Clinical Efficacy of Simple Obesity Treated by Catgut Implantation at Acupoints*

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ABSTRACT  Objective: To observe the clinical efficacy of treatment with catgut implantation at acupoints on simple obesity. Methods: Following the theory of Chinese medicine (CM), pattern identification (PI) and treatment was based on the patient’s symptoms and signs. Patients were observed during three courses and one year following treatment through self-comparison before and after six or seven acupoints catgut implantation. Obesity was divided into five types based on PI: (1) Stomach (Wei) and Intestine excess-heat, (2) Spleen (Pi) deficiency and phlegm-wet stagnancy, (3) Liver (Gan)-qi stagnation, (4) Spleen-Kidney (Shen) yang deficiency, and (5) Liver-Kidney yin deficiency. Changes in the following measurements were recorded in 820 patients: body weight, body girth, skin-fold thickness, body mass index (BMI), fat percentage (F%), and waist/hip ratio (WHR) and in the following blood values: leptin (LP), insulin (INS), blood lipids, fasting blood sugar (FBS), and insulin sensitive index (ISI) before and after the treatment. Values were compared with those of healthy controls (normal group). Results: Catgut implantation showed efficacy with all five types of obesity. Efficacy was greater in males than in females. There was no significant difference between the different types by Kruskal-Wallis H test, but the effect was best and of the highest number in patients with Stomach and Intestine excess-heat. Skin-fold thickness, body weight, waist circumference, F%, BMI, and WHR in all 820 cases decreased after treatment (at 90 days and one year), with significant differences before and after treatment (P<0.01). Improved metabolism of blood lipids was also seen. Following treatment, LP, INS, and FBS decreased significantly (P<0.01) and ISI increased significantly (P<0.05). Conclusion: Catgut implantation at acupoints provided effective and persistent results, convenience, safety, painlessness, and prolonged effect with no side effects, resulting in reduced body weight and fat and improvement in body shape.

KEYWORDS  anti-obesity agents, catgut, acupoints

Simple obesity is one of the most common worldwide epidemics, and has been increasingly highlighted for attention by physicians. Obesity not only affects the shape of body and its beauty, but also increases the incidence of cardiovascular disease, diabetes, hyperlipidemia, infertility and tumors. It adversely influences our physical and mental health, weakens immunity and increases fatality rates. Obesity has taken the place of malnutrition and infectious disease and become one of the primary factors endangering human health. Obesity has become a global health problem in the 21st century, and is a central issue in the medical community. Since March 2005, we have conducted numerous effective treatments for weight loss using catgut implantation at acupoints.

METHODS

Diagnostic Standard

Simple obesity is based on the Chinese and Western Integrative Medicine Diagnosis and Criterion of Therapeutic Effect of Simple Obesity formulated at the Fifth Shanghai National Obesity Research Academic Conference in 1997.© The Chinese Journal of Integrated Traditional and Western Medicine Press and Springer-Verlag Berlin Heidelberg 2012 ©Supported by Science Research Projects of Colleges and Universities of Liaoning Provincial Committee of Education (No. 05L121)
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Inclusion and Exclusion Criteria

The inclusion criteria: (1) conform completely to the diagnostic standard of simple obesity; (2) did not adopt other weight loss methods one month before and during the treatment; and (3) informed signed consent.

The exclusion criteria: (1) cardiovascular

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disease, cerebrovascular disease, infectious disease, diabetes, gout, serious primary diseases of liver, kidney and hemopoietic system, pregnant or lactating women, mental illness; (2) did not reach the end of the required observation course and discontinued the treatment or adopted other weight loss methods.

General Data

From March 2005 to December 2010, 820 patients were recruited from the out-patient service of the weight loss clinic of the First Affiliated Hospital of Dalian Medical University. Informed consent was obtained and the study was approved by the Ethics Committee. There were 184 males and 636 females; among which, the youngest was 15 years, the oldest was 68 years (average: 38.5 years). The shortest course of disease was 2 months and the longest was 33 years (average: 7 years). There were 438 cases of mild obesity, 270 cases of moderate obesity and 112 cases of severe obesity. One hundred healthy patients were chosen as normal controls.

Clinical Pattern Identification (PI) and Acupoint Selection

Stomach (Wei) and Intestine excess-heat: main symptoms are obesity, excessive appetite or polyrexia, thirst with desire for cold drinks, brown urine, constipation, red tongue with yellowish fur, and wiry and rolling pulse. Prescription: Weishu (BL 21), Neiting (ST 44), Quchi (LI 11), Zhongwan (RN 12), Tianshu (ST 25), Xiajuxu (ST 39), Dachangshu (BL 25), and Zusanli (ST 36).

Spleen (Pi) deficiency and phlegm-wet stagnancy: main symptoms are obesity, fatigue, fatigued and heavy body, little absorption and abdominal distension, loose stools and oliguresis, occasional mild edema of the lower limbs, pale tongue with tooth marks around the edges, greasy fur on tongue, soft pulse. Prescription: Pishu (BL 20), Yinlingquan (SP 9), Zusanli (ST 36), Sanyinjiao (SP 6), Zhongwan (RN 12), Shuifen (RN 9), and Fenglong (ST 40).

Liver (Gan)-qi stagnation: main symptoms are obesity, thoracic and gastric cavity oppression, occasional ache, dysphoria and irritability, light-headedness, swollen breasts for women, swollen and painful lower abdomen, irregular menstruation, thin and white fur on tongue, wiry pulse. Prescription: Ganshu (BL 18), Taichong (LR 3), Qimen (LR 14), Danzhong (RN 17), Zhigou (SJ 6), Xuehai (SP 10), and Sanyinjiao (SP 6).

Spleen-Kidney (Shen) yang deficiency: main symptoms are obesity, cold body and cold extremities, lower abdomen and waist and knee cryalgiesia, little absorption and loose stool, oliguresis and swollen limbs, oligomenorrhea or even amenorrhea, light and fat tongue, weak and sunken pulse. Prescription: Pishu (BL 20), Shenshu (BL 23), Sanyinjiao (SP 6), Qihai (RN 6), Taixi (KI 3), Zusanli (ST 36), Mingmen (DU 4), and Guanyuan (RN 4).

Liver-Kidney yin deficiency: main symptoms are obesity, light-headedness, numbness of the limbs, thirst and tinnitus, soreness and weakness of waist and knees, dysphoria in chest, palms and soles, spermatorrhea for men, oligomenorrhea for women, red tongue with little fur, thready rapid pulse. Prescription: Ganshu (BL 18), Shenshu (BL 23), Taichong (LR 3), Taixi (KI 3), Sanyinjiao (SP 6), Zusanli (ST 36), and Guanyuan (RN 4).

Catgut Implantation Method

A catgut implantation bag is constructed as follows: one kidney metal plate, one or two disposable catgut implantation needles, scissors, forceps, No. 2 catgut suture, sterile gloves, three to five pieces of gauze, 250 mL normal saline. The patient completely exposes the acupoints for catgut implantation; which are marked by cotton swabs with iodine. After the skin is sterilized routinely, the forceps are used by the left hand to hold the 1–2 cm catgut suture to be put into the front end of the disposable catgut implantation needle which is then inserted into the acupoint. Following acuesthesia, the stylet is pushed at the same time the needle tube is pulled to ensure the catgut suture is left in the acupoint. After ensuring that no catgut suture is exposed beyond the pinhole, woundplast is applied for protection to be stripped away in 24 h. Bathing is not permitted for two days. Those who are treated with catgut implantation for the first time will feel pain. Some patients experience a fever, feel fatigue and have hypersomnia. These symptoms are considered normal reactions, and usually resolve spontaneously within one week.

According to the theory of Chinese medicine (CM), six or seven acupoints are chosen for each catgut implantation and should be modified based on the patient's symptoms and signs. The acupoints...