INTRODUCTION

Fractional microneedle radiofrequency method is an energy-based application in which the epidermis does not receive thermal damage and creates a coagulation area surrounded by a non-coagulated heating zone around the dermis (1). Radiofrequency energy causes dermal warming and collagen degeneration, which stimulate wound healing. Thus, it is effective in the clinical improvement of mild and moderate skin laxity by promoting collagen modification and skin contraction. It has been shown to be safe and effective in the treatment of wrinkles in skin type I - V patients (2). Fractional Microneedle Radiofrequency is also used in the treatment of acne scars and hyperhidrosis (3). Fractional microneedle radiofrequency application is a safe...
and with few side effects is planned for our patient. The case was presented because it was thought that a successful result was achieved although the application was monotherapy.

CASE REPORT

A 35-year-old woman presented with sagging and wrinkles on the abdominal skin (Figure 1). There were two pregnancy stories in the patient’s history, and it was learned that her complaints occurred within 2 years after the last pregnancy. During the treatment sessions of the patient, there was no history of pregnancy, breastfeeding, drug use, infection at the application site and any previous dermocosmetic application. First, consent form was taken from the patient. After taking photos of the application site, 2.5% lidocaine cream was applied to the application site under occlusion for one hour. Fractional microneedle radiofrequency (MNRF) was applied after wiping the application area with gauze impregnated with 70% alcohol. The device used in the application had adjustable needle tips ranging from 0.5 to 3 mm that transmit 2 MHz bipolar radiofrequency energy to the dermis. Each needle had an uninsulated tip of 0.3mm and an insulated needle body designed to avoid epidermal damage. The treatments were performed 3 times in each session at a depth of 1 mm, 1.5 mm and 2 mm respectively. Applications A total of 4 sessions were performed with 49-pin insulated inserts and one-month intervals. At the end of the fourth application, the first- and fourth-month photographs were compared. Linear lines, point depressions, skin laxity and striae, which were present at the beginning, were scored between 0-3 points (0 = absent, 1 = mild, 2 = moderate, 3 = severe). The initial score of our patient was determined as nine points, 3 for linear lines, 2 for point depressions, 2 for laxity and 2 for stria. After the fourth application total score as 5 points was measured. Linear lines, point depressions and skin laxity were evaluated as 1 point, stria severity as 2 points. (Figure 2). No side effects and complications were observed other than temporary erythema.
DISCUSSION

Microneedle radiofrequency has been used in the treatment of skin laxity in recent years. It is preferred as a noninvasive treatment for patients because of the short duration of transient side effects after the procedure and the absence of long-term and serious side effects (1). These devices heal the symptoms of sagging by heating the dermis by creating tissue resistance. Unlike laser treatment, it does not require chromophore and can be used safely for any skin type (2). The processing time varies from about 15 to 60 minutes, depending on the device and the application site. Bleeding is rarely observed at the needle entry points and should be wiped with sterile gauze. (3). Microneedle radiofrequency can be used as subcutaneous tissue applications in the treatment of skin laxity that may develop due to weight loss in different parts of the body. Yu et al. Applied 2 sessions of MNRF to their patients and found a reduction of approximately 50% in skin laxity. In their studies, they used Hexasel’Dalfus Forno Severity Scale of Cellulite and patient observation score to make objective evaluations (4). We also used a scoring method similar to their cellulite scoring, and we found similar rates of reduction in skin laxity, linear lines, point depressions, and stria severity. After 4 sessions of treatment, significant improvement was observed in the loose skin area of the upper and lower umbilicus and static wrinkles on the umbilicus. It has been observed that bipolar RF energy is more effective than monopolar and combined treatments are more effective than single method in the treatment of striae (5).

RESULT

Fractional microneedle radiofrequency method can be an effective and safe option for skin looseness and wrinkles in the abdomen. Although it can be preferred as monotherapy, we recommend combined treatments to increase effectiveness. In order to get a good result from the treatment, it may be recommended to apply to deep dermis and subcutaneous tissue.

Informed Consent: Written consent was obtained from the participants.

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