Methods and Efficacy of Acupuncture for Regulating Body Weight in Different Populations

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Abstract  Objective: To investigate the proper methods of acupuncture and moxibustion for controlling body weight and their objects. Methods: 274 outpatients were allocated to 3 observation groups: obesity, overweight and normal, using standard weight as an index. The obesity group was divided, at a ratio of 1: 1: 3, into 3 groups: fixed prescription, local treatment and treatment based on syndrome differentiation. The syndromes were classified into five types in the syndrome differentiation group. Different protocols of acupuncture and moxibustion plus auricular-plaster therapy were drawn up for treatment. Body mass index (BMI), body fat (F%), body circumferences and subcutaneous fat were evaluated in the patients before and after treatments. Results: There was a difference in the controlling effect of acupuncture on body weight among different populations. The curative effect was better in the obesity and overweight groups than in the normal group; the effective rate was 72.2%, 72.5% and 44.0%, respectively. There was also a difference in curative effect among obesity patients with different types of syndromes. The curative effects on retention of damp-heat in the stomach, stagnation of liver qi and dampness retention due to splenic hypofunction were equal but all better than those on deficiency of splenonephric yang and internal heat due to yin deficiency. There was also a difference in curative effect among different protocols. The curative effects in the syndrome differentiation-based treatment and fixed prescription groups were equal (77.8%) but all better than that in the local treatment group (53.3%). Conclusion: Acupuncture and moxibustion is an effective way to treat obesity and overweight. Treatment based on syndrome differentiation and fixed prescription on the basis of syndrome differentiation are effective methods.

Key Words  Acupuncture-Moxibustion; Obesity; Auricular Point Sticking

Clinical Study
Obesity has now become one of the global greatest public health problems. Studies on the mechanism of overweight and obesity, and effective methods for controlling body weight and treating obesity has become the current hot subject in medical circles. NIH issued "NIH strategic plan for obesity research" in Aug., 2004 and proposed four subjects of obesity research: 1) preventing and treating obesity by a change of life style, 2) preventing and treating obesity by medication, surgery and other treatments, 3) severing the relationship between obesity and its complications, 4) exchanging and integrating various aspects of obesity research (integration of basic, clinical and population researches )[1], indicating the direction for global control of obesity. Our country also published corresponding research reports. But up to now there have been no long-term effective drugs and methods for controlling and reducing body weight. Acupuncture and moxibustion, as a main treatment of alternative medicine, has scored remarkable achievements in the clinical practice of controlling body weight. The research has showed that acupuncture is a long-term effective method for controlling body weight without obvious side effects. But, what kind of patient will be most suitable for acupuncture control and weight loss? The present study answers this question by analyzing the methods and effects of treatment in the acupuncture weight reduction clinic from 2003 to 2005.

**Clinical Data**

1. **Diagnosis criteria**

Diagnosis criteria of western medicine: Exclusion of symptomatic (secondary) obesity by a history, physical and laboratory examinations; actual weight over 120% of standard weight, fat percentage over 30% and body mass index (BMI) over 28. Obesity is diagnosed if 2 of the 3 items exist.

Diagnosis criteria of traditional Chinese medicine: Manifested in corpulent body, lassitude, edema and oliguria, hyperphagia, yellow urine and constipation, melancholy, irritability, or lumbar soreness and impotence, irregular menstruation, yellow or white greasy tongue coating, slippery or deep thready pulse.

2. **Exclusion criteria**

The age below 18 or above 65; pregnant or breast feeding women; associated with serious cardiovascular disease, infective disease, cerebrovascular disease, diabetes, gout, serious primary diseases of the liver, kidney and hematopoietic system, or psychosis; weight reduction by dietotherapy, pharmacotherapy or kinesitherapy at present or during the last three months; not conforming to the inclusion criteria, not under prescribed treatment, unable to evaluate the curative effect or incomplete data, which affect the assessment of curative effect or safety.

3. **Syndrome differentiation**

Retention of damp-heat in the stomach: Corpulence, fullness of head, vertigo, hyperphagia, body heaviness, lassitude, thirst, preference for drinking water, constipation, red tongue proper, slightly yellow greasy tongue coating and slippery or rapid pulse.

Dampness retention due to spleen deficiency: Corpulence, edema, tiredness, asthenia, body heaviness, hyporexia, poor appetite, abdominal fullness, pale tongue proper, thin greasy tongue coating, and thready and slippery pulse.

Stagnation of liver qi: Corpulence, melancholy, irritability, hypochondriac and abdominal distention and fullness, irregular menstruation, insomnia, dreaminess, white or thin greasy tongue coating, and thready and taut pulse.

Deficiency of spleen-yang: Corpulence, tiredness, asthenia, lumbar soreness and leg weakness, impotence, sensation of cold in the genitalia, pale tongue proper, white tongue coating, and deep thready and weak pulse.

Internal heat due to yin deficiency: Corpulence, dizziness, fullness of head and headache, soreness and weakness in the lower back and knee, dysphoria with a sensation of fever in the chest, palms and soles, low fever, red tongue proper, white tongue coating, and rapid thready and slightly taut pulse.

4. **Subjects**

Two hundred and seventy-four patients underwent the treatment for over 3 months, had complete data and did not experience important events that influence body weight during the treatment.

They were allocated to 3 groups: obesity, overweight and normal. Obesity (198 cases) was defined as exceeding 120% of standard weight, overweight (51 cases) as exceeding 110% of standard weight and normal (25 cases) as being within 90%-110% of standard weight.