

Original Article

Cosmetic Acupuncture for facial skin rejuvenation – Study Protocol of a Randomized Controlled Trial

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ABSTRACT

Background: Healthy, youthful skin has a significant impact on confidence and self-esteem. The oil-to-water ratio is crucial for achieving radiant skin, but factors such as aging, lifestyle, and environmental influences can disrupt this balance, resulting in dullness and premature aging. As a result, many individuals seek natural, non-invasive treatments such as cosmetic acupuncture, which, despite its roots in traditional Chinese medicine, lacks substantial scientific validation. This study explores the potential of cosmetic acupuncture to enhance facial aesthetics. **Aims and Objectives:** This study evaluates the effectiveness of cosmetic acupuncture on facial skin hydration and oil content in women aged 20–35. The primary objective is to measure changes in skin water and oil content using a Facial Skin Analyzer. Secondary objectives include evaluating subjective improvements in skin appearance using the Patient's Aesthetic Improvement Scale (PAIS) and the Global Aesthetic Improvement Scale (GAIS). **Methods:** Sixty women from the International Institute of Yoga and Naturopathy Medical Sciences, Chengalpattu, were randomly assigned to either the Facial Cosmetic Acupuncture (FCA) group and control group (n=30). The FCA group 30-minute treatments twice a week, while the control group did not receive any intervention. Measurements were taken at baseline, weekly during the intervention, and four weeks post-intervention. **Results:** The FCA group showed significant improvements in skin hydration compared to the control group, with more water and less oil content. Treatment efficacy varies with age. Subjective assessments using PAIS and GAIS confirmed these findings, with participants show moderate to significant improvements in their skin appearance. **Discussion:** Cosmetic acupuncture effectively enhances skin moisture and balance. Potential mechanisms include increased collagen synthesis, vasopressin modulation, improved lymphatic drainage, and aquaporin-3 activation. The combination of empirical data and subjective assessments provide a comprehensive analysis of FCA's impact on skin health. **Conclusion:** FCA is non-invasive method for improving skin hydration and oil balance. This study emphasizes the need for further research to investigate long-term effects and optimize treatment protocols, while supporting FCA as a viable cosmetic therapy. Given the growing interest in non-invasive cosmetic procedures, these findings are pivotal for promoting skin health and well-being.

Key words: Facial Cosmetic Acupuncture, Facial hydration, water and oil balance, non-invasive treatments, Skin health.

Radiant, healthy-looking skin is essential for personal confidence and self-worth. Maintaining the youthful appearance of facial skin necessitates a delicate balance of oil and water content. However, various environmental stressors, lifestyle choices, and aging can disrupt this balance, resulting in premature aging, dissatisfaction, and moisture loss. Beautiful skin reflects overall health and well-being, which improves social and professional interactions. When water and oil levels in facial skin are properly balanced, the skin appears healthy, plump, and resilient. Conversely, imbalances can result in dullness, acne, and premature aging, compromising the skin's natural barrier and increasing vulnerability to external irritants and

stressors. Acupuncture is a Chinese method of treating pain and illness that involves inserting special thin needles into the skin in particular parts of the body. Cosmetic acupuncture, also known as facial acupuncture, is acupuncture that focuses specifically on the patient's aesthetic condition, which is usually related to the face. Cosmetic Acupuncture is also known as Facial Rejuvenation Acupuncture or Facial Revitalizing Acupuncture which is a non-invasive method and a holistic approach by needling Acupuncture points on the face, neck and ear. This process can improve the flow of qi, blood circulation, lymphatic drainage, and oxygen to the cells while slowing the aging process.. Puncturing the needles involves stomach, large intestine, triple warmer, conception

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vessel (REN), governing vessel (DU), urinary bladder meridians on the face [1].

Facial Cosmetic Acupuncture Intervention: Facial cosmetic acupuncture is a therapeutic method that involves needling specific areas of the face and neck but most commonly along the stomach, large intestine, triple warmer, conception vessel (REN), governing vessel (DU), urinary bladder meridians used for Facial skin Rejuvenation. The treatment was given twice a week for 4 weeks, with the Sujok needles retained for 30 minutes each time.

Benefits of Cosmetics Acupuncture: According to a 1996 report in the International Journal of Clinical Acupuncture 90% of 300 cases treated in China with Cosmetic Facial Acupuncture had significant positive possible effects after just one course of treatment. The effects include improvement in skin texture, coloring, increased elasticity, reduction of wrinkles, overall rejuvenation.

Experience the transformative benefits of cosmetic acupuncture, a holistic approach that promotes overall wellness and radiant skin. This technique improves lymphatic drainage, increases fluid circulation, detoxifies, and reduces edemas by targeting acupuncture points on the stomach, triple warmer, large intestine, and urinary bladder. This process not only rejuvenates your skin but also improves its viscosity, leading to a softer, brighter, and more vibrant complexion. Cosmetic acupuncture helps to restore organic balance by optimizing hydration and moisture levels, contributing to a refreshed and balanced facial appearance. Additionally, it effectively addresses hormonal imbalances, helping to clear hormonal acne and balance both overly dry and excessively oily skin. Embrace the natural path to a healthier, glowing you with cosmetic acupuncture.

Channels Distribution on Face [8]

In the realm of facial acupuncture, understanding the interplay of Yang channels is crucial for achieving effective results. All Yang channels converge at the head and face, the primary concentration points for Yang energy. While the three-hand Yang channels ascend towards the head, the three-foot Yang channels focus their energy towards the feet. Sagging and wrinkles on the face are frequently caused by an excess of Qi descending through the three-foot Yang channels. Notably, points on the face are located more superficially because Yang energy is closer to the surface here, with CV 24 being the only Yin point on the face. This superficial placement produces faster results because the stimulation of these points is more immediate. This concept is consistent with the River Theory, which states that smaller rivers (or channels) flow faster than larger bodies of water.

As a result, facial acupuncture stimulates the Yang channels more acutely, resulting in faster and more noticeable results. The 12 divergent channels converge at the superficial Yang channels. Divergent meridians all go upward mostly

passing through the heart in the trunk. Giovanni Maciocia's Foundations of Chinese Medicine discusses how the Yin divergents interact with their Yang-paired channels [9]. This is another way in which the Yin energy reaches and supports the face. This is another way in which acupuncture is an "antigravity technique." On the face it is a local treatment that supports the face at specific points allowing the skin to rejuvenate.

The purpose of my research is to raise awareness among people about the benefits of Cosmetic Acupuncture to improving the facial appearance rather than unnatural procedures that harm the human body. I chose this topic to scientifically prove and raise awareness for people who seek Botox injections, Cosmetic fillers, and other invasive procedures to enhance their facial skin appearance since Cosmetic Acupuncture is simple, scientific, non-invasive, non-surgical, cost-effective treatment that is also quite natural.

METHODOLOGY (MATERIALS & METHODS)

Subject selection for this study includes students, doctors, and staff from the International Institute of Yoga and Naturopathy Medical Sciences and Chengalpattu Government Medical College and Hospital. Participants will be chosen using specific inclusion and exclusion criteria.

Inclusion criteria mandated that subjects had to be female, aged 20 to 35 years, willing to participate in the study, and exhibiting characteristics such as dry or oily skin, poor facial tone and texture, and suboptimal muscle tone. Additionally, participants were required to have a sufficient level of reading comprehension to complete questionnaires independently and could not have participated in other clinical studies in the month preceding this study, nor could they engage in any other clinical research during the study period.

Exclusion criteria included individuals with chronic skin diseases, bleeding disorders, or drug-induced acne. Pregnant and lactating women were also excluded, as were those who had received topical steroids, Botulinum toxin injections, or cosmetic acupuncture within the six months prior to the study. Furthermore, individuals with a history of facial skin hypersensitivity, pacemakers, and subjects with uncontrolled hypertension, diabetes mellitus, severe migraines, or other significant health issues were also excluded from participation.

Randomization: All subjects were randomly allocated to either a study group or a control group using a computerized randomization process with a 1:1 allocation ratio. This method ensured that all participants had an equal chance of being assigned to either group, thereby reducing selection bias. The randomization was conducted using a clinical trials-specific software program that generated a random sequence of numbers corresponding to each participant's unique identification code.

Prior to randomization, participants were registered and assigned IDs to maintain confidentiality. The generated sequence was then securely stored and accessible only to the research team members responsible for allocation. Following the completion of participant enrollment, the allocation was revealed, and subjects were informed of their group assignment.

Intervention: This study will include 60 subjects ranging in age from 20 to 35. The subjects will be recruited from the International Institute of Yoga and Naturopathy Medical Sciences, and Government Chengalpattu Medical College and Hospital, Chengalpattu – 603001.

After obtaining informed consent, participants (n = 60) who meet the inclusion and exclusion criteria will be randomly assigned to one of two groups: Facial Cosmetic acupuncture group (n = 30) and Control group (n = 30). The Facial Cosmetic acupuncture group will receive Facial Cosmetic acupuncture therapy in a lying position for 30 minutes per day, 2 sittings per week, with the selected points being EX 1, UB 2, ST 3, REN 24, LI 20, TW 23. The control group will be under observation, and no treatment will be given.

Statistical Analysis

The statistical analysis for this study will be conducted using SPSS Descriptive statistics, including mean, standard

deviation, and frequency distributions, were used to summarize the demographic and baseline characteristics of the participants.

To assess the effectiveness of cosmetic acupuncture on facial skin hydration and oil content, paired t-tests were used to compare pre- and post-treatment measurements within the study group. Independent t-tests will be used to assess differences in skin hydration and oil content between the study and control groups.

For subjective assessments, data collected using the Patient's Aesthetic Improvement Scale (PAIS) and the Global Aesthetic Improvement Scale (GAIS) is analyzed graphically.

All analyses were statistically significant, with p-values < 0.05. Additionally, effect sizes are calculated to estimate the magnitude of the treatment effects. All statistical tests will be conducted with a two-tailed approach to ensure comprehensive evaluation of the outcomes.

Ethical consideration: A written informed consent will be obtained from all the participants after describing in detail about the intervention.

Withdrawal Criteria: All subjects are free to withdraw from the study at any time, for any reason, specified or unspecified, and without prejudice to further treatment.

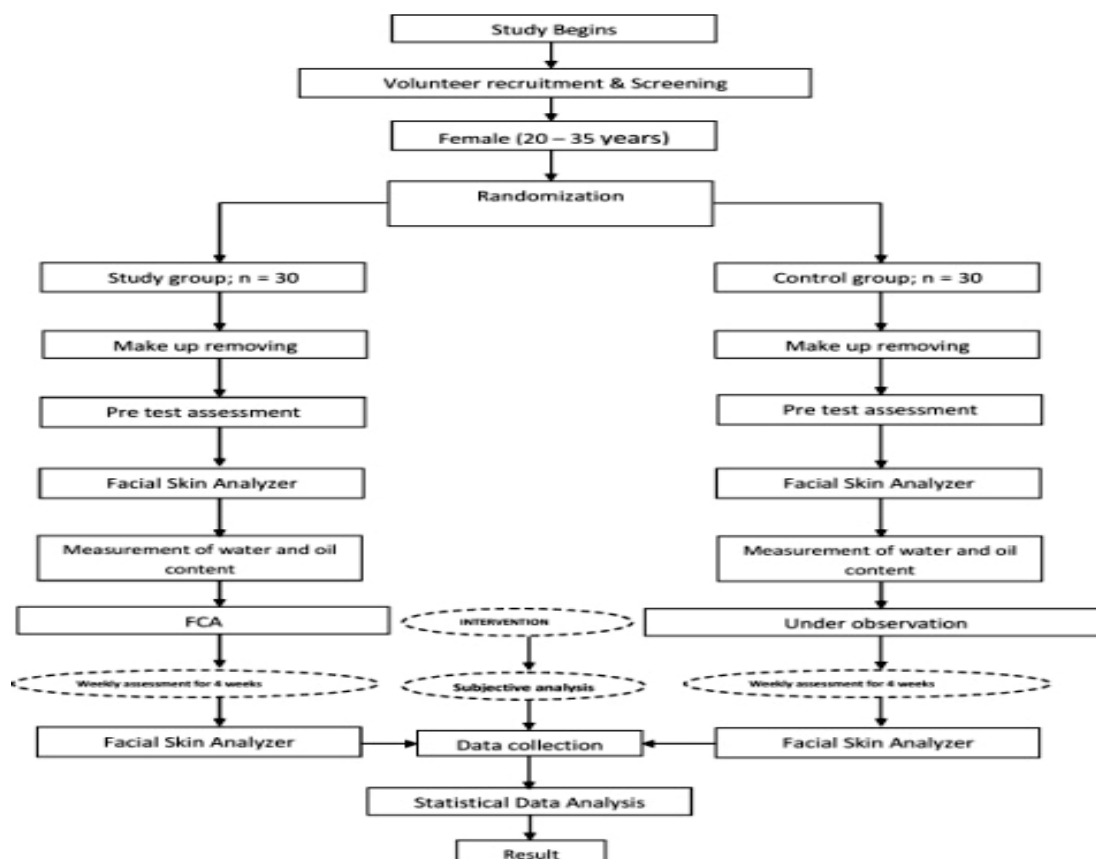


Fig 1 – Trial profile

Table 1: Location of selected acupuncture points [12]

S.NO:	POINTS NAME	LOCATION
1	Yintang (EX.1)	On the center of glabella, midway between the medial ends of the 2 eyebrows
2	Cuanzhu(UB 2)	At the inner end of the eyebrow, directly above the medial canthus of the eye
3	Juliaoxue (ST 3)	Directly below the middle of the eye at the level with the inferior border of the ala nasi
4	Yingxiang (LI 20)	Mid-point on the line drawn horizontally from the highest point of ala nasi towards nasolabial groove on the opposite side
5	Chengjiang (REN 24)	Center of the mento labial sulcus
6	Sizhukong (TW 23)	Lateral end of the eyebrow

Outcome measures will be determined at baseline (before the intervention), every week at the end of the intervention, and four weeks after completion of the intervention.

Outcome measures: Primary and secondary outcomes will be assessed by measuring the percentage of oil and water content of face through Facial Skin Analyzer at the end of every week and subjective assessment after the full course of treatment through the Likert's scale analysis – Patient's Aesthetic Improvement Scale (PAIS) and Global Aesthetic Improvement Scale (GAIS) in both the groups.

DISCUSSION

Facial Cosmetic acupuncture (FCA) has been used as a Botox alternative Traditional Chinese Medicine as a for more than thousand years and is gaining popularity among celebrities today. However, the Journal of Acupuncture lacks enough research studies to fully conclude Cosmetic Acupuncture's skincare benefits [2]. Facial Cosmetic Acupuncture has no such adverse effect and it is very much safer, less invasive, easy and cheaper than Botox. Cosmetic Acupuncture works primarily by promoting detoxification. It works internally to improve overall health while also enhancing the appearance of skin by balancing water and oil content through proper qi and blood circulation, resulting in softer, bright and more vibrant skin "Outer beauty is the result of inner balance" [1].

Skin hydration is necessary for maintaining healthy skin. The retained water in the skin is primarily controlled by the outer layer of skin, known as the Stratum corneum [5]. The dermal layer of the skin contains collagen, elastin, sebum and blood vessels. The hypodermal layer of skin contains connective tissue. These layers are responsible for skin to become wrinkled, oily, and dry and loss of elasticity. FCA works by causing micro-trauma to the cells, which stimulate the injury repair system (natural healing process), resulting in collagen production, blood circulation, and proper qi circulation. Water and oil in the skin hydrates and nourishes. If either is impaired or produced in excess, facial skin become dull, rough, lacklustre and blemished [6]. As a result, keeping the skin's water and oil content balanced is critical for maintaining bright, lustrous, young, smooth, and soft facial skin, as well as preventing acne and delaying aging. This is

easily achieved by undergoing FCA [5].

FCA induces positive micro-trauma that stimulates various physiological responses beneficial to skin health. This technique unblocks energy circulation along meridians, enhancing both blood and qi flow. As a result, it promotes the release of adrenocorticotrophic hormone (ACTH), cortisone, and other hormones such as endorphins and nitric oxide, which are crucial for skin vitality. Cortisol release stimulation promotes deep relaxation, especially in shortened or contracted facial muscles, thereby relieving tension. Furthermore, this treatment stimulates degenerative cell regeneration and repair, while also stimulating collagen and elastin production. These effects collectively tone the skin and restore homeostasis, leading to a more youthful and vibrant appearance [9].

Negative emotions frequently manifest in the face, resulting in noticeable changes in skin texture, tension, and colour. These emotional states can cause a dull or aged appearance, affecting self-esteem and overall well-being. In contrast, FCA promotes positive emotions, vitality, and health, facilitating a sense of rejuvenation. By alleviating tension and enhancing blood flow, FCA improves the physical attributes of the skin and fosters emotional balance, resulting in a radiant and revitalized complexion. This holistic approach highlights the interconnectedness of emotional and physical health, emphasizing the FCA's transformative potential in both appearance and overall well-being [9].

Facial skin analyzer is used to evaluate the water and oil in the facial skin [11]. The Facial skin analyzer measures the changes in the percentage of moisture and oil in the facial skin. Skin elasticity begins to decline at the age of 21. As a result, the young skin will benefited from undergoing FCA treatment that helps to slow the ageing process by balancing the moisture and hydration in facial skin, but also by increasing the collagen production through the micro trauma of the cells [3]. A prior research study found that FCA restores the balance of hydration and oil content of the facial skin thereby the rejuvenation of the facial skin is achieved. Based on the observations, the current study aims to explore the effect of cosmetic acupuncture on facial skin rejuvenation.

This study is significant as it addresses a gap in the literature regarding the larger sample size.

The results of the current study will contribute to the growing body of evidence supporting or contradicting the effect of cosmetic acupuncture on facial skin rejuvenation.

The current protocol has limitations, including a single-centre design and a relatively short intervention period. Future studies with larger sample sizes, multi-centre designs, and longer durations may provide more evidence of cosmetic acupuncture's beneficial effects on facial skin rejuvenation in young adult women.

CONCLUSION

This study protocol outlines a randomized controlled trial to investigate the effects of facial cosmetic acupuncture on balancing water and oil content in adult females. The findings are expected to deepen our understanding of the benefits of facial cosmetic acupuncture, highlighting its potential as an effective, non-invasive treatment for enhancing skin health. Ultimately, this study may pave the way for further research, establishing facial cosmetic acupuncture as a viable option in the aesthetic and wellness fields. By integrating holistic practices into skincare regimens, we can empower individuals to achieve not only physical rejuvenation but also emotional well-being, reinforcing the importance of a comprehensive approach to health and beauty.

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