

〈一般論文〉

深部マッサージによる顔面部皮下組織の変化

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The Change of the Subcutaneous Tissue of the Face by the Deeper Skin Tissues Massage

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Abstract

Age-dependent facial sagging is a serious concern in women of advanced age. While there are many anecdotal accounts describing the benefit of facial massage as a natural facelift, few scientific studies have investigated this belief. In this study, we quantified the effect on the facial sagging of a facial massage technique designed to stimulate the deeper skin tissues. For a duration of 16 weeks, twenty healthy women were divided into two groups: a treatment group ($n = 10$) who gave themselves a five-minute facial massage using a commercially available massage cream, and a control group ($n = 10$) who applied the same cream without massage. An ultrasound B-mode imaging system was used to quantify the thickness changes in the internal skin structures. At weeks 8 and 16, a significant decrease from the initial value was found in the thickness of the hypodermal layer along the jawline. Subsequently, 3-D image analysis system was used to assess the effect of this thinner hypodermal layer on the skin surface. It was found that the treatment group exhibited a significant depression in the skin surface from the lower cheek to the jaw. These results indicate that continual facial massage has the effect of decreasing the thickness of the hypodermal layer, which in turn reduces sagging of the lower cheek skin surface. These results further demonstrate the usefulness of ultrasound B-mode imaging system for the evaluation of facial sagging.

Key words: B-mode ultrasound, massage, face line, sag, subcutaneous fat.