

Research progress on acupuncture for weight loss based on the basic principles of traditional Chinese medicine for different syndrome types

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Abstract:

With the development of society, people's living standards continue to improve, and various unhealthy living habits often contribute to the growing obesity rates. An increasing number of individuals are focusing on their weight and seeking healthier methods of weight loss. Acupuncture, as a unique treatment within traditional Chinese medicine, has gradually gained attention due to its minimal side effects, safety, effectiveness, and overall regulation. However, clinical acupuncture treatments for weight loss often rely on empirical acupoint selection and lack a comprehensive and systematic diagnosis and treatment plan. Although many individuals seeking weight loss are aware of acupuncture, they often lack an understanding of its mechanisms. This article is based on the fundamental principles of traditional Chinese medicine, beginning with the etiology and pathogenesis, and delving into treatment methods, acupoint selection principles, and guidelines.

Keywords: Acupuncture, Weight Loss, Syndrome Differentiation, Pathogenesis and Pathology.

As weight loss is currently the most concerning topic among people, regardless of whether they are obese or overweight, people are more inclined towards a healthy, non-toxic, and preventive intervention for weight loss. At present, traditional treatment methods for obesity (including diet control, exercise, and medication) lack compliance and cannot effectively control body weight for all patients^[1]. Acupuncture, as the most widely spread traditional therapy worldwide, mainly aims to stimulate acupoints to suppress the patient's excessive appetite, inhibit the overactive gastrointestinal digestion and absorption function, thereby reducing energy intake, or to promote energy metabolism, increase energy expenditure, promote fat breakdown, and achieve weight loss^[2]. Many studies have shown that acupuncture not only achieves weight loss but also improves complications such as hyperlipidemia, hypertension, hyperglycemia, and coronary heart disease to different degrees, exhibiting a beneficial bidirectional regulatory effect^[3]. This article explores the acupoint selection principles and mechanisms of acupuncture treatment for different types of obesity, providing more targeted treatment recommendations for clinical treatment, which is of certain clinical significance for further optimizing treatment plans.

I enjoyed learning about the beneficial bidirectional regulatory effect of acupuncture in treating obesity and improving complications such as hyperlipidemia, hypertension, hyperglycemia, and coronary heart disease. It's fascinating how acupuncture aims to stimulate

acupoints to suppress excessive appetite and promote energy metabolism. This knowledge could lead to more targeted treatment recommendations for clinical practices.

1. The etiology and pathogenesis of obesity

1.1 The etiology of obesity

Identifying and seeking the causes is the premise for correct treatment. In the "Huang Di Nei Jing", ancient people divided the obese population into three categories: those with excess fat, those with excess oil, and those with excess flesh^[4]. As for the etiology of obesity, traditional Chinese medicine believes that obesity is related to factors such as irregular diet, lack of physical labor, emotional imbalance, and inadequate innate endowment. The body's righteous qi (Qi is an extremely subtle substance in the human body with strong vitality and unceasing operation, and it is one of the basic substances that constitute the human body and maintain its life activities.) is deficient, unable to transform and transport the essence of water and grains, leading to the blockage caused by dampness, heat, phlegm (For TCM terminology, for pathogenic factors For TCM terminology, for pathogenic factors), and stasis, resulting in the occurrence of obesity.

1.1.1 Overeating

In the "Plain Questions: Unusual Diseases" it is mentioned "This fatness originates from this; this person must frequently consume sweet and fatty foods^[5]." On

one hand, it explains that having a preference for rich and sweet food, and being greedy in consuming fatty and sweet flavors can lead to obesity. In the “Discussion on the Spleen and Stomach” it states “The source of Yin(Yin and Yang are philosophical categories created by ancient Chinese sages)ultimately lies in the Five Flavors; the damage of Yin arises from the Five Flavors. As for the Five Flavors, the mouth craves and desires to eat it. It must be self-regulated and not consumed excessively. Excessive consumption will harm its normal functioning^[6].” Furthermore, from another perspective, it explains that long-term excessive intake will inevitably exceed the ability of the spleen and stomach to receive and transform, and the five flavors of diet cannot produce vital essence and nutrients throughout the body. Instead, it stagnates and does not transform, accumulating dampness to produce phlegm, transforming into the surplus fats and oils, depositing between the skin and flesh, ultimately resulting in obesity.

1.1.2 Neglecting Labor

In the “Plain Questions·Proclaiming the Five Qi,” it is emphasized that prolonged lying down harms the qi, and prolonged sitting harms the flesh. It underscores that prolonged lying down and sitting are particularly harmful to the body. Lack of exercise, irregular daily routines, impede the smooth circulation of qi and blood, causing disruptions in the spleen and stomach functions of transporting and transforming essential nutrients and fluids, making it prone to the generation of phlegm and dampness. With weakened blood circulation, it can lead to the internal generation of stagnant blood(It is a pathological product formed by the impaired operation and stagnation of blood in the body), easily leading to the accumulation of fat and resulting in obesity^[7].

1.1.3 Emotional imbalance

Emotional imbalance such as anger, liver damage, spleen injury, or emotional changes such as depression, fear, will affect the spleen’s function of distributing water and lead to obesity. In “Huang Di Nei Jing·Su Wen·Shang Gu Tian Zhen Lun”, it is stated that “All anger, sorrow, and fear will damage the Yuan Qi(Physiological role of Yuan Qi in promoting human growth, development and reproductive functions).” In traditional Chinese medicine, the spleen is associated with thoughts, and when the spleen is injured, its function of transforming and transporting nutrients is disrupted, leading to the internal production of dampness, phlegm, and obesity; Liver qi stagnation affects the healthy functioning of the spleen and the metabolism of water and food nutrients, resulting in obesity^[8].

1.1.4 Congenital Endowment

The beginning of human life is based on the mother and follows the father. In “Spiritual Pivot·Twenty-five People of Yin and Yang,” it is mentioned that “People with the Earth form... have a yellow complexion, round face, large head, beautiful shoulders and back, large abdomen, beautiful thighs and shins, small hands and feet, and abundant flesh,” and “People with the Water form... have a large head, modest cheeks, small shoulders, large abdomen...^[9]” The former description refers to general obesity, while the latter description indicates central obesity with a large abdomen, both of which are caused by inheritance, demonstrating different types of obesity influenced by congenital endowment. Regarding this, “Prescriptions for One Hundred Diseases” specifically points out: “Obesity is due to insufficiency of true Yuan qi.” True Yuan qi refers to the true yang in the kidneys(Functions of the kidneys with regard to heat, the root of yang energy in the human body). “The kidneys govern water,” and kidney deficiency weakens the assistance of the spleen in generating essence and transforms dampness into fat. Qi and blood are obstructed, and eventually, phlegm and dampness obstruct and stagnate between the muscles and skin throughout the body, within the peritoneum, and inside the organs, leading to the development of obesity^[10].

1.2 Obesity Pathogenesis

Obesity is influenced by the imbalance of yin and yang due to qi deficiency, yang deficiency, phlegm-dampness, and blood stasis. Among these, the primary cause is qi deficiency leading to phlegm-dampness, as proposed in “The essential of Danxi’s Therapy” by Zhu Danxi in the Yuan Dynasty^[11]. From the cause to the characteristics of obesity, it can be confirmed that it is a syndrome of both deficiency and excess, with both being interdependent^[12]. “Plain Questions: Elucidation of Aspects” stated that deficiency of the liver, kidney, and spleen all lead to a heavy body and irritability. Modern research similarly indicates that the pathogenesis of obesity is related to the dysfunction of the spleen, liver, and kidney^[13]. When the spleen qi is deficient, the transportation and transformation functions are compromised, resulting in the internal generation of turbid phlegm-dampness and the accumulation of turbid fat and dampness water internally. When the kidney yang is deficient, the functions of qi transportation and warming are reduced, making it difficult for turbid phlegm-dampness and turbid fat and dampness water to be propelled by qi transformation, leading to obesity. The dysfunctional regulation and circulation of the liver leads to stagnation of qi, affecting the transportation and transformation of body fluids, grease, and fat, and causing the accumulation of turbid fat,

dampness, and phlegm over time.

2. Classification and differentiation of obesity

The etiology and pathogenesis of obesity are complex. At present, there is still no complete uniformity in the differentiation and classification of obesity in traditional Chinese medicine. However, many medical practitioners have achieved a lot in clinical practice by applying the basic theories of traditional Chinese medicine to differentiate and treat obesity and have made many achievements in the aspect of differentiation and classification, involving the spleen, stomach, intestines, liver, kidneys, heart, qi, blood, phlegm, dampness, heat, and blood stasis^[14]. However, many patterns have different names but similar meanings, such as spleen-kidney deficiency and spleen-kidney yang deficiency. In common clinical cases, several patterns are often predominant and are commonly divided into 3 to 5 patterns^[15]. In recent years, the focus of differentiation has been on the treatment of gastric heat-phlegm-stasis, spleen deficiency-phlegm-dampness, liver-qi stagnation, and liver-kidney deficiency, and a basic consensus has been formed^{[16][17]}.

3. Acupuncture points selection in treatment based on syndrome differentiation

Differentiating treatment based on the theory of syndrome differentiation is essential for achieving therapeutic effects. As early as in the “Huang Di Nei Jing,” the principle of syndrome differentiation and treatment for weight loss was put forward: “It is necessary to first distinguish the three forms, the quantity of blood, and the clarity of qi, and then adjust and treat without deviating from the normal course.” The determination of syndrome differentiation in treating obesity is based on the “Clinical Research Guidelines for the Treatment of Obesity with Chinese Medicine^[18]” issued by the Ministry of Health of the People’s Republic of China and the standards established at the Fifth National Conference on Obesity Research held in Beijing in 1997^[19]. Obesity is classified into five syndrome types for treatment according to traditional Chinese medicine syndrome differentiation, namely, gastric heat phlegm stasis type, spleen deficiency phlegm dampness type, liver qi stagnation type, liver-kidney deficiency type, and yin deficiency and internal heat type. However, the clinical symptoms faced are diverse, so when treating obesity, doctors not only need to differentiate treatment based on the established standards but also need to integrate the patient’s own condition and the clinical experience of the practitioner. Differentiated

treatment based on syndrome differentiation, especially through acupuncture for weight loss, can achieve ideal therapeutic effects^[20].

3.1 Gastric fever

Patients with a hot and humid type of stomach and intestines are often seen. They are stout, hefty, and often obese. They are accompanied by loud noises in the stomach and abdomen, excessive hunger and overeating, excessive energy, a reddish and shiny complexion or a sour breath, swollen and painful gums, thirst and drinking, yellow urine, red tongue with yellow fur, and a taut, smooth, and strong pulse. The clinical treatment principle is mostly to clear the hot and humid conditions in the stomach and intestines and promote bowel movement to reduce fat. The “Su Wen · Discussion on Cough” mentions: “Treatment of the viscera means treating their He acupoint(The He acupoint is located near the elbow and knee joints, and is the place where the meridian qi penetrates deeply into the internal organs.)” The “Ling Shu · Four Seasons for Regulating Qi” points out: “When the disease is in the stomach due to an irregular diet, treat it at He acupoint.” Therefore, the primary points for clearing and purging the hot organs and bowels are the He points and the Lower He points(The qi of the six internal organs descends to the acupoints of the Foot Tri-Yang Meridian in the lower limbs.) for the Hand and Foot Yang meridians(Six of the twelve meridians in the human meridian system.). The He points of the Stomach meridian are Liangqiu(Name of Acupuncture Points), the Luo-Connecting point(“Luo” has the meaning of contact, spread. Each of the twelve meridians is divided into a complex, so each has a complex point.) of the Spleen meridian is Gongsun(Name of Acupuncture Points), and the Lower He point for the Triple Burner meridian is Zhigou(Name of Acupuncture Points). When these points are used together, they have the effect of transforming dampness, invigorating the spleen, eliminating phlegm, clearing and purging stomach heat, and reducing fat. They can also transform fat into phlegm and lipids and excrete the moisture with feces.

3.2 Spleen deficiency and phlegm dampness.

Patients of this type typically present with obesity, irritability, a feeling of fullness and oppression in the chest and hypochondrium, fatigue, weakness, aversion to cold, clear and watery leukorrhea, thin pulse, and greasy white coating on the tongue. The main clinical treatment principles involve invigorating the spleen and eliminating dampness, as well as resolving turbidity and dissipating fat. When the spleen loses its function, treatment should focus on resolving phlegm and stasis^[21]

^[22]. Acupuncture at Fenglong point(Name of Acupuncture Points)can help transform tangible and intangible phlegm, regulate the spleen and stomach, promote transportation and transformation, dispel turbidity, and eliminate the source of phlegm. In addition, Zusanli point(Name of Acupuncture Points)can regulate the function of the spleen and stomach, while Sanyinjiao point can drain the dampness of Yangming and Taiyin(Name of Acupuncture Points)to assist with the transportation and transformation of the spleen and stomach to distribute body fluids. Therefore, commonly used acupoints are supplemented by Spleen, Qihai, Yinlingquan, Sanyinjiao, Fenglong, Zusanli, and Taibai(Name of Acupuncture Points)using the acupuncture method of balancing purgation and tonification.

3.3 Liver depression and stagnation of qi.

Patients with liver depression and stagnation of qi often present with obesity, distension and fullness in the chest and hypochondrium, irritability, bitterness in the mouth and dry throat, insomnia and vivid dreams, and in women, breast distension and pain or lower abdominal distension and pain, irregular menstruation, amenorrhea, greasy or thin coating, dark red tongue, and wiry or thin pulse. The main clinical treatment principles involve soothing the liver, relieving depression, clearing turbidity, and dissipating fat. The liver governs coursing and discharge, regulates the circulation of qi, and promotes the transformation of qi in the Zang-Fu organs(It is the core organ of the human body and dominates the body's life activities). It is necessary to simultaneously regulate the liver meridian and spleen meridian^[23]. Acupuncture points such as Geshu point of the liver meridian, Hegu point of the Large Intestine meridian, Taichong point of the liver meridian, Zhigou, Xuehai, Ququan, and Yanglingquan(Name of Acupuncture Points)are often used for treatment.

3.4 Liver and Kidney Deficiency

The clinical presentations of this type of patient often include swelling and obesity, especially in the waist, abdomen, and lower limbs, along with a pale and bloated complexion, fatigue, pale facial complexion, cold limbs, clear and prolonged urination, pale red tongue with white coating, and weak and thin pulse. If there is deficient kidney qi and weakened yang, it can affect the spleen yang, leading to water and dampness accumulation, resulting in obesity^[24]. The kidneys control the steaming and transformation of water fluids. Insufficient kidney yang can lead to water and dampness retention and the formation of phlegm, causing various pathological changes and resulting in obesity. Injury to liver and

kidney yang causes an imbalance of yin and yang^[25]. Therefore, selecting acupuncture points like Guanyuan, Qihai, Shuifen, Taixi(Name of Acupuncture Points)to tonify the spleen and kidneys and boost the body's yang qi is important. Back-shu points(The dorsal acupoints are the points on the back of the foot solar bladder meridian.) are the hub for the transfer of visceral organ qi in the lower back and the circulation throughout the entire body. Needling at these points can directly adjust the function of the organs, and kidney-back-shu point can strengthen the kidney and enhance the storage and transformation of qi. Therefore, it is often combined with Guanyuan, Zusanli, Zhongwan, Qihai, Shenshu, Daheng, Taixi, Ganshu(Name of Acupuncture Points) acupuncture points.

4. Conclusion

With the increasing incidence of obesity, weight loss has been receiving more and more attention. The pathogenesis of obesity is mainly related to deficiency of Qi, phlegm, dampness, and stasis. Phlegm, stasis, and dampness run through the entire process of obesity. The main site of the disease is in the spleen and stomach, and may also involve the liver and kidneys. Therefore, clinical treatment should start with the spleen and stomach, regulate the liver and kidneys, supplement deficiencies, reduce excess, and treat both the root cause and the symptoms, adopting the basic treatment principles of tonifying the spleen and resolving phlegm, draining turbidity and dissolving fats, raising clear and lowering turbid, and eliminating phlegm and removing dampness. Traditional Chinese medicine treatment of simple obesity is significant, but there are also some issues. For example, there is a need for more clinical operations and the need to develop comprehensive treatment measures. Clinical evaluation indicators are limited, and the assessment criteria for acupuncture and massage weight loss treatment need comprehensive analysis. Therefore, in clinical treatment, it is necessary to give targeted treatment plans based on the patient's body response to ensure good results in weight loss treatment through acupuncture and massage.

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