

Role of Golden Ion Technology in Skin Rejuvenation: Case Report

Nishad Kerakada¹, Neljo Thomas², Ravi Kumar Chittoria³, Barath Kumar Singh⁴,
Jacob Antony Chakiath⁵

How to cite this article:

Nishad Kerakada, Neljo Thomas et. al./Role of Golden ion technology in skin rejuvenation: Case Report/RFP Journal of Dermatology 2023;8(1):55-57.

ABSTRACT

Skin rejuvenation with facial massage is an important method that has been used for a very long time. It breaks the collagen fibrils, realigns them and aids in formation of extracellular matrix. Recently we have come across the use of massager with golden ion and have used in our patient and have found useful.

Keywords: Skin Rejuvenation; Golden Ion Technology; Face Massage.

INTRODUCTION

Skin aging is a process that is affected by genetic and environmental factors. Chronic exposure of UV radiation is an important cause of aging and can cause solar elastosis, degradation of the extracellular matrix (ECM), as well as wrinkle formation. Skin aging is influenced by both intrinsic and extrinsic factors. Intrinsic or chronological skin aging results from the passage of time and is influenced by genetic factors. Extrinsic skin aging mainly results from UV irradiation, which

is called photoaging. These two types of aging processes are superimposed in sun-exposed skin, and they have common clinical features caused by dermal matrix alterations that mainly contribute to wrinkle formation, laxity, and fragility of aged skin.¹

Materials and Methods

This study was conducted in the department of Plastic Surgery at a tertiary care center after getting the departmental ethical committee approval. Informed written consent was taken from the patient. The details of the patient in study are as follows: 56 yrs gentle man with c/o feeling of being aged more than his age came to the OPD for skin rejuvenation (fig. 1). The patient was advised to use golden ion massage bar for skin rejuvenation. The golden ion massage bar (fig. 2) consists of T-shaped instrument with gold plating over the shaft. The massage bar weighs about 120 grams, dimension of 15.24*2.54*2.54 cm in size and has a handle for strong grip with a vibration frequency of 6000

Author Affiliation: ^{1,2,4,5}Senior Resident, ³Professor & Registrar, Department of Plastic Surgery & Telemedicine, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry 605006, India

Corresponding Author: Ravi Kumar Chittoria, Professor & Head of IT Wing and Telemedicine, Department of Plastic Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry 605006, India.

Email: drchittoria@yahoo.com

Received on: 08.12.2022

Accepted on: 20.12.2022

times per minute. It works on one AA battery. The patient used the massage bar for 6 weeks daily for 10 minutes over his face. (fig. 2).

Results

The patient reported that his skin felt more young and that his face rejuvenated (fig. 3). Patient was satisfied with the treatment and felt the massager easy to use

Discussion

The dermal matrix contains ECM proteins such as collagen, elastin, and proteoglycans which is responsible for conferring strength and resiliency of the skin. Skin aging associated with dermal matrix alterations and atrophy can be caused by senescence of dermal cells such as fibroblasts, and decreased synthesis and accelerated



Fig. 1: Patient face before treatment



Fig. 2: golden ion massage bar applied to the patient



Fig. 3: patient photo after 6 weeks



Fig. 4: massage bar

breakdown of dermal collagen fibers.²

Vibration therapy was a method known back in ancient times. Today, many devices that apply vibrations are accessible, most often with fixed parameters describing the generated vibrations. The impact of vibration on the human body is multidirectional. Among others, vasodilatation is observed, resulting in an improvement in blood and lymph circulation³, as well as a change in muscle tension through reflex activation.⁴ It is also confirmed that vibration therapy exerts an antalgic effect and leads to an increase in muscle mass and bone density.⁵⁻⁷

The use of golden ion has been associated with various benefits. Gold can activate the basal cells of the skin which reduces the elasticity of the skin. It thus reduces wrinkles, fine lines, blemishes and marks on the skin, and will make look younger. The ions present in gold help in stimulating the cells, nerves and veins in your body which leads to improved blood circulation. This will increase the metabolism of skin cells and secretion of the waste. Gold can help to stimulate the cells and have a healthy skin. Dryness of skin can lead to its premature aging. Use of gold can reduce the dryness of skin and helps in increasing the metabolic rate. This would prevent the skin from premature aging. Collagen is naturally produced in our body which keeps the body flexible. It is responsible for giving smooth skin and shining hair. The collagen level in the body starts depleting from the age of 20-30yrs. Skin care with gold can slow down the depletion of collagen level in your skin cells. Production of melanin or black pigment in the skin is responsible for tanning of the skin, when exposed to sunlight. The production of melanin in the body can be reduced with the use of gold.

Skin tends to sag when its elasticity decreases or is completely lost. Use of gold can breakdown the elastin gradually and restore the elasticity of the tissues. This would further prevent the skin from sagging. Gold increases the elasticity of the skin, thus makes it firm and toned.

Conclusion

The patient noticed that after using the golden ion massage bar his skin felt more rejuvenated. However it needs large scale multicentric randomized controlled trial to be brought into practice

DECLARATIONS

Acknowledgment: Authors' contributions

All authors made contributions to the article:
Availability of data and materials

Financial support and sponsorship: None.

Conflicts of interest: None.

References

1. Fisher, G.J., et al., Mechanisms of photoaging and chronological skin aging. *Arch Dermatol*, 2002. 138(11): pp. 1462-70.
2. Murakami, H., et al., Importance of amino acid composition to improve skin collagen protein synthesis rates in UV-irradiated mice. *Amino Acids*, 2012. 42(6): pp. 2481-9.
3. G. Nakagami, H. Sanada, N. Matsui et al., "Effect of vibration on skin blood flow in an in vivo microcirculatory model," *Bioscience Trends*, vol. 1, no. 3, pp. 161-166, 2007.
4. Z. K. Pope and J. M. DeFreitas, "The effects of acute and prolonged muscle vibration on the function of the muscle spindle's reflex arc," *Somatosensory and Motor Research*, vol. 32, no. 4, pp. 254-261, 2015.
5. S. Gusso, C. F. Munns, P. Colle et al., "Effects of whole-body vibration training on physical function, bone and muscle mass in adolescents and young adults with cerebral palsy," *Scientific Reports*, vol. 6, Article ID 22518, 2016.
6. K. C. Smith, S. L. Comite, S. Balasubramanian, A. Carver, and J. F. Liu, "Vibration anesthesia: a noninvasive method of reducing discomfort prior to dermatologic procedures," *Dermatology Online Journal*, vol. 10, no. 2, 2004.
7. A. H. Alghadir, S. Anwer, H. Zafar, and Z. A. Iqbal, "Effect of localised vibration on muscle strength in healthy adults: a systematic review," *Physiotherapy (United Kingdom)*, vol. 104, no. 1, pp. 18-24, 2018.