起不同程度的疼痛。最有效的方法就是將阻塞之處的廢氣和瘀血，以穴壓徒手按壓穴道導引廢氣和瘀血推出，使神經不再受到壓迫，自然去除腫脹解除疼痛。這方面採用氣血引導令出體外的效果相當顯著，通常 1~2 次就可以完全不再有痛經的現象。

### 2. 腹脹

相鄰子宮旁邊的器官有：直腸、膀胱、下腹腔等，當氣血瘀積在下腹部內時，這些器官，甚至於上腹部內的器官，如胃部等，都可以因子宮的腫脹而產生腹脹。治療時，以穴壓徒手按壓穴道，導引瘀積氣血排出，若在穴位上再配合拔罐，則能將廢棄的廢氣和瘀血排出，迅速解除腫脹和不適感和疼痛。

### 3. 不規則

月經的不規則和性腺內分泌有很大的關係，正統醫學多採用激素調整子宮內在環境，來控制月經週期。使用穴壓治療時，則調整穴道，自腦部的性腺分泌系統和相關的內臟器官如：心的血液和肝的生化產生性激素，一併要治療。這是比較費時且是技術性的治病過程，通常要花三到六個月，不必使用干擾性質的雌性激素和黃體素。

### 4. 血量過少或無經血

血量過少或無經血的原因很多，如貧血、血管阻塞、器官病變、身心極度衰弱等等。使用穴壓治療時，則需要一一分辨，一一解決。例如是氣血不足的貧血則要增加體力，治療貧血；如果是子宮內部阻塞則要治療子宮內的環境。只有將身體各種功能調

整好，月經血量才會增加，或無經血的情況才可改善。這時也要分辨是否是提早停經。

### 5. 血量過多

長期經血量過多必然會使人體氣血過度流失，臨床上的表現是嚴重的貧血症狀，常常被忽略是由於經血量過所引起。貧血有許多症狀，如頭暈、無力、疲憊、體力不足、日常活動產生不便，長期之下內臟器官會因缺血而失能，產生許多複雜的現象，不易聯想到是月經的血量造成。經血量過多一般是由於子宮內血管止血機制不良所造成。子宮內血管豐沛，與一般四肢血管止血機制不同，必需特別處理。人身上有三個重要穴道主管經血週期和血量，必需給予調整，再配合專門來控制子宮血管止血功能的中藥，效果顯著，通常三到六個月間就可以調整子宮內血管的出血狀況。重點是首先一定要調整身體，才能恢復健康。

### 6. 經期過長

經期過長會引起女性的情緒造成生活不便利，長期下也會形成人體氣血過度流失，有貧血的症狀。其處理的方式如同上項：血量過多的個案。

### 7. 提早停經

提早停經其原因每個人不同，多半和身體內臟功能有點關係，需要以穴道偵測檢查治療，這也和年齡有相關。

### 8. 停經症候群

在停經前後，月經混亂，週期和經血量都失常，這時要調養身體保持體力，用練氣是最好的方法；否則利用穴壓治療取得能量也是一種很好的選擇。停經症候群指停經後因為缺乏雌性激素而產生的症狀，包括潮紅、盜汗、失眠、焦慮、情緒不穩等。這是卵巢功能下降，可以穴壓方法刺激腎上腺分泌雌性激素，症狀就會消失而恢復健康。

### 9. 其他原因引起的月經疼痛

由於子宮外圍有許多器官組織，包括輸卵管、卵巢、韌帶、膀胱、直腸，其外更有許多腹部和腿部的肌肉、肌腱群等，若這些組織器官有病變傷害時，平時不顯著，待月經來潮氣血不足、體力下降時，就會出現不同程度的疼痛，而被誤以為痛經，這時只能用穴道偵測來找出病灶，再追根究源小心一一排除，才能解決。

穴壓治療對此臨床月經症狀的研究和療效非常好，一般都可以完全治癒，不會再復發，也不必服用有副作用的激素。

# 我所知道的減肥

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## 一、前言

嚴格說來，其實我真的不胖，年近知命，BMI 23，依據衛福部的公告BMI 24(註 1) 以上稱作「過重」，世界衛生組織定義 BMI 27 以上才叫做「輕度肥胖」(註 2)，那麼減重與我何干？但我確實進行過減重——為了讓自己的曲線更窈窕，但結果是勞民傷財，成效有限。

民國 106 年因為好友的介紹認識謝醫師，上了謝醫師的初級氣功班，並接受謝醫師近二年的治療，於是我的體態有了外人明顯可見的變化，這是我始料未及的，因為學氣功、接受治療的初衷都不是為了減肥。

## 二、我的減肥經驗

我也曾減過肥，雖然我並不肥，當媽咪前後體重差異也不算大—3~5公斤而已，BMI 最重時為 23.1，但我仍想減肥。不是因為肥胖想減重，而是年輕時迷信「越瘦越美麗」、「瘦子的異性緣較好」、「窈窕讓人更有自信」，所以我希望自己能更清瘦些。以我狀況而言，瘦個一兩公斤不難，少吃兩餐就達標了，只是我想更瘦，想要瘦他個三五公斤，而且我希望小腹更平坦，腰圍更纖細，於是我開始嘗試不同的減肥法來幫助自己達成心願。

我吃過藤黃果類的健康食品，聽說它可以阻止碳水化合物轉化為脂肪，還能夠促進脂肪燃燒，排除體內多餘的脂肪，所以買了一些沖泡物餐前喝下，讓自己能毫無負擔地大快朵頤。

民國 88 年前後，我報名 X 姿集團的各種課程，買他們獨家研發的纖體茶，每次上完課，氣喘吁吁的我，剛好在那兒休息片刻，聽著舒緩的音樂，放鬆身心，順便喝個提升代謝的熱熱茶飲，想像自己纖體輕盈後的俏模樣，心情立刻飛揚起來。年輕時勇於嘗試，道聽塗說地跑去減肥診所掛號看診，然後吃了幾包減肥藥，服藥讓我有口乾、心跳加快之感，醫生說這是正常反應，但我實在難受，不敢再吃。當時覺得自己浪費錢，如今倒是慶幸沒把它吃完，因為誰也不知道繼續吃下去會不會出問題？

生完小孩，腰腹增大一圈，許多褲、裙穿不回去，為了趕快瘦身，我到百貨公司花了上萬元買某牌的塑身衣，穿了一陣子就把它打入冷宮了——穿脫不易，夏天根本穿不住。後來單獨使用他們家的馬甲塑腰腹，但腰腹壓迫之感難受，卸下馬甲「粗腰」還是無法變成「楚腰」，讓我望腰興嘆，最後還是將它束之高閣啦！

最後一次是中醫減肥，我認識一位顏質不錯，閱讀興趣相投的女中醫，我去診所埋線、針灸、喝減肥茶、吃中藥等，風風火火實施了大半年，結果……，你知道的。

## 三、減肥是一種潮流

「文宏今天強烈大陸冷氣團南下，要不要來幾片黑糖薑片泡紅茶熱熱地喝？」一進辦公室，我就吆喝同事一起泡薑片茶，不料這位身材精實，有猛男潛力的男同事竟回我說：「不了！我最近減肥，因為肚子太大，我想讓它小一點！」這位常去健身房的同事，身材算是標準，但對自己腰腹不滿意，基於對身上的肥肉零容忍，除了固定健身外，他也常騎單車或走路上下班來減肥。

改學生作業時，看到一位學生寫道班上秩序比賽全年級第一，導師請大家享用不同口味的爆米花，該組分到好吃度破表的起司口味，幾乎被同學秒殺，但是一位女同學只吃一顆，因為她在減肥，後來覺得爆米花實在太好吃，實在忍不住才「再吃一顆」，這位女同學才七年級，小學是國小游泳校隊，身材適中勻稱，小小年紀竟然想減肥，真令人匪夷所思！

據說美國某個財經資訊網站向讀者進行2019 新年新希望的調查(註3)，結果發現將近一半的讀者計劃在 2019 年實行減肥瘦身計劃。我發現「減肥」已不是肥胖者的專利，有一些人是真的因為肥胖想減重，有些人減肥是為了健康養生，而有些人則是因為對自己身材不滿意。

據我觀察，「減重」在台灣一直是塊商機勃勃的大餅，知名連鎖藥妝店二樓藥品專區還陳列著：「打造魔鬼身材銷售總冠軍」的廣告牌。人們對「肥」的看法，也愈來愈趨向「主觀」認定，只要對自己身材不滿意就想減肥，減到身材很「魔鬼」為止。「瘦」儼然成為社會的主流價值觀，「瘦」才是王道，所以「減肥」符合時代潮流，是一種「潮」的表現。加上各種傳播媒體的推波助瀾，報導女明星時常出現「超V臉」、「小蠻腰」、「鉛筆腿」……這樣的形容詞，無形中洗腦社會大眾這樣纖瘦的女性才叫美，要以這樣的審美角度來評鑑美麗。

## 四、覺察個人減重心態

適當的體重與良好的身材是許多人追尋的目標，特別是女性對美的追求更是不遺餘力，於是成為消費市場的主力，創造許多減肥商機，生活中不少廣告都跟「美與瘦」有關。你一定在電視、報章雜誌、網路或大眾運輸工具上，看到各種滿足這種心理需求的飲品、保健食品、健身器材、瑜珈有氧、健身房，甚至醫療美體等廣告，其代言人往往都是巴掌臉、五官精緻，身形窈窕、衣著合身的女性。這些廣告以瘦為美，以女體的美將廣告訴求加以包裝，強化對觀眾的衝擊力，藉由美的形態引起觀眾注意並說服觀眾，無形中也使消費者產生嚮往、模仿的渴望，希望能像廣告中女性圖像般美好。這通常是廣告商的促銷手段，藉此激起消費者潛意識的欲望，開始追求這種美好，如此一來，有助於增強消費者對廣告的印象，並刺激消費者的商品購買慾(註4)。

隨著社會的變遷，能吃就是福、肥胖象徵福氣的傳統思想早已被顛覆，取而代之的是健康意識抬頭，現代人要求吃得健康，Vegan 純素主義的浪潮興起，養生的生活態度也成了大家所追逐的目標，經由媒體營造出「瘦即美」的價值觀也趁勢而起，潛移默化中，似乎維持體態的纖細與美麗已成為自我展現與提升自信的重要方法，醫美整形也蔚為風尚，卻忽略了健美

的身體必須透過飲食控制與運動才能維持，而透過內在修養與專業能力也是自我實現、展現自信之美的方法之一(註 4)。我也曾是傳媒效應下，潛移默化而心生嚮往的追隨者之一，雖然沒熱到當「跟風飯」(註 5)，但也因好奇嘗試不少減肥法，最後發現減不到三公斤，而且會復胖。

## 五、調整心態，正確減肥

二年前，敝校一群同事瘋減重，某同事報得左營高鐵站附近，有一間很夯的減重診所這張明牌後，一群人便於假日攜老扶幼地從台北搭高鐵南下高雄去減重，短短半年、一年後，人人減下至少 10 公斤的贅肉，整個身形窈窕起來。但是，女同事的嘴邊肉沒了，卻多了兩條可以夾死蒼蠅的法令紋；耳鬢、頰側新增華髮；男同事的鮪魚肚消失，卻露出圓頂的高髮際見人，於是整個人瘦了一圈，也老了十歲，而且半年後平均復胖 5 公斤，為什麼？殊不知皮下脂肪的過度流失會造成肌膚鬆弛，因為被脂肪撐大的皮膚早已失去了彈性，所以當得不到皮下脂肪的支撐時，鬆弛下來的皮膚就會變得褶皺不平，鬆鬆垮垮。加上膠原蛋白的流失，原來膠原蛋白是人體延緩衰老必須補足的營養物質，一個成年人的身體內約有 3 公斤膠原蛋白，它廣泛地存在於人體的皮膚、骨骼、肌肉、軟骨、關節、頭髮組織中，擔任支撐、修復、保護的三重抗衰老作用。減肥中的人由於整體新陳代謝加快(註 6)，膠原蛋白流失的速度也相對加快不少，所以皮膚更加容易老化鬆弛(註 6)。而我找專業的中醫減肥，堅持了半年，也瘦不下三公斤，中間還要忌口，每次約診、候診都很費時，加上我也不是身形真的肥胖，最後也就放棄我的「腰瘦夢」了！

其實人體的胖瘦與個人遺傳的基因、環境和生活習慣等因素有關。遺傳基因是一個很重要的影響因素，但是幾十年來肥胖人口不斷增加，而人類的基因卻不可能在短時間有重大的演進。因此，可以斷定是現代社會環境與生活型態的改變，導致肥胖人口的增加（註 7）。體重的控制不外乎運動、飲食與生活行為改變。但是，現代人求快、求方便和速食懶人的心態，在執行體重控制的過程中很難堅持。

## 六、無心插柳減肥中

我是在學習氣功，養生保健的前提下成為謝醫師氣功班的學員，也是因為這樣的訴求進而成為謝醫師的病人—調理胃疾，沒想到謝醫師竟隨手附贈「拔罐瘦腰腹」。於是我不知不覺地，體重不變，腰圍吋斷，一開始沒有感覺，後來陸續有人問我最近是不是瘦了，我都說「沒有啊！體重沒變啊！」，但我發現，穿不回去的褲、裙，大半能穿回去了，因為「腹部那圈」竟在我生活如常，飲食如故的情況下，無聲無息地消失了，而且肚皮是非常緊緻的，無怪乎謝醫師每次見到我都要虧說：「妳看，我把妳的肚皮修理成這樣！妳要付我多少錢？」

## 七、結語

如果我們把短暫人生的寶貴光陰浪費在想盡辦法與食物、體重對抗，實在很可惜。我們的身體擁有最可靠的調節力。試想：你如何運用你有限的認知，去代替你的身體、決定你所需的營養素？許多極端的減肥法長期來看，不僅無法滿足身體的自然需求，

還會產生一些不適應的狀況，甚至造成疾病，不但達不到你的初衷，還衍生許多問題(註 8)。「不挨餓、不運動，你也能享「瘦」人生，不復胖」，類似的廣告訴求，特別打動人心。符合人愛美，卻又貪懶、貪吃、貪 CP 值的心。因此，市面上琳瑯滿目的減肥藥品、網路上流傳各種瘦身秘訣，來滿足人貪懶享瘦的心態。其中可能部分產品或秘方具有除脂減重的效果，對身體也沒有明顯的副作用，但是停止藥物或秘方，能有效維持體重嗎？更遑論從不間斷某某減肥藥品造成身體危害副作用的減肥花錢又傷身的報導了。所以減肥一定要心態正確，而且要找對專家、用對方法！

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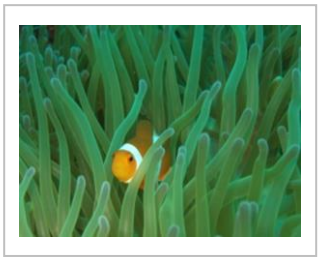

# E 諮詢

## Q 1. 穴壓治療可以治癒許多病症，請問其最根本的機制是什麼？

**A** 穴壓是利用治療者練得的「氣能」，以指力點、按、壓穴道，去偵測身體內實際異常的生理狀況，去啓動人體的自動修護、調節及生長的機制，同時藉傳輸氣能強力介入以舒解症狀和治療疾病。其過程即：依病人的主訴，用穴道偵測和氣場感應瞭解其身體實際狀況，判斷病因及決定並進行治療的方式。

人體內的細胞組織是持續進行分解與再生的作用，不斷汰舊更新與成長，而這也是體內自動化的機制。這些自動機制需要有足夠的「氣能」才能維持，而會停滯生病的原因則多為：1 先前的損傷；2 本身能量的不足，以及 3 歲月的折損，透過穴壓及能量的傳輸，可提供能量去啟動再生的修補、調節及生長的機制。

過去身體的疾病、傷害、毒素的累積，單單採取藥物緩解症狀，多未能去除病因，不能根治可以再復發，而所服用的藥物又累積於體內，造成更多的問題。穴壓治療卻可找出並去除原始的傷害原因、排除體內累積的代謝毒素，有效啟動人體自動修復系統，徹底根本治療，這就是穴壓治療可以治癒許多病症的機制。

## Q 2. 什麼是呼吸困難的鑑別診斷？

**A** 呼吸困難最常呈現的症狀是喘氣、吸不到空氣、胸悶，嚴重者連帶有恐慌，胸痛、心悸或心律不整的現象，服藥後可以緩和症狀，但會再復發，時好時壞，狀況斷斷續續的，更甚者有嚴重的藥物副作用。肺主管呼吸和心臟相配合提供身體血氧能量，因此肺、心兩臟功能常常連帶發生症狀，在鑑別診斷時要兩者同時思考。真正呼吸困難的原因要經過有經驗的醫師判斷及進行治療，不過為供患者自己先行瞭解排除原因，減輕不必要的恐慌，謹列出由穴壓治療法發現的常見原因如下，以供參考。

一、 肺功能的異常

除非肺臟本身的缺陷或殘疾，引起呼吸困難，最常見的原因是是：1. 咽喉腫脹、感染；2. 肋間肌、橫膈膜、腹肌的疲乏和受神經中毒所制；3 胸肌拉傷造成呼吸器官功能不足；4. 空氣污染物囤積呼吸器官功能無法擴張；5 胸腔受外力撞擊呼吸器官功能無法正常活動，以及 6. 長期咳嗽呼吸器官能力衰竭。

二、 心功能的異常

除非心臟先天缺陷或殘疾，常見會引起的是呼吸困難的連帶症狀，如胸痛、心悸、心律不整和恐慌等，進

而導致吸不到空氣和胸悶，最常見的是：1. 胃和中焦因飲食不正常，產生消化不良、腹脹而上頂，致使心臟空間縮小，擴張受限、血液流動至肺部不足致呼吸急促困難；2. 緊張、壓力引起胃慾不振，產生胃和中焦功能失常，氣能不足增加上焦呼吸工作量的負擔；3. 焦慮、情緒不穩、緊張、壓力、恐慌引起心臟功能異常，導致胸痛、心悸、心律不整。

總之，心、肺、胃三臟配合一但失常，上、中焦能量負擔變得沉重，均會引起不同程度的呼吸困難，需要謹慎鑑別診斷排除原因，恢復器官功能，才是根本治療，這是穴壓治療的強項，非一般藥物可以解決。

### Q 3. 感冒需要吃藥嗎？

**A** 感冒是一種通稱，指有鼻塞、流鼻水、頭痛、喉嚨痛、發燒等，其症狀和嚴重程度隨以下原因不同而不同：

（1）氣候、溫度的急劇變化致體溫調節不及，稱為：傷風、受寒、著涼。

（2）口、鼻及上呼吸道細菌感染，最常咳嗽、發高燒。

（3）四季或流行病毒感染，其症狀和嚴重程度差異甚大，發燒最為常見。

（4）空氣污染物質的刺激，造成口、鼻及咽喉產生類似感冒的症狀。

以上，除了細菌感染需要服用抗生素外，病毒感染和空氣污染都沒有有效的藥物可以治療，傷風、受寒、著涼則要靠身體的調溫機制來恢復正常。感冒服藥僅能緩解症狀，減輕身體的不適，可能還有副作用，因此，感冒是不是需要吃藥，要靠致病原因而定。一般要多休息、補充適量水分和電解質、少出入公共場所的保守治療，但如果症狀多天加重，或持續發燒不退，就要立刻就醫。

一張晉瑜攝於台北淡水河邊的洛陽停車場

# 稿約

一、新醫學雜誌(Journal of Neo-medicine， ISSN 2617-7447)為穴壓與拔罐學會所發行之醫學學術性刊物，每年 2 月及 8 月出版。

二、本刊投稿之文章全文以五千字為限（含中、英文摘要與圖表）。中、英文摘要五百字以內（內容包含研究目的、方法、結果與結論，以一段式呈現）。中、英文關鍵詞以不超過五個為限。

三、本刊稿件一律為電腦打字 Word 檔（12 號字，中文字體以標楷體，英文字體以 Times New Roman，單行間距，中文標點符號用全型，英文標點符號用半型，稿件若為簡體字請自行轉換為繁體字），並將「投稿者基本資料表及未曾出版聲明」、「著作授權同意書」、「著作權讓與同意書」掃描為圖檔加於稿件最後。（請至穴壓與拔罐學會網頁下載：https://aca999.pixnet.net/blog; https://sites.google.com/view/acataiwan）

四、請勿一稿兩投。來稿請依本刊撰稿規範撰寫，不符者，本刊有權退回要求修改後再予受理。格式請參考穴壓與拔罐學會網頁。

五、投稿若經刊載，請確認刊登時繳交「著作財產權讓與同意書」。稿件著作權歸屬本刊，本刊亦有刪改權，本刊不接受一稿兩投之稿件，凡曾於其它刊物發表或抄襲之稿件，一概拒絕刊登，一切法律問題由投稿者自行負責。惟作者仍保有本著作未來自行集結出版、教學等個人（非營利）使用之權利。

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