

# Application and Pharmacological Evaluation of Acupuncture and Chaihu Shugan San in Facial Rejuvenation

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## Cheng *et al.*: Evaluation of Acupuncture and Chaihu Shugan San in Facial Rejuvenation

To explore the efficacy and safety evaluation of acupuncture for wrinkle removal and the use of the traditional Chinese herbal formula Chaihu Shugan San in facial rejuvenation. Based on the principles and modalities of acupuncture and Chaihu Shugan San for wrinkle removal, patients aged 25 y to 35 y were selected and divided into treatment groups according to their chosen modalities. For acupuncture, the patients were divided into three groups; patient group I (n=30), patient group II (n=30), and the control group (n=30). Similarly, for the Chinese herbal treatment, three groups were established with the same distribution. Chaihu Shugan San was administered with detailed monitoring of dosage and effects, focusing on improving liver qi, promoting blood circulation, and enhancing skin health. The outcomes were measured by comparing the status before and after treatment, as well as between the patient and control groups. In the acupuncture group, comparisons between pre- and post-treatment were significant, with  $p < 0.05$  and  $p < 0.01$ , respectively. Similarly, comparisons between the patient groups and control groups showed significant differences, indicating that acupuncture is effective in stimulating subcutaneous collagen regeneration, thereby reducing wrinkles. In the Chaihu Shugan San treatment group, intra-group comparisons before and after treatment were significant with  $p < 0.05$  and  $p < 0.01$ , indicating that this herbal formula effectively regulated patient's sleep, digestion, and overall physical balance, contributing to facial rejuvenation. Safety evaluations demonstrated that 90 % of the patients achieved a level 1 safety rating, proving that both traditional Chinese medicine and acupuncture treatments were safe and caused no irritation to the skin. Acupuncture and Chaihu Shugan San demonstrate significant efficacy in facial rejuvenation, effectively reducing facial wrinkles by addressing the root causes. These treatments delay wrinkle formation, regulate body balance, promote blood circulation, and stimulate collagen regeneration, thereby providing long-lasting wrinkle reduction and enhancing facial aesthetics. Furthermore, both treatments are safe, with minimal risk of adverse reactions, making them suitable for improving the quality of life for patients seeking facial rejuvenation.

**Key words:** Acupuncture, traditional Chinese medicine, facial rejuvenation, collagen, Chaihu Shugan San

In recent years, with the development of modern society and the improvement of living standards, facial skin care has become an essential part of daily life. Acupuncture, a traditional practice with deep roots in Chinese medicine, has long been regarded for its therapeutic benefits, particularly in facial maintenance<sup>[1,2]</sup>. Among these, acupuncture for wrinkle removal has gained widespread use by leveraging the stimulation of specific acupoints to unblock meridians and promote blood circulation, resulting in the reduction of wrinkles and overall facial rejuvenation. Traditional Chinese Medicine (TCM) also plays a crucial role in facial care by balancing and conditioning the body holistically.

One of the standout TCM formulas in this regard is Chaihu Shugan San (*Bupleurum* soothing gan powder)<sup>[3-6]</sup>, a well-established herbal compound known for its effects on regulating liver qi, promoting blood circulation, and maintaining skin health. Chaihu (*Bupleurum*, *Bupleurum chinense*), the primary herb in this formula, is particularly effective at regulating liver qi and alleviating stress, both of which are essential for reducing the formation of wrinkles. Bai shao (white peony root, *Paeonia lactiflora*) nourishes the blood and preserves yin, helping to moisturize the skin and maintain its elasticity. Chen pi (tangerine peel, *Citrus reticulata*) supports digestion and prevents stagnation, which

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may manifest as dull skin. Additionally, *chuanxiong* (*chuanxiong*, *Ligusticum striatum*) promotes qi and blood circulation, directly improving skin tone and reducing wrinkles by ensuring that the skin is well-nourished.

Modern pharmacological research has also demonstrated that these herbal components can promote skin rejuvenation through mechanisms such as antioxidation, anti-inflammation, and enhancing collagen production. For instance, Chaihu Shugan San has been shown to regulate collagen synthesis, which is essential for maintaining the skin's firmness and reducing fine lines. Furthermore, studies have indicated that these herbs not only delay the onset of aging but also play a role in improving overall skin vitality. This makes Chaihu Shugan San a highly effective treatment for facial aging.

Given that acupuncture and TCM treatments offer advantages over modern synthetic cosmetics—such as deeper, more systemic benefits such as their safety and efficacy deserve close examination. This paper aims to evaluate the principles and applications of acupuncture and Chaihu Shugan San in wrinkle removal, integrating modern pharmacological insights to assess their therapeutic value and safety.

Wrinkles are generally considered to be the obvious feature of aging skin and the most visual manifestation of it. Skin wrinkles, unlike skin texture, increase gradually according to age, and the factors that produce them are mainly lifestyle habits, ultraviolet radiation, and natural aging of the skin, which is based on the fact that the water content of the skin becomes less, which seriously affects the moods and the quality of life of some people who pursue the beauty of their appearance, but with the entry of acupuncture into the field of face maintenance, it has gradually alleviated the anxiety about the appearance of some people<sup>[7]</sup>.

In the classic work of the Motherland medicine, Su Wen-different methods and formulas suggested that the disease of contracture paralysis treatment should be microneedle. This statement explains that acupuncture treatment is carried out with tiny needles in separate areas of the body to achieve the effect of clearing the meridians and blood circulation and removing blood stasis. Acupuncture for the face is gentler on the skin than the cosmetic products available on the market.

In the field of acupuncture, microneedling is more suitable for facial areas with richer blood vessels and

shallow skin, and is also a gentler form of treatment with more dramatic results. Moxibustion, on the other hand, as a purely natural form of treatment, has the effect of preventing disease and health care, warming the menstruation and dispersing cold, and is often used to regulate illnesses. In Li Shizhen's compendium of *Materia medica* once mentioned moxa has a warm, bitter flavor, symbolizing purity and protection against toxins, as it flows through the twelve meridians of the human body. It can be proved that moxibustion is also important for facial care. So combining the two treatments can enhance the effect of wrinkle removal. According to the meridian science of Chinese medicine, microneedle has the effect of promoting the regeneration of subcutaneous collagen, microneedle into the facial skin will stimulate the skin's repair and self-healing ability, promote the skin dermis collagen proliferation, so as to achieve the purpose of skin replenishment of collagen, so as to eliminate the wrinkles produced by the facial skin. Moxibustion, as a universal therapy for health maintenance, can fully promote the blood circulation of the facial skin, help the absorption of facial wounds, enhance the immune function of the facial skin, increase the active substances in the blood of the human body, enhance the overall immune skills of the human body, so that the facial pores can open up, and better to achieve the purpose and efficacy of wrinkle removal<sup>[8,9]</sup>.

In the use of acupuncture for the removal of facial wrinkles, two main modalities are included, one is upper facial acupuncture and the other is middle and lower facial acupuncture<sup>[10,11]</sup>.

In the needling of the upper face, there are two main parts, as follows; in acupuncture for the inter-brow part of acupuncture, generally first from the centre of the brow to the head of the brow to unfold the acupressure palpation, in the constriction out of the acupoints, if the facial wrinkles are not obvious, insert the needle horizontally into the trigeminal nerve, targeting the wrinkles on the medial side. The insertion should reach a depth of 1 cm on the lateral side with horizontal acupuncture. Due to the strong stimulation, the needling technique needs to be on the gentle side. For deeper wrinkles between the eyebrows, horizontal needling is performed from the outer part of the frown muscle bulge and contracture to the entire muscle belly, about 2-3 cm, to achieve the effect of eliminating wrinkles.

Anterior head needling is done obliquely from the hairline of the forehead to the cranial vault tendon

membrane when wrinkles are not obvious. When wrinkles are obvious, it is necessary to increase the needling site, needling from the centre of the eyebrow to one-half of the forehead hairline. Since the muscles will be contracture in the area where wrinkles exist, it is necessary to needle diagonally, with the tip of the needle pointing upward and perpendicular to the wrinkles, and the depth of needling is 1 cm. When the wrinkles in the forehead area are deeper, it is necessary to select acupoints on the top of the head, take the needle to prick at the Zhengying acupoint of the cranial parietal tendon membrane, and prick along the scalp and the cranial parietal tendon membrane parallel to the position, in order to eliminate the wrinkles on the forehead.

Wrinkles appearing in the middle and lower parts of the face gradually increase with age, mainly due to the downward movement of fat in the cheek area, which affects the facial skin and causes symptoms such as sagging skin<sup>[12]</sup>. For the middle and lower parts of the face, the acupuncture modality is divided into three main parts, jaw area, cheek area acupuncture and zygomatic area acupuncture.

When starting acupuncture on the jaw area, it is important not to needle the deep length of the nasal groove directly, but to needle the trigeminal and mandibular nerves of the descending coracoid muscle, in order to improve the continuous contraction of the nasolabial folds, and because the descending coracoid muscle is along the trigeminal nerve, needling can achieve vasodilatory effects. The needles are applied to the descending coracoid muscle on both sides, with an upward slant of about 1 cm.

For the cheek area, the needling is usually done near the bite ligament, and the location of the bite muscle can be determined by having the patient make a molar bite. When the muscles around the bite are tight, a straight jab of about 1 cm is made on the outside of the bite's depression. For patients who want to improve the wrinkles on the cheekbones, press the biting muscle of the jawbone in a relaxed state, and use the needle to penetrate into the tense part of the muscle, stabbing the needle vertically or diagonally upward for 1-3 cm, to remove the wrinkles. The ligaments of the zygomatic bone are pricked with the needle, and the tense area of the muscle under the infraorbital hole can be felt by palpation using the mouth. One to three needles are inserted side by side at the same distance from the lower part of the Sibai point where the muscle is tense. For vasodilatory effects, needles are inserted near the eye sockets of the trigeminal

nerve, and the hard part of the Sibai point is needled at a depth of >1 cm. Avoid needling the bags under the eyes at the four white points because the skin is thin and bleeds easily.

According to the above acupuncture method can promote blood circulation of facial muscles, so that the skin can regenerate collagen, so as to achieve the purpose of removing facial wrinkles, so that the face has a better cosmetic effect.

## MATERIALS AND METHODS

### Theoretical foundations of Chinese medicine:

In Chinese medicine, the appearance of wrinkles on the face is generally related to the balance of yin and yang in the human body. Yin and yang are usually used to denote the two opposing and unifying aspects of things, which are both interdependent and dynamic. In Su Wen-Tian Yuanji Dalun, it is mentioned that there is yin and yang in the sky and yin on the earth. In Chinese medicine, the human body's organs and skin meridians and other activities are regarded as yin and yang mutual change into a balance of yin and yang when the normal physiological phenomenon, and yin and yang imbalance is a pathological phenomenon, the need for conditioning, so that the body to achieve a balance of yin and yang state, in order to reduce the wrinkles of the face, to achieve the purpose of removing the wrinkles. Therefore, Chinese medicine for facial maintenance is generally based on the overall concept of Chinese medicine as a guide, the use of diet, exercise and health care and other ways to regulate the yin and yang, qi and blood, and form spirit of the human body, so as to ensure good health, enhance the physical fitness of the human body to slow down the aging of the human body, so that people's face, skin and body can be improved, to maintain the natural health and beauty<sup>[13,14]</sup>.

Chaihu Shugan San is a TCM formula known for regulating liver qi, relieving stress, and promoting blood circulation-key factors in maintaining skin vitality and delaying aging. The formula contains several herbs with unique yet complementary effects. The main ingredient, Chaihu (*Bupleurum chinense*), is renowned for its ability to regulate liver qi, alleviate stress, and promote harmony between the body's exterior and interior, which is essential for enhancing blood circulation and maintaining skin health. Bai shao (*Paeonia lactiflora*) nourishes the blood and preserves yin, which helps to moisturize the skin and prevent the formation of wrinkles by keeping the skin soft and elastic. Chen pi (*Citrus*

*reticulata*) regulates qi and digestion, preventing the stagnation that could otherwise manifest in the skin as dullness or blemishes. Additionally, Zhi Ke (*Fructus aurantii*) supports the movement of qi, which is crucial for preventing bloating and stagnation that can negatively affect the skin's appearance. Xiang fu (*Cyperus rotundus*) focuses on regulating liver qi and relieving emotional stress, which are both important for reducing the tension that often contributes to wrinkle formation. *chuanxiong* (*Ligusticum chuanxiong*) promotes the flow of both qi and blood, ensuring that the skin receives adequate nourishment, thus improving skin tone and reducing wrinkles. Finally, Gan cao (*Glycyrrhiza uralensis*) harmonizes the actions of the other herbs, while its anti-inflammatory properties help to soothe the skin, preventing irritation. This formula is typically prepared as a decoction, with the standard dosage being around 200 ml of the liquid, taken orally twice daily for a period of 2-4 w, depending on the patient's condition. Through regulating qi and blood flow, improving liver function, and addressing emotional imbalances, Chaihu Shugan San effectively delays the onset of facial wrinkles, promotes a radiant complexion, and enhances overall skin health, offering a comprehensive approach to facial rejuvenation in TCM.

#### **TCM treatment:**

The use of Chinese medicine to develop health and beauty care for the face is mainly through the following four parts

In a person's daily life, diet is the material basis used for survival, and it is also the supply of nutrients needed by the skin. If the nutritional intake in the diet is adequate, the person's qi and blood will be very sufficient, more energetic, strong body, and thus the skin will become moist and shiny, reducing the production of wrinkles. If the nutritional intake in the usual diet is low, it will damage the appearance and make the skin wrinkles. For example, if the diet is too greasy, it will heat up and produce phlegm, and the ancients once said that the change of cream and sorghum is enough to produce the phenomenon of great healing. Therefore, the significance of diet in facial maintenance is very important, food, if eaten properly, can achieve the regulation of internal organs, coordination of yin and yang and replenish the purpose of qi and blood, in order to reduce the appearance of wrinkles. In the attention of dietary intake at the same time, should also be matched with

the appropriate medicinal diet, Chinese medicine believes that medical food is the same source, medicine and food are used together, in the food to add the appropriate medicinal herbs, you can achieve the dual role of medicinal and therapeutic food<sup>[15,16]</sup>.

Movement and the overall beauty of people are closely related to the famous Han Dynasty physician Hua Tuo once advocated active physical exercise, in surviving medical books, it is mentioned that the human body needs to engage in labor, but if this is not done, energy stagnates, disrupting circulation and preventing the elimination of toxins, making disease more likely to occur and in the inheritance of the ancient guide on the basis of the creation of sports therapy five birds play, the therapy is through the imitation of the tiger, deer, bear, ape, bird and other five kinds of animal activity posture running exercise, in order to achieve the efficacy of physical fitness. Tang Dynasty physician Sun Si invited in his book thousand gold formula said that if people engage in physical labor, no diseases can develop. These show that the ancients have recognized the important role played by the movement for human health. It can be seen that exercise helps human health, promotes blood circulation, improves metabolism, thus making the skin rosy and glossy, plump and elastic, and get a beautiful appearance.

In Chinese medicine emphasize health is the key step to delay aging, beauty and skin care. People as an organic whole, composed of internal organs and external organs, they both function differently, but also part of the whole, in their functional failure; it will be manifested from the facial skin. Therefore, attention needs to be paid to the regulation of yin and yang and the adjustment of the five organs, so that the function of each organ is normal and the qi and blood are sufficient, then aging will be delayed and the appearance will be more natural<sup>[17,18]</sup>.

The historical development of medicine is very long, which is a treasure summarized by many practical experiences, and Chinese medicine cosmetology has always occupied a place in Chinese medicine. Chinese medicine beauty focuses on the overall adjustment, both internal and external, and regulates the overall balance of human beings while ensuring the beauty of the face, starting from factors such as diet, sleep and mood, and unfolding the adjustment one by one, so as to achieve the purpose of beauty<sup>[19,20]</sup>.

#### **Sample collection and preparation:**

Before treating the patients, case inclusion and

exclusion criteria were set, where case inclusion criteria were wrinkles or deep wrinkles on at least one eyelid; women between 25 y and 35 y of age with disease duration of  $\leq 15$  y; healthy, with no prior history of infectious diseases and voluntary enrolment in the experiment and signing of an informed consent form.

Case exclusion criteria were not meeting the diagnostic criteria, excluding patients with progeria, idiopathic skin laxity and progeria syndrome; those with abnormal facial skin, history of trauma or surgery on the lower eyelids; previous treatment within a week and discontinuation of treatment and women who were breastfeeding or pregnant were also excluded.

In the safety evaluation of acupuncture and Chinese medicine for removing facial wrinkles, Ko *et al.*<sup>[21]</sup> investigated the wrinkle-removing remedies of Chinese medicine, defined the herbs commonly used in them as those with a citation frequency of more than 0.2, and evaluated their core properties to analyse the safety of the herbs. After analysis, these herbs can promote the healing of wounds, treat facial skin diseases, reduce the growth of wrinkles, and have the effect of nourishing the body with high safety. Li *et al.*<sup>[22]</sup> extracted Chinese herbal remedies for wrinkles, and utilized the calculation of the Q-statistic and the  $I^2$ -statistic to test the heterogeneity of the remedies, as well as based on the results of the use of clinic and the comparison between before and after the treatment, etc., it was concluded that the Chinese herbal remedies have a very significant effect in removing wrinkles. The effect of removing wrinkles is very significant and safe, and will not stimulate the patient's skin. He *et al.*<sup>[23]</sup> conducted a literature search in journal databases to list the modalities including the treatment of facial aging with Chinese herbal medicine alone or in combination with Chinese herbal medicine, and obtained the corresponding results through experiments, and conducted a meta-analysis based on the therapeutic effects and adverse reactions using Stata 13.0 software to conclude that Chinese herbal medicine can effectively improve the symptoms of skin aging, and although there are certain adverse reactions, the safety is generally high. Chen *et al.*<sup>[24]</sup> introduced the principle, process, and strategy of Chinese herbal medicine for treating wrinkles, and further researched on the new method of using Chinese herbal medicine for treating wrinkles, and according to the corresponding experimental way, it was concluded that the safety of Chinese

herbal medicine for treating wrinkles is higher, there are almost no side-effects, and the therapeutic effect is obvious, which provides the patients with the convenience and also provide new ideas in the field of treating skin aging. Lin *et al.*<sup>[25]</sup> searched the literature database to collect randomized controlled experiments of herbal baths for treating skin wrinkles and performed a meta-analysis by using RevMan 5.3 software. The mean difference will be used as an index of effect for measuring the data, and the ratio will be used as an index of effect for enumerating the data. A 95 % confidence interval will be provided for each effect, and the heterogeneity between the results of each study will be assessed by chi-square test, based on which the significance as well as the safety of herbal bath treatment can be concluded. Zou *et al.*<sup>[26]</sup> searched the electronic databases such as PubMed, Embase, and the Cochrane Library to obtain the treatment of skin aging with moxibustion related clinical randomized controlled trials. In order to complete the data synthesis and assess the risk of bias, the results of the experiments were evaluated using RevMan V.5.3 software, and it was concluded that moxibustion treatment has a significant effect on skin aging. Yang *et al.*<sup>[27]</sup> searched the databases and literatures such as PubMed, Cochrane Library, Embase, and Web of Science and the results were analyzed using a meta-analysis of controlled trials focusing on the effects of acupuncture on skin aging<sup>[27]</sup>. Acupuncture was found to significantly increase the Odd Ratio (OR): 2.90, 95 % Confidence Interval (CI): 1.78, similar to 4.75, and  $p < 0.001$ , and decrease the recurrence rate after treatment OR: 0.26, 95 % CI: 0.12, similar to 0.59, at which time  $p = 0.001$ , compared to conventional treatment. Liu *et al.*<sup>[28]</sup> used acupuncture treatment for wrinkle removal and 120 young and middle-aged female patients who met the diagnostic criteria were scratched as study subjects. The untreated patients were used as a blank control, and the intervention group was given acupuncture treatment, and the changes of wrinkles during the treatment were recorded, and according to the comparison of the before and after treatments, it was concluded that acupuncture was very effective in treating wrinkles. Ning *et al.*<sup>[29]</sup> utilized soluble hyaluronic acid microneedles as a carrier to help treat wrinkles appearing on the facial skin. Here, comfrey was mixed with soluble hyaluronic acid to prepare a product with sufficient mechanical strength for skin penetration, and its dosage was set in a controlled range during the manufacturing process, and it can be

concluded from the experiments that micro needling has a significant removal effect on facial wrinkles. Yan *et al.* reviewed Chaihu Shugan San and its bioactive constituents for treating facial wrinkles with bioactive components<sup>[30]</sup>. More specifically, the modulation of herbal formulas and bioactive components and their molecular mechanisms were investigated, and controlled experiments on the treatment of wrinkles by herbal medicines were carried out, and the results showed that herbal medicines could realize the removal of wrinkles. In order to avoid the discomfort of the patients during the treatment of wrinkles, herbal formulations with six natural substances as the main components were determined using High Performance Liquid Chromatography-Electrospray Mass Spectrometry (HPLC-ESI-MS) and according to the results, the herbs were found to be safer and more curable<sup>[31]</sup>.

### **Wrinkles and their causes:**

With age, the human body will gradually get older, and skin aging is often the earliest symptom, aging phenomena including sagging, wrinkles, and discoloration, etc., mainly due to the perennial exposure of the facial skin, often preceded by other parts of the aging. Among them, skin wrinkles, mainly refers to the changes produced after the degradation of the morphological structure of dermal collagen fibres, and the fold lines caused by the movement of limb joints and the long-term pulling of local subcutaneous muscles on the reduction of subcutaneous fat and the lack of water<sup>[32,33]</sup>.

There are often characteristic bumps and grooves on human skin, and these irregular lines, commonly known as dermatoglyphics, are genetically determined in humans. Wrinkles, on the other hand, form in adulthood, and unlike skin texture, wrinkles are one of the manifestations of skin aging. A wrinkle can be indicated when a distinct line can be obtained by stretching the skin along the direction perpendicular to the axis of the line under the skin. It is possible to group the lines on human skin in a dark-to-light manner; level I is the depth of the lines dividing the skin surface into long diagonal squares of about 20 to 100 nm. Level II represents lines that intersect obliquely with the base line and subdivide the surface into triangles or trapezoids at a depth of 5 to 40 nm. Level III is the line between the cells of the stratum corneum is said to have a depth of 0.5 nm. Usually the first level two lines can be seen by the human eye, while the third and four level cannot

be observed with the human eye, but these lines will usually be thickened and widened as they age, gradually turning into wrinkles, shallow wrinkles reach a depth of 0.2 to 1 ml, and deep wrinkles are generally >1 ml.

Human facial aging usually has multiple causes, which are mainly categorized into internal and external causes. Internal causes are mainly hereditary factors, hormones, oxidative stress and pregnancy and systemic diseases, etc. External causes are mainly related to sunlight exposure, environmental pollution and lifestyle. In addition, facial wrinkles are also related to some facial expression muscles, as they are mainly close to the skin and subcutaneous tissue, when the facial muscles contract, the skin will form several wrinkles in the direction of contraction and it is the main reason for the long-lasting, repetitive and forceful expansion and contraction of the expression muscles. Normally, subcutaneous fat supports the skin, but the volume of adipocytes decreases with age, resulting in a loss of support in the lower dermal reticular layer, causing skin laxity and the formation of facial wrinkles<sup>[34]</sup>.

According to the location of wrinkle growth can be divided into follows; along the horizontal line between the eyelids and the lower end of the nose, the face can be divided into three parts; upper face wrinkles, middle face wrinkles and lower face wrinkles.

A vertical line was drawn along the outer eye socket to divide the face into two parts, namely, the medial zone wrinkles and the lateral zone wrinkles.

According to the cause of wrinkle formation, there are four types; natural, dynamic, gravitational and mixed. Natural mainly related to the accumulation of subcutaneous fat, usually located in the neck of infants, and physiological skin lines in the same direction, due to aging, skin sagging, wrinkles gradually deepen. Dynamic is caused by repeated and prolonged contractions of the expression muscles, which are attached to the skin. During contraction, the skin forms wrinkles at right angles, which deepen with age. Gravitational are wrinkles created due to gravity on top of skin laxity. Mixed is caused by a variety of reasons, and the causes are more complex.

## **RESULTS AND DISCUSSION**

Semi-quantitative point's method was used to develop the treatment scoring criteria, which was shown in Table 1. The treatment criteria can be obtained as basic cure means no or a small amount of

fine lines, deep wrinkles are not visible, no sagging of the lower face, and the wrinkle reduction index is  $>0.9$ . Apparent effect refers to a small amount of fine lines visible, deep wrinkles shorten; the range becomes smaller, face sagging get link, wrinkle drop index between 0.6 and 0.9.

When the wrinkle removal happens to be improved, obvious fine lines, deep wrinkles length is slightly shortened, face sagging is reduced, the wrinkle reduction index is between 0.3 and 0.6.

Ineffective is defined as no improvement in the degree, extent and facial sagging of wrinkles and a wrinkle reduction index of  $<0.3$ .

The safety rating scale includes grade I, grade II, moderately safe and severely adverse. Grade I indicates safety with no adverse effects. Grade II is relatively safe, with adverse effects that do not require treatment and do not interfere with therapy. Grade III is moderately safe, with significant adverse effects that require treatment and grade IV is serious adverse and requires termination of the experiment.

According to the above acupuncture mode of acupuncture treatment for patients with facial wrinkles, in the treatment, take the lying position, to the applicator and the patient's face using alcohol cotton balls to carry out disinfection, to ensure the hygiene of the needle. When massaging, the hand should go from one point to another, the hand should not leave the skin, and the movement should be consistent and repeated about three to five times. At the end of the massage, a 0.25 mm $\times$ 30 mm needle was selected to carry out acupuncture on the patient's face, with a frequency of once every other day, three times a week, for about 4 w in a row. After completing the treatment, the roughness of the

skin and the circumference of the skin elasticity were recorded according to the relevant observation and measurement methods, and the software was used to develop statistics to compare the degree of change before and after the treatment, and the roughness of the skin was shown in Table 2. It can be observed that the control group did not have much improvement in the skin because of routine care, while there was a significant difference between the patients before and after the use of acupuncture therapy, and the roughness of the skin was greatly improved. The statistical result after treatment was  $3.01\pm 0.42$ , which proves that acupuncture therapy has a certain sway on removing facial wrinkles and can meet the demand for facial improvement.

Table 3 shows the skin elasticity dimensions, and it can be observed that the pre-treatment statistics of the control group was  $39.42\pm 5.56$ , and the post-treatment was  $39.32\pm 5.31$ . The skin elasticity circumference was significantly improved, which once again proves the value of the use of acupuncture therapy in facial rejuvenation studies.

Table 4 shows the effect of acupuncture treatment, according to the above data, the comparison between the patient group before and after treatment is  $p<0.05$ ,  $p<0.01$ , and the comparison between the patient group and the control group is  $p<0.05$ ,  $p<0.01$ , which indicates that the degree and range of wrinkles of the patient I group before and after the treatment have been significantly improved, and the depth and length of wrinkles of the patient II group have also been significantly improved after the treatment, which proves that acupuncture can significantly shorten the length of deep wrinkles, improve facial wrinkles, and achieve the purpose of removing wrinkles.

**TABLE 1: TREATMENT SCORING METHOD**

Item	0 points (none)	1 point (mild)	2 points (moderate)	3 points (severe)
Wrinkle degree	No deep wrinkles	Lighter wrinkles	Deeper wrinkles, less than three deep wrinkles	Deep and coarse wrinkles, with three or more deep wrinkles
Distribution range	No deep wrinkles	Deep wrinkles within the first and second vertical lines and not reaching the second vertical line	Deep wrinkles within the first to third vertical lines and not reaching the third vertical line	Deep wrinkles are within the first to fourth vertical lines, but not to the fourth vertical line
Deep wrinkle length	No deep wrinkles	Deep wrinkles within the first and second vertical lines and not reaching the second vertical line	Deep wrinkles within the first to third vertical lines and not reaching the third vertical line	Deep wrinkles within the first to fourth vertical lines, but not reaching the fourth vertical line
Lower face sagging	No sagging	Sagging skin and no cheek-eye groove	Skin is loose and sagging, mild cheek-eye groove	Skin is obviously loose and sagging, severe buccal eyelid grooves

**TABLE 2: SKIN ROUGHNESS**

Group	Number of cases	Before treatment	After treatment
Patient 1	30	3.14±0.55	2.77±0.43
Patient 2	30	3.39±0.62	1.89±0.31
Control	30	3.15±0.56	3.01±0.42

**TABLE 3: SKIN ELASTICITY CIRCUMFERENCE**

Group	Number of cases	Before treatment	After treatment
Patient 1	30	39.56±5.57	38.97±5.46
Patient 2	30	39.48±5.54	36.78±5.32
Control	30	39.42±5.56	39.32±5.31

**TABLE 4: ACUPUNCTURE TREATMENT EFFECTS**

Group	Treatment	Wrinkle degree	Deep wrinkle length	Scope	Moxibustion
Patient 1	Before	2.12±0.52	2.00±0.89	2.42±0.58	1.27±0.67
	After	1.85±0.73	1.81±0.80	2.23±0.76	1.08±0.69
Patient 2	Before	2.04±0.34	2.11±0.64	2.41±0.50	1.07±0.38
	After	1.78±0.75	1.37±0.69	2.22±0.64	1.00±0.38
Control	Before	2.12±0.60	2.00±0.71	2.20±0.58	1.32±0.75
	After	1.96±0.45	2.08±0.70	2.04±0.73	1.40±0.65

According to the above concept of Chaihu Shugan San treatment for the wrinkles of the patients to start the treatment, so that the patients from the diet, exercise and sleep and other aspects to improve, to achieve the purpose of removing wrinkles, the effect of Chaihu Shugan San treatment as shown in Table 5. Analysing the data in the table, it can be seen that the intra-group comparison before and after treatment is  $p < 0.05$ ,  $p < 0.01$ , and the comparison between the patient group and the control group is  $p < 0.05$ ,  $p < 0.01$ , indicating that the patients have obvious improvement after the treatment, especially the improvement of the patient's complexion and sleep in the patient group is obvious. It proves that TCM can regulate the whole human body, change the overall lifestyle, regulate the function of each organ, and make the human body reach the state of balance of yin and yang.

The effect of Chinese medicine to remove wrinkles was shown in Table 6, it can be concluded that the effect of using Chinese medicine to remove wrinkles is very significant, will the length of the wrinkles and growth range of the patients have improved. The length of deep wrinkles before and after the treatment of the two groups of patients was  $2.15 \pm 0.69$  and  $1.38 \pm 0.71$  respectively, and the sagging was  $1.09 \pm 0.36$  before the treatment, and  $1.00 \pm 0.35$

after the treatment. The wrinkles on the face of the patients were reduced and lightened, and the sagging was reduced, so that the face of the patients reached the state of natural gloss, which was in line with the patient's needs of fading wrinkles, and the face of the patients was more natural and rosy.

From the above analysis and comparison of treatment results, it can be learned that acupuncture treatment has a certain value for the facial maintenance aspect, which is divided into three parts; acupuncture therapy and Chinese medicine is gentler on the skin than synthetic cosmetics on the market, and will not cause more serious stimulation of the skin, making skin problems more serious. Acupuncture therapy mainly through the acupuncture points and meridians to stimulate, regulate the function of human qi, blood and internal organs, accelerate the skin in the proliferation of collagen, so as to achieve the effect of wrinkles, will not cause too much damage to the facial skin, in line with today's people on the demand for safe and natural beauty.

When using acupuncture and Chinese medicine to remove facial wrinkles, not only can eliminate the fine lines on the patient's face, but it can also adjust the patient's body, improve the patient's sleep treatment and endocrine aspects of the patient, reduce the patient's stress, regulate the patient's mood, and



reduce the production of wrinkles from the root cause. Compared with cosmetics and modern medical treatments, acupuncture treatment is more targeted to the root cause of wrinkles, which can make the effect of treatment last longer and more stable, and will not cause repeated recurrence, which is in line with the market demand.

The treatment is targeted. Acupuncture and Chaihu Shugan San treatment of facial wrinkles, usually in a full understanding of the patient's basic situation to carry out treatment, for the patient's own situation and physical condition of the targeted development of treatment programs, according to the patient's wrinkles, the location of the depth of wrinkles, and the state of the skin to carry out the treatment, more targeted than some of the modern medical practices, can quickly remove wrinkles, to provide the effect of the treatment.

The safety indices of acupuncture and TCM in removing wrinkles from patients are shown in fig. 1. Divided into four levels from 1-4, the boxes indicate the distribution of the maximum and minimum values of each safety level at the same number of test days, and the centre axis indicates the mean value. It can be seen that acupuncture and Chaihu Shugan San in the treatment of wrinkles in the process of treatment, the emergence of serious adverse reactions less, most of the adverse reactions are not too big, the safety

level for the first level of the proportion of 90 % to do good, the second level is also only 50 % of the role, proving that the acupuncture and Chaihu Shugan San way is more gentle, high security, will not cause irritation or damage to the patient's skin, but also then adjust the wrinkles at the same time to adjust the patient's own will also regulate the patient's own physical condition while adjusting the wrinkles, and the effect of removing wrinkles is better.

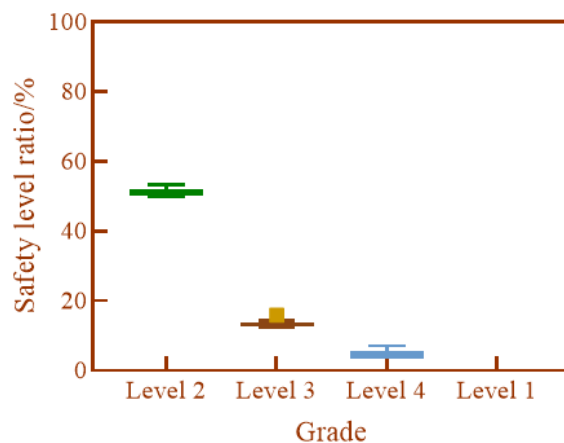
In this paper, the effect and safety of removing wrinkles by acupuncture and TCM are studied, and it can be concluded that acupuncture and TCM can effectively treat patient's wrinkles, improve the length and range of wrinkles, reduce the number of roots of wrinkles, and prevent the growth of wrinkles from the root cause, and the Chaihu Shugan San can regulate the functions of the organs inside the body while treating wrinkles, so that the human body can reach the balance of yin and yang, and the treatment effect can be effectively sustained, and the treatment effect is remarkable. The treatment effect can be sustained effectively, and the treatment effect is remarkable. At the same time, the safety index of acupuncture and TCM treatments is high. According to the records of treatment results, 90 % of the patients have a safety level of one, which proves that most of the patients do not have any obvious side effects of acupuncture and TCM methods, and that they have a high level of safety.

**TABLE 5: EFFECTS OF CHINESE MEDICINE TREATMENT**

Group	Time	Complexion	Diet	Sleep	Urine and stool
Patient 1	Before treatment	0.88±0.77	0.69±0.84	1.19±0.90	1.00±0.94
	After treatment	0.58±0.58	0.50±0.58	0.77±0.83	0.69±0.62
Patient 2	Before treatment	0.70±0.78	0.81±0.74	0.89±0.75	1.19±1.04
	After treatment	0.45±0.80	0.67±0.73	0.45±0.70	0.89±0.93
Control	Before treatment	1.00±0.83	1.00±0.65	1.00±0.73	1.00±0.72
	After treatment	1.00±0.93	1.00±0.81	1.00±0.70	1.00±0.76

**TABLE 6: ANTI-WRINKLE EFFECT OF CHAIHU SHUGAN SAN**

Group	Time	Wrinkle length	Wrinkle degree	Scope	Moxibustion
Patient 1	Before treatment	2.10±0.55	2.10±0.83	2.46±0.53	1.29±0.70
	After treatment	1.82±0.69	1.79±0.78	2.25±0.79	1.06±0.66
Patient 2	Before treatment	2.01±0.37	2.15±0.69	2.45±0.53	1.09±0.36
	After treatment	1.76±0.73	1.38±0.71	2.20±0.68	1.00±0.35
Control	Before treatment	2.11±0.59	2.01±0.76	2.21±0.59	1.34±0.76
	After treatment	2.01±0.48	2.10±0.70	2.06±0.74	1.41±0.67



**Fig. 1: Safety index**

Note: (■): Level 1; (■): Level 2; (■): Level 3 and (■): Level 4

Although the effectiveness of acupuncture for wrinkle removal and Chinese medicine for facial rejuvenation has been validated, and the safety index is ensured, the current study primarily involved patients aged 25 y to 35 y, who were in the early stages of wrinkle formation and did not exhibit significant facial sagging. Therefore, the efficacy of these treatments for more severe facial sagging in older individuals remains uncertain and requires further confirmation. Future research should include older age groups with more pronounced facial aging to better evaluate the treatment's effectiveness across different stages of aging. Additionally, there is currently no uniform standard for evaluating wrinkle severity and efficacy, which limits the standardization and scientific rigor of the research. To address this, future studies should develop consistent evaluation criteria to enhance the comparability and reliability of the results. Integrating modern pharmacological research, the mechanisms by which Chinese medicine contributes to facial rejuvenation are becoming clearer. Chinese herbal components have demonstrated significant anti-aging effects through pathways such as antioxidant activity, anti-inflammatory responses, and collagen synthesis. Modern pharmacological data, including *in vitro* and animal studies, support these findings, providing a robust scientific basis for the use of Chinese medicine in skin anti-aging.

In terms of clinical application, this study has included specific data analysis on the improvement of skin conditions, such as changes in wrinkle depth and overall skin state. Combining this with clinical research will further explore the stability and long-term effects of Chinese medicine, confirming its advantages in practical applications.

Furthermore, comparing Chinese medicine treatments

with other common anti-aging therapies, such as modern cosmetics and laser treatments, highlights the advantages of Chinese medicine in terms of safety and long-term effectiveness. Chinese medicine not only addresses surface-level skin issues but also offers comprehensive benefits through internal regulation and external nourishment, improving overall patient health.

Looking ahead, there is considerable potential for further development of Chinese medicine in facial rejuvenation. Future research could focus on component separation, in-depth studies of mechanisms, and other areas to enhance the application of Chinese medicine in facial rejuvenation. This will help advance the use of Chinese medicine in modern medicine and provide more scientific evidence and practical guidance for anti-aging treatments.

#### **Funding:**

This work was supported by Medical Health Science and Technology Project of Shandong Provincial Health Commission (No: 202316011080).

#### **Conflict of interests:**

The authors declared no conflict of interests.

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This article was originally published in a special issue, "Clinical Advancements in Life Sciences and Pharmaceutical Research" Indian J Pharm Sci 2024;86(5) Spl Issue "273-283"