

Current situation and analysis of clinical application of auricular acupoint sticking therapy

耳穴贴压法临床应用现状与分析

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Abstract

Objective: By the bibliometrical analysis and evaluation of acupuncture theses on auricular acupoint sticking from 2005 to 2014, the analysis was processed from multiple aspects including the types and numbers of diseases and effective rates of various diseases, in order to objectively reflect the general situation of clinical application of ear point embedding method in the recent years.

Methods: By the bibliometrical analysis, the literature on auricular acupoint sticking in the recent ten years was counted up, analyzed and categorized.

Results and Conclusion: Auricular acupoint sticking is used clinically for diseases of 16 systems, including 130 diseases. 74 diseases were singularly treated with auricular acupoint sticking, including the advantageous disease category like insomnia, constipation and obesity, and secondary advantageous disease category like dysmenorrhea, myopia, allergic rhinitis, post-operative pain and acne vulgaris.

Keywords: Acupoint Therapy; Auricular Acupoint Sticking; Auricular Acupuncture; Bibliometrics; Evaluation Studies

【摘要】目的:对 2005 年至 2014 年间有关耳穴贴压法的针灸论文进行文献计量分析与评价,从病症种类、数量、各病症的有效率等方面进行多方位分析,以期客观反映近年来耳穴贴压法的临床应用概况。**方法:**采用文献计量分析的方法,对近 10 年耳穴贴压法的文献进行统计、分析和归纳。**结果和结论:**耳穴贴压疗法应用于临床 16 个系统病症,共涉及 130 个病种。单用耳穴贴压法治疗的病种为 74 个,其中优势病种为失眠症、便秘和肥胖,次优势病种为痛经、近视、变应性鼻炎、术后疼痛及寻常性痤疮。

【关键词】穴位疗法;耳穴贴压;耳针;文献计量学;评价研究

【中图分类号】R245.9 **【文献标志码】**A

Auricular acupoint sticking refers to a therapeutic method to embed the smooth and hard medicinal seeds or herbal pills on the ear points, such as *Wang Bu Liu Xing (Semen Vaccariae)*, magnetic beads, *Lai Fu Zi (Semen Raphani)*, *Bai Jie Zi (Semen Sinapis Albae)*, or plastic beads. Developed from ear acupuncture, auricular acupoint sticking has extensive indications, quick effects, simple operation, easy popularization and affordable cost. In-depth analysis and studies on disease spectrum of acupuncture and disease spectrum of different therapies over the recent years have greatly contributed to the research advance in advantageous diseases indicated by acupuncture. By using data from the Traditional Chinese Medical Acupuncture-moxibustion Information Databank, China National Knowledge Internet (CNKI), Wanfang Academic Journal

Full-text Database (Wanfang) and Chongqing VIP Database (CQVIP), the relevant literature on auricular acupoint sticking in recent years was comprehensively searched, and by the statistical analysis of Traditional Chinese Medical Acupuncture-moxibustion Information Databank, auricular acupoint sticking was analyzed from multiple aspects including disease types, numbers and effective rates of various diseases, in order to confirm the current situation of clinical application of auricular acupoint sticking for advantageous disease category, and summarize and analyze the commonly used ear points, so as to further guide the clinical application of auricular acupoint sticking.

1 Data and Methods

1.1 Literature sources

In the computer searching of the literature and data published between 2005 and December of 2014 via Traditional Chinese Medical Acupuncture-moxibustion Information Databank (designed and manufactured by

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Shanghai Research Institute of Acupuncture and Meridian), CNKI, Wanfang and CQVIP, 'pill-embedding method of ear points', 'auricular acupoint sticking' and 'seed-embedding method of ear point' in Chinese language were used as the key words, and titles or key words or topics' were used as the searching items, with other various items in the default setting. Auricular acupoint sticking in this study includes using different materials for auricular acupoint sticking, such as *Wang Bu Liu Xing (Semen Vaccariae)*, *Lai Fu Zi (Semen Raphani)*, or magnetic beads.

1.1.1 Inclusion criteria

The theses of clinical studies or clinical reports include singular application of auricular acupoint sticking and comprehensive therapy of auricular acupoint sticking in combination with other therapies, such as auricular acupoint sticking plus acupuncture, plus herbal drugs, or plus pricking technique on the back; with a sample size ≥ 10 cases, attached with detailed methods for ear point selection and treatment, precise clinical effects and reliable data; published between 2005 and 2014.

1.1.2 Exclusion criteria

Articles about single case study, experience of famous doctors, experimental study, needling techniques and moxibustion methods, acupoint study, meridian study, literature study, acupuncture anesthesia, and acupuncture accidents; repeated publication or literature with data error; sample size < 10 cases, or without clinical effect, or without method for acupoint selection and treatment; and the articles about auricular acupoint sticking before 2005 or after 2014.

1.2 Methods

Totally, 2 629 articles of auricular acupoint sticking in conformity with the inclusion criteria were retrieved, including 1 008 articles published between 2005 and 2014, and 195 articles about singular use of auricular acupoint sticking.

Based upon World Health Organization (WHO) International Classification of Diseases-10 (ICD-10)^[7], and in combination with the actual situation of acupuncture and Chinese medicine, 1 008 articles of auricular acupoint sticking in conformity with the inclusion criteria were divided into neurological diseases, metabolic diseases, dermal diseases, digestive diseases and gynecological diseases, totally 16 types of diseases, and were categorized into the disease spectrum of various system for auricular acupoint sticking.

Disease names: Diseases with diagnosis of both traditional Chinese and Western medicine were included by the diagnosis of Western medicine. Diseases without precise diagnosis of Western medicine were included by the diagnosis of Chinese medicine. The diseases without precise diagnosis were excluded.

A total of 195 articles about singular use of auricular acupoint sticking were analyzed by advantageous disease category, secondary advantageous disease category and general disease category. Based upon the number of the articles about the treatment of diseases by auricular acupoint sticking, those over 10 articles (including 10 articles) pertains to the advantageous disease category, 5 to 9 articles (including 5 articles) to the secondary advantageous disease category, and less than 5 articles to the general disease category.

2 Results and Analysis

2.1 Analysis of disease category in various systems treated by auricular acupoint sticking

2.1.1 Formation of article number about diseases of various systems

As shown in Table 1, the numbers of the articles about auricular acupoint sticking in various systems rank in order: 226 articles about neurological diseases (accounting for 22.4% of the total article number), 139 articles about metabolic diseases (accounting for 13.8% of the total article number), 167 articles about digestive diseases (accounting for 16.6% of the total article number), 104 articles about gynecological diseases (accounting for 10.3% of the total article number), 69 articles about dermal diseases (accounting for 6.8% of the total article number). The number of the articles about diseases of blood and immune system were least, totally accounting for 0.1%. There were totally 195 articles about the singular use of auricular acupoint sticking, only accounting for 19.3% of the total article number, indicating that auricular acupoint sticking in combination with other therapeutic methods was extensive and general for the treatment of diseases in various systems. The ratio was not high about the treatment of diseases in various systems by singular use of auricular acupoint sticking.

2.1.2 Analysis of disease types in diseases of various systems

There were 226 articles involving the diseases of the neurological system, about 20 types. Ranked in the order of the article number value, they were in turns insomnia (140 articles), post-operative pain (25 articles), chronic fatigue syndrome (13 articles), headache (8 articles), vertigo (8 articles), migraine (4 articles), facial spasm (4 articles), post-apoplectic sequela (4 articles), dementia (4 articles), pain due to tumors (3 articles), somnolence (2 articles), cervical spondylopathy (2 articles), cerebral infarction (2 articles), and chorea, trigeminal neuralgia, cerebral concussion, chronic emaciation, brachial plexus neuritis, conscious disturbance, and supraorbital neuralgia respectively in 1 article. Insomnia accounted for 61.9% of the total

articles about neurological diseases. It can be seen clearly that in the treatment of neurological diseases by auricular acupoint sticking, over half number was insomnia, indicating that auricular acupoint sticking was quite tendentious in the treatment of neurological diseases regarding the disease type.

There were 167 articles involving the diseases of the digestive system, about 23 types. Ranked in the order of the article number value, they were in turns constipation (56 articles), diaphragm spasm (19 articles), ulcerative colitis (10 articles), gastroparesis (9 articles), post-operative gastrointestinal disturbance (9 articles),

post-operative gastrointestinal flatulence (7 articles), anorexia (6 articles), irritable bowel syndrome (6 articles), gallstone (6 articles), cholecystitis (6 articles), vomiting (6 articles), fatty liver (5 articles), post-apoplectic hiccup (5 articles), indigestion (5 articles), epigastric pain (3 articles), abdominal pain (2 articles), and food poisoning, liver cirrhosis, intestinal obstruction, chronic colitis, incarcerated hemorrhoid, hepatitis, and bile regurgitation respectively in 1 article. In the diseases of the digestive system, this therapy was mostly used for constipation and used comparatively evenly in the rest types of diseases.

Table 1. Formation of article number about treatment of diseases in various systems by auricular acupoint sticking

Type	Article number	Disease number	Article number of singular use (percentage)	Article number in combination with other methods (percentage)
Neurological	226	20	48 (21.2%)	178 (78.8%)
Digestive	167	23	39 (23.4%)	128 (76.6%)
Metabolic	139	3	14 (10.1%)	125 (89.9%)
Gynecologic	104	23	17 (16.3%)	87 (83.7%)
Dermal	69	10	14 (20.3%)	55 (79.7%)
ENT	68	16	21 (30.9%)	47 (69.1%)
Mental	64	8	14 (21.9%)	50 (78.1%)
Urinary	52	10	4 (7.7%)	48 (92.3%)
Motor	45	16	12 (26.7%)	33 (73.3%)
Cardiovascular	31	6	3 (9.7%)	28 (90.3%)
Oncologic	18	2	3 (16.7%)	15 (83.3%)
Respiratory	14	7	5 (35.7%)	9 (64.3%)
Endocrine	3	2	0 (0.0%)	3 (100.0%)
Blood	3	1	0 (0.0%)	3 (100.0%)
Immunologic	1	1	0 (0.0%)	1 (100.0%)
Others	4	4	1 (25.0%)	3 (75.0%)
Total	1 008	152	195 (19.3%)	813 (80.7%)

There were 139 articles involving metabolic diseases, about 3 types. Ranked in the order of the article number value, they were in turns obesity (118 articles), diabetes (17 articles), and hyperlipemia (4 articles). In the treatment of metabolic diseases by auricular acupoint sticking, obesity was most, accounting for 84.9% of the total number of the articles about metabolic diseases. The diseases related to blood sugar accounted for 12.2% of the total number. The other types of the diseases were fewer.

There were 104 articles involving the gynecological diseases, about 23 types. Ranked in the order of the article number value, they were in turns dysmenorrhea (29 articles), perimenopausal syndrome (20 articles), hyperemesis gravidarum (7 articles), pelvic inflammation (7 articles), fibrocystic breast disease (4 articles), mastalgia (4 articles), menstrual headache

(4 articles), irregular menstruation (4 articles), post-abortion syndrome (3 articles), female infertility (3 articles), uterine bleeding (2 articles), premature ovarian failure (2 articles), mammary gland hyperplasia (2 articles), hypogalactia (2 articles), menopause (2 articles), afterpains (2 articles), and hysteroptosis, endometriosis, ovarian cysts, premenstrual syndrome, uterine fibrosis, leucorrhea, and common cold due to pregnancy respectively in 1 article. In the gynecological diseases, there were more articles about treatment of dysmenorrhea by auricular acupoint sticking, accounting for 27.9%.

There were 69 articles involving the dermal diseases, about 10 types. Ranked in the order of the article number value, they were in turns acne vulgaris (28 articles), chloasma (18 articles), wart (7 articles), herpes zoster neuralgia (4 articles), hyperhidrosis

(3 articles), urticaria (3 articles), psoriasis (2 articles), eczema (2 articles), and hypertrophic rosacea and vitiligo respectively in 1 article. There were more articles about the treatment of acne vulgaris by auricular acupoint sticking, accounting for 40.6% of the dermal diseases.

There were 68 articles involving the ear, nose and throat (ENT) diseases, about 16 types. Ranked in the order of the article number value, they were in turns myopia (17 articles), allergic rhinitis (9 articles), amblyopia (8 articles), pharyngitis (7 articles), deafness (5 articles), tinnitus (4 articles), pseudomyopia (3 articles), mouth ulcer (3 articles), blink (2 articles), xerophthalmia (2 articles), Meniere disease (2 articles), rhinitis (2 articles), and hyperopia, keratitis, temporomandibular joint syndrome, and motion sickness respectively in 1 article.

There were 64 articles involving the mental diseases, about 8 types. Ranked in the order of the article number value, they were in turns depression (21 articles), Tourette syndrome (9 articles), smoking cessation (9 articles), attention deficit hyperactivity disorder (7 articles), neurasthenia (5 articles), anxiety disorder (5 articles), heroin dependence (4 articles), and athletic syndrome (4 articles).

There were 52 articles involving the diseases of the urinary system, about 10 types. Ranked in the order of the article number value, they were in turns enuresis (15 articles), post-operative retention of urine (14 articles), postpartum retention of urine (6 articles), urinary stones (5 articles), renal colic (5 articles), glomerulonephritis (2 articles), renal failure (2 articles), and post-apoplectic urinary incontinence, urinary infection, and prostatitis respectively in 1 article. The disease types were fewer in the treatment of urinary diseases by auricular acupoint sticking. But, enuresis and post-operative retention of urine were commonly seen.

There were 45 articles involving the diseases of the motor system, about 16 types. Ranked in the order of the article number value, they were in turns cervical spondylopathy (11 articles), lumbar intervertebral disc displacement (6 articles), ankle injury (5 articles), low back and thigh pain (5 articles), scapulohumeral peri-arthritis (3 articles), lumbar sprain (2 articles), soft tissue injury (2 articles), osteoporosis (2 articles), bone fracture (2 articles), and tennis elbow, piriformis syndrome, lumbar strain, dislocation, stiff neck, joint pain, and Tietze syndrome respectively in 1 article.

There were 31 articles involving the diseases of the cardiovascular system, about 6 types. Ranked in the order of the article number value, they were in turns hypertension (26 articles), and cardiac failure, arrhythmia, angina pectoris, cardiovascular neurosis, ventricular premature beat respectively in 1 article. Auricular acupoint sticking was majorly used to treat

hypertension in the diseases of the cardiovascular system, accounting for 83.9% of the total number.

In the 18 articles involving tumors, totally 2 types of the diseases were observed, adverse reaction after radiotherapy and chemotherapy, including vomiting (16 articles) and gastrointestinal reaction (2 articles).

There were 14 articles involving the diseases of the respiratory system, about 7 types. Ranked in the order of the article number value, they were in turns chronic pharyngitis (5 articles), cough (2 articles), pulmonary tuberculosis (2 articles), chronic obstructive pulmonary disease (2 articles), and pulmonary heart disease, asthma, and bronchitis respective in 1 article. The literature was comparatively fewer about the treatment of the diseases in the respiratory system by auricular acupoint sticking.

In summing up the systematical diseases of less than 10 articles, there were totally 11 articles and 8 types of the diseases totally observed, including blood diseases (3 articles), diseases of endocrine system (3 articles), diseases of immunological system (1 article) and others (4 articles). The concrete disease types were in turns anaphylactoid purpura (3 articles), menopause syndrome (2 articles), and thyroid nodule, Sjogren syndrome, stress, nocturnal fretfulness in infants, and altitude stress respectively in 1 article.

Analyzed from the disease types of various systems, the diseases of the sixteen systems totally involved 152 types of diseases, including 51 types discussed by 1 article, 26 types discussed by 2 articles, 11 types discussed by 3 articles, 13 types discussed by 4 articles, 11 types discussed by 5 articles, and 40 types discussed by over 5 articles. The disease types discussed by less than 5 articles accounted for 73.7% of the total disease types. The above findings indicated that the types of the diseases treated by auricular acupoint sticking were numerous. Auricular acupoint sticking had been extensively applied in various clinics, and its therapeutic effects had been acknowledged extensively. But, the types of the diseases were comparatively scattered and some of them could be used for the exploratory treatment. Judging from the number of the articles about relevant diseases, the top 5 diseases were in turns insomnia (140 articles)^[8-9], obesity (118 articles)^[10-11], constipation (56 articles)^[12-13], dysmenorrhea (29 articles)^[14-15], and acne vulgaris (28 articles)^[16-17].

2.2 Analysis of the acupoint-pertained meridians

2.2.1 Advantageous disease types of singular auricular acupoint sticking

Totally, there were 195 articles about the treatment of diseases by singular application of auricular acupoint sticking, involving 74 types of diseases. Among them, there were totally 48 articles about the diseases of

neurological system, involving 11 types. Ranked in the order of the article number value, they were in turns insomnia (31 articles), post-operative pain (6 articles), chronic fatigue syndrome (2 articles), headache (2 articles), and cerebral concussion, facial spasm, facial paralysis, somnolence, vertigo, post-apoplectic sequela, and tumor pain respectively in 1 article. There were totally 38 articles about the diseases of digestive system, involving 12 types. Ranked in the order of the article number value, they were in turns constipation (16 articles), hiccup (4 articles), post-operative gastrointestinal flatulence (3 articles), pregnancy vomiting (3 articles), gastroparesis (2 articles), anorexia (2 articles), ulcerative colitis (2 articles), gallstone (2 articles), and also infantile diarrhea, cholecystitis indigestion, and irritable bowel syndrome respectively in 1 article. There were totally 15 articles about the diseases of metabolic system, involving 2 types. Ranked in the order of the article number value, they were in turns obesity (14 articles) and hyperlipemia (1 article). There were totally 14 articles about mental disorders, involving 6 types. Ranked in the order of the article number value, they were in turns neurasthenia (4 articles), depression (3 articles), smoking cessation (3 articles), Tourette syndrome (2 articles), and anxiety disorder and athletic syndrome respectively in 1 article. There were totally 14 articles about the diseases of dermal system, involving 7 types. Ranked in the order of the article number value, they were in turns acne vulgaris (5 articles), chloasma (4 articles), and rash, wart, urticaria, hyperhidrosis, and pruritus respectively in 1 article. There were totally 17 articles about the diseases of gynecological system, involving 8 types. They were in turns dysmenorrhea (9 articles), perimenopausal syndrome (2 articles), and also irregular menstruation, fibrocystic breast disease, pelvic inflammation, female sterility, premenstrual syndrome, post-abortion syndrome respectively in 1 article. There were totally 12 articles about the diseases of motor system, involving 9 types and including cervical spondylopathy (4 articles), and also lumbar inter-

vertebral disc displacement, ankle injury, low back pain, dislocation, stiff neck, joint pain, bone fracture, and Tietze syndrome respectively in 1 article. There were totally 21 articles about ENT diseases, involving 9 types. They were in turns myopia (7 articles), rhinitis (7 articles), and also oral ulcer, mouth ulcer, blink, amblyopia, blepharospasm, motion sickness, and deafness respectively in 1 article. There were totally 4 articles about the diseases of urinary system, involving 2 types, i.e. post-operative retention of urine (2 articles) and enuresis (2 articles). Besides, there were 12 articles involving the disease types of vomiting after radiotherapy and chemotherapy (3 articles), hypertension (3 articles), pharyngitis (2 articles), and vascular headache, asthma, cough, and chronic obstructive emphysema respectively in 1 article.

The advantageous disease category and secondary advantageous disease category were divided based upon the number of the articles on the treatment of diseases by auricular acupoint sticking, i.e. over 10 articles (including 10 articles) as the advantageous disease category, 5 to 9 articles (including 5 articles) as the secondary advantageous disease category. Please see Table 2 for the advantageous disease category and secondary advantageous disease category of auricular acupoint sticking.

As shown in Table 2, the advantageous disease types of singular auricular acupoint sticking referred to insomnia, constipation and obesity, with the effective rates higher than 85.0%. Within it, the effective rate was as high as 90.1% in the treatment of insomnia, indicating that auricular acupoint sticking has better clinical effect in the treatment of insomnia and has been extensively acknowledged. The secondary advantageous disease types were dysmenorrhea, myopia, allergic rhinitis, post-operative pain and acne vulgaris. The effective rate was as high as 94.2% for post-operative pain, and then for dysmenorrhea, indicating that singular auricular acupoint sticking has better therapeutic effect for analgesia.

Table 2. Advantageous types and secondary advantageous types of singular auricular acupoint sticking

Disease type	Article number	Number of total effective rate	Total case	Total effective rate (%)
Insomnia	31	1 886	2 093	90.1
Constipation	16	795	908	87.6
Obesity	15	698	811	86.1
Dysmenorrhea	8	677	721	93.9
Myopia	7	599	750	79.9
Allergic rhinitis	6	476	507	93.9
Post-operative pain	6	567	602	94.2
Acne vulgaris	5	217	246	88.2

2.2.2 Point selection for advantageous disease types in the treatment by auricular acupoint sticking

By searching the relevant data about the treatment of advantageous disease types by the singular application of auricular acupoint sticking, totally 33 ear points were used in the treatment of insomnia by auricular acupoint sticking. Among them, there were 11 ear points which were used over 10 times. They were in turns Shenmen (TF₄), Heart (CO₁₅), Subcortex (AT₄), Kidney (CO₁₀), Spleen (CO₁₃), Liver (CO₁₂), Sympathetic (AH_{6a}), Endocrine (CO₁₈), Occiput (AT₃), Stomach (CO₄), and Pancreas-Gallbladder (CO₁₁). In the treatment of insomnia, those points were used in combination and produced better therapeutic effects^[18-21]. In the relevant literature about the treatment of obesity by auricular acupoint sticking, totally 44 ear points were used. Among them, there were 18 ear points which were used more than 10 times, in turns Endocrine (CO₁₈), Spleen (CO₁₃), Stomach (CO₄), Shenmen (TF₄), Sanjiao (CO₁₇), Large Intestine (CO₇), Hungry Spot (TG₂), Lung (CO₁₄), Subcortex (AT₄), Kidney (CO₁₀), Sympathetic (AH_{6a}), Liver (CO₁₂), Mouth (CO₁), External Nose (TG_{1,2i}), Central Rim (AT_{2,3,4i}), Pancreas-Gallbladder (CO₁₁), Small Intestine (CO₆), and Abdomen (AH₈). In the treatment of obesity, those points were used in combination and produced better therapeutic effects^[22-25]. In the relevant literature about the treatment of constipation by auricular acupoint sticking, totally 25 ear points were used. Among them, there were 9 ear points which were used more than 10 times, in turns Rectum (HX₂), Stomach (CO₄), Kidney (CO₁₀), Sanjiao (CO₁₇), Spleen (CO₁₃), Subcortex (AT₄), Sympathetic (AH_{6a}), Lung (CO₁₄), and Large Intestine (CO₇). In the treatment of constipation, those points were used in combination and produced better therapeutic effects^[26-28].

3 Discussion

The number of clinical literature directly reflects the clinical concern on diseases and the application rates of the relevant therapeutic methods. The cases treated by the relevant therapeutic methods also reflect the sample sizes of the studies, i.e. the larger the sample sizes are, the higher the reliability of the relevant studies would be, and the lower the bias would be. The number of the articles on the clinical reports is aimed to indicate the application rates and popularization of auricular acupoint sticking in the treatment of certain diseases. In exploring the extensive scope of diseases treated by auricular acupoint sticking, the study is conducted by summarizing the number of the articles about the treatment by singular application of auricular acupoint sticking, to further analyze the advantageous disease types of auricular acupoint sticking, which will be helpful to guide further the clinical application of auricular acupoint sticking.

The literature in this study mainly comes from the Traditional Chinese Medical Acupuncture-moxibustion Information Databank. The Traditional Chinese Medical Acupuncture-moxibustion Information Databank is currently the statistical (intelligent) databank with maximal collection of acupuncture literature and longest time span of the literature in China^[29]. This databank was developed from the single computer information technology to the network computer information technology, from the plane data to the digital data, and from the singular summarization of the acupoints and therapeutic methods to the data supply in multiple functions and multiple aspects, helpful to the summary and analysis of the data and fully guaranteeing the reliability of the literature study on auricular acupoint sticking^[30-31].

In the analysis and summary of auricular acupoint sticking by applying the bibliometrics method in this study, it has been found that auricular acupoint sticking is more suitable for neurological diseases, metabolic diseases, digestive diseases, gynecological and dermal diseases. Comparatively, the recommended advantageous disease types are insomnia, obesity and constipation. The recommended secondary advantageous disease types are dysmenorrhea, myopia, allergic rhinitis, post-operative pain and acne vulgaris. In treatment of insomnia by auricular acupoint sticking, the points used at high frequencies are in turns Shenmen (TF₄), Heart (CO₁₅), Subcortex (AT₄), Kidney (CO₁₀), Spleen (CO₁₃), Liver (CO₁₂), and Sympathetic (AH_{6a}), in order to calm down the mind, coordinate yin and yang, and regulate Zang-fu organs, so as to reestablish the balance between yin and yang of the human body and hence improve sleep by eliminating the disorder of yin and yang. In the treatment of constipation by auricular acupoint sticking, Rectum (HX₂), Stomach (CO₄), Kidney (CO₁₀), Sanjiao (CO₁₇), Spleen (CO₁₃), Subcortex (AT₄), Sympathetic (AH_{6a}), Lung (CO₁₄), and Large Intestine (CO₇) are selected. Among them, Rectum (HX₂), Large Intestine (CO₇), Lung (CO₁₄), and Sanjiao (CO₁₇) are able to dredge the intestine, increase the peristalsis of the intestines, and regulate the dredging and descending action of the intestines. Sanjiao (CO₁₇), Subcortex (AT₄), and Sympathetic (AH_{6a}) have the effects to circulate qi, promote bowel movement, dredge the abdomen and expel heat. Spleen (CO₁₃), Stomach (CO₄) and Kidney (CO₁₀) are able to strengthen the spleen, benefit the kidney, replenish qi and promote bowel movement. All the points are combined to realize the goal to regulate Fu organs and promote bowel movement. In the treatment of obesity by auricular acupoint sticking, Endocrine (CO₁₈), Spleen (CO₁₃), Stomach (CO₄), Shenmen (TF₄), Sanjiao (CO₁₇), Large Intestine (CO₇), Hungry Spot (TG₂) and Lung (CO₁₄) are selected to strengthen the spleen and stomach, regulate qi, dissolve the turbidity, promote the lung in

its dispersing ability and remove dampness, so as to normalize water metabolism and realize the goal to reduce body weight.

In recent years, the clinical treatment by auricular acupoint sticking involves the diseases of sixteen systems, totally 152 types of diseases, indicating that auricular acupoint sticking has been used extensively in the domestic clinical services in the recent years. In the study on clinical disease spectrum and advantageous disease types by the large-size literature searching tool, the current situation about the application of auricular acupoint sticking can be reflected in certain degrees by the bibliometrics analysis and the statistical calculation of the mathematical formula, beneficial to the further guidance of the clinical application of auricular acupoint sticking and to the determination of the future research direction of auricular acupoint sticking. At the same time, the further performance of the mechanism research for explaining its functional principle, based upon the advantageous diseases of the clinical auricular acupoint sticking, is also a mission needed to start in the research field of ear points.

Conflict of Interest

The authors declared that there was no conflict of interest in this article.

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