



Article

Effectiveness Of Acupuncture Therapy Li Point 4 (Hegu), Lu 7 (Lieque) And Facial Massage In Reducing Scale Wrinkles In Dangkrang, Purwantoro, Wonogiri Environments

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ABSTRACT

Wrinkles on the face are one of the processes of aging factors. The thinning of the collagen and elastin layers on the skin causes facial wrinkles. The wrinkles are due to a lack of thickness of the dermis layer of as much as 20%, which is associated with the loss of elastin and collagen fibers. This study uses the pre-experimental design with the pretest-posttest control group design method. The research was conducted from October 2018 to April 2019 in Dangkrang Environment, Purwantoro, Wonogiri. The study used a sample of 40 subjects meeting the inclusion and exclusion criteria divided into two groups (n = 20). Group I was treated with point acupuncture therapy LI 4 (Hegu), LU 7 (Lieque), and face massage. The Mann-Whitney U Test statistics obtained a p-value of 0.001. The results showed significant differences in changes in the face area between the two groups. Point acupuncture therapy LI 4 (Hegu), LU 7 (Lieque), and facial massage are more effective in reducing the scale of wrinkles on the face in the Dangkrang, Purwantoro, Wonogiri surroundings.

I. INTRODUCTION

Looking young or looking beautiful is a dream for women in general. At the age of adulthood, many women experience physical changes. Aging is considered to cause skin problems, such as skin starting to scratch and fine lines on the face due to decreased collagen levels. In European surveys indicate that middle age begins between 35 and 58. Women in middle age have anxiety and fear of aging, one of which is wrinkles on the face, so it causes

women to try to get rid of wrinkles and tighten the skin through anti-aging products. Beauty experts have already begun to deal with and prevent the problems that women suffer from⁽¹⁾

Clinical data obtained from the study entitled. The effects of skin color distribution and topography cues on the perception of female facial age and health by Fink & Matts stated that women with uneven wrinkles and skin color will look six years older than their actual age. A study in

Australia found that 1539 people aged 20-55 had moderate to severe wrinkles, approximately 72% of men and 47% of women under 30^(2,3). A survey revealed that 57% of women in Indonesia are already aware of signs of aging by the age of 25. A survey conducted by the independent research agency Taylor Nelson Sofres of 1,800 women aged 20-39 in Asia (India, Indonesia, Korea, the Philippines, and Thailand) showed that one in three women in Asia only use whitening treatment alone, regardless of the treatment of emerging aging signs⁽⁴⁾.

Facial wrinkles are one of the processes of aging factors. The facial wrinkles are caused by thinning the collagen and elastin layers of the skin. The wrinkles are due to a lack of thickness of the dermis layer of 20% associated with the loss of elastin and collagen fibers. The loss of these fibers hurts moisture and skin tension. The aging process of the face starts with fine wrinkles, the muscles start to shrink, and the skin shows dark and bright spots. Age, stress, pollution levels, environmental contamination, and exposure to sunlight cause skin wrinkles⁽⁵⁾. Based on the results of the observations, researchers have carried out preliminary studies in the Dangkrang, Purwantoro, and Wonogiri Environments. There are 6 RTs obtained from as many as 156 people of the female genus. Of those who have wrinkles at the age of 45-59, 51 are women. Therefore, based on the background above, the researchers are interested in doing a case study of facial wrinkles. The researchers wanted to compare point acupuncture therapy LI 4 (Hegu) and LU 7 (Lieque) with facial massage against scaling wrinkles in the Dangkrang, Purwantoro, and Wonogiri surroundings.

II. METHODS

This research, using a pre-experimental design, was carried out in the Dangkrang Environment, Purwantoro, Wonogiri, from October 2018 to April

2019. The population in this study was residents of 6 RT. Out of 156 female people with wrinkles aged 45-59, there were 51 women. Subjects selected in this study are purposive sampling. Samples were obtained from 40 people. The independent variables are point acupuncture therapy LI 4 (Hegu), LU 7 (Lieque), and facial massage.

Operational definitions in this study include: (1) The facial scale is a classification using a measuring instrument of the Modified Fitzpatrick Wrinkle Scale (MFWS) that can be seen using images. The measurement is described on a scale of 0: No wrinkles, 0.5: Flat wrinkles, 1: Fine wrinkles, 1.5: visible wrinkles, 2: Visible wrinkles, 2.5: Highly visible wrinkles, 3: Deep wrinkles, (2) Point acupuncture therapy LI 4 (Heg), LU 7 (Lieque) is stitching using an acupunctural needle inserted at the point LI 4, LU 7, which causes local vasodilation around the needle stitch, (3) facial massage is a technique used to relax the skin of the face. The technique of massage encompasses speech movements, beats, vibrations, and rotations.

Primary data for this study was obtained. The researchers gave acupuncture therapeutic action to the subjects. The tools used are acupuncture needles brand HuanQiu size one can, sterile cotton, 70% alcohol, hand scoop, pin-set, com, bend, milk cleanser, face tonic, fabric, and olive oil. The statistical test data in this study was processed using the Shapiro-Wilk and Mann-Whitney U tests.

III. RESULT

The subjects of this study were 40 people with facial wrinkles. The samples were then divided into two groups: Group I for point acupuncture therapy treatment LI 4 (Hegu), LU 7 (Lieque) with combination facial massage, and Group II for facial massage treatment alone, with each group consisting of 20 people.

Acupuncture normality, occupation, and age test results in Table 1 show that the Shapiro-Wilk significance value is

less than 0.05 ($p < 0.05$) for all variables. This means that the above data is not normally distributed

Table 1. Results of Data Normality Test

Variable	Group 1	Group 2
Age	0.000	0.000
Job	0.000	0.000
Scale of wrinkles	0.001	0.001

Description: Group I = Acupuncture therapy with a combination of facial massage; Group II = Face massage

In Table 2, the Mann Whitney U Test obtained a $p=0.001$ ($p<0.05$), meaning acupuncture therapy point LI 4 (Hegu), LU 7 (Lieque), and facial massage effective in reducing the scale of wrinkles on the face.

Table 2. Uji Mann-Whitney U Test

Group	Sum (n)	Mean	Z	p
Group I	20	0.95	-3.332	0.001
Group II	20	0.47		

IV. DISCUSSION

Point acupuncture therapy LI 4 (Hegu), LU 7 (Lieque) face massage combination is more effective in reducing the scale of facial wrinkles than just doing facial massage. The average reduction in the scale of wrinkles in group I was 0.95, whereas the average reduction of scale scales in group II was only 0.47. It can be concluded that point acupuncture therapy LI 4 (Hegu), LU 7 (Lieque), and facial massage are more effective in reducing scales of wrinkles on the face.

It is consistent with the theory of acupuncture that infiltration at the acupunctural point can cause a slur on the cell wall that will produce arachidonic acid that stimulates the onset of normal inflammation that helps in healing. Chemical mediators trigger local inflammation. Applying acupuncture points that stimulate and nourish

the skin will restore the appearance of the face to look healthier, fresh, and younger. This condition is influenced by the presence of the hormone endorphins produced by infusion at the acupuncture point so that the body will feel more relaxed and comfortable, and the body is easier to produce collagen⁽⁶⁾. At the infusion, at the point of acupuncture, LI 4 (Hegu) can cause a vasodilating effect that will improve microcirculation and moisturize skin tissue. Infusion at this point can also trigger the hypothalamus to activate the hormone endorphins so that it acts as a sedative. It's related to one of the causes of wrinkles, which is stress. Point LI 4 (Hegu) is the distal point of the face and mouth. This point can regulate Qi and Xue on the face and is often used to deal with various skin problems⁽⁷⁾. The LU 7 point (Lieque) itself serves to regulate and form the regulation of Qi. The lungs are the first stream of the meridian; therefore, the first Qi flow comes from the lungs. The spread of the Qi function is very important in distributing water and nutrients to the skin because if the skin is deficient in water and nutrition, then the skin will experience aging⁽⁸⁾

Face massage is a technique used to relax the skin of the face that is beneficial for repairing dull skin color and for skin problems with wrinkles or skin cracks⁽⁹⁾. Face massage has benefits, such as unleashing blood flow to the face, stimulating facial cleansing, tightening and smoothing the skin, and can also reduce the tension of facial muscles, so it can help reduce stress and enhance the regeneration of facial cells⁽¹⁰⁾. Facial massage is a manipulation of soft tissue structures that can calm and reduce psychological stress by increasing endogenous morphine hormones such as endorphins, enkephalins, and dynorphins while lowering stress hormones like cortisol, norepinephrine, and dopamine. Treatment massage will affect the contraction of the capillary walls so that there is a state of vasodilation or dilatation of the vascular

capillaries and lymph vessels. The flow of oxygen in the blood increases, and the elimination of metabolic residues progresses smoothly⁽¹¹⁾. It's the olive oil that the researchers used in their research to do facial massage. Olive oil has a linoleic acid content that will help maintain the water level on the face skin and prevent wrinkles at an early age. Olive oil is rich in vitamin E, which is anti-aging and tightens the skin. Olive oil also contains a lot of antioxidants called polyphenols that help protect cells from damage. Olive oil is also useful for smoothing and moisturizing skin surfaces without clogging the pores. Olive oil is a good moisturizer for the skin of the face⁽¹²⁾.

The research results showed that there was a decrease in the scale of wrinkles on the face given treatment acupuncture point LI 4 (Hegu), LU 7 (Lieque), and facial massage. This is in line with a study conducted by Dian Satriani (2016) on the effect of acupuncture on the level of wrinkles in the face. A combined acupuncture method using acupuncture points such as LI4 (Hegu), Zusanli (ST36), and Quchi (LI11) has a significant effect on reducing facial wrinkles that are applied to housewives aged 45-50 with ten therapies. This study's results align with the study by Nishimura et al. (2017) entitled Analysis of Morphological Changes after Facial Massage by a Novel Approach

Using Three-dimensional Computed Tomography. There were 12 healthy Japanese women (30-54 years old, an average age of 39.4) without scars or facial deformities. The skin and facial muscles massaged can reduce the wrinkles on the face, relax the muscles, and increase blood flow. Interventions such as point acupuncture therapy LI 4 (Hegu), LU 7 (Lieque), and facial massage can reduce the scale of wrinkles on the face.

Researchers are still using manual measurement subjectively in measuring the scale of wrinkles on the face and less monitoring the activity of the study subjects in performing daily activities, so subject studies still need to experience a reduction in scale wrinkles.

V. CONCLUSION

From the results of the study, it can be concluded that there was a decrease in the scale of wrinkles on the face given treatment acupuncture point LI 4 (Hegu), LU 7 (Lieque), and facial massage.

Researchers are still using manual measurement subjectively in measuring the scale of wrinkles on the face and less monitoring the activity of the study subjects in performing daily activities, so subject studies still need to experience a reduction in scale wrinkles.

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