Abstract

A unique chemical formula consisting of alpha-hydroxy acid, beta-hydroxy acid and some other ingredients is used as a professional treatment and the aftercare or home care is achieved by Conditioning Oil, Retinyl Serum and Scarcare Gel. The chemical formula was applied on scar area with or without dry needling and the aftercare was applied alternately with above 3 products. Substantial scar reduction of keloidal, hypertrophic and surgical scars has been achieved in all cases. Hence this technique is a viable, effective and safe method to diminish all non-acne scars.

Keywords: Conditioning Oil; Scarcare Gel; Keloidal; Scarring; Ear Piercing; Surgical Cuts; Collagen; Ablative; Non-ablative

Introduction

Scarring is a very common skin problem. Most skin injury types can contribute to scarring. This includes cuts, burns, acne scars, chickenpox scars, ear piercing, scratches, surgical cuts, and vaccination sites. There are several types of scars. Most skin scars are flat and leave a trace of the original injury that caused them. Hypertrophic scars are raised above the surrounding skin. Keloid scars have the similar appearance of hypertrophic scar but can grow outside of the original wound area (more severe). Atrophic scars take form of sunken recess in the skin, which has a pitted appearance. Stretch marks (technically called striae) are also a form of scarring.

Scars result from the healing process of wound repair in the skin. Scar tissue is composed of the same protein (collagen) as the tissue that it replaces, however the fiber composition of the protein is different from the uniform & orderly orientation of the collagen fibers found in normal tissue. Scar tissue also lacks elasticity. Sweat glands and hair follicles do not grow back within scar tissues. In addition, collagen is overproduced or under-produced relative to the surrounding skin level. The color of scar tissue can vary from pink to the color of the person's skin or red to dark brown. Among all types of scars, hypertrophic scars and keloid scars as well as surgical scars are the most unsightly and difficult to treat.

Silicone gels, creams or sheets are the most common home scar care products on the market. Topical products with Vitamin E, Aloe Vera & onion extract, etc. are also available as well. These products can improve scar appearance to small degree after use of 8-12 months. Laser (ablative or non-ablative) and IPL (Intensive Pulsed Light) treatments are used to treat scars. Both methods utilize light to promote a healing process in scar tissue. It can improve scar appearance but cannot completely remove hypertrophic and keloidal scars. 3-7 treatment sessions usually are required to get some degree of improvement with each session costing US$300-1000. Radiotherapy and steroid injection are other methods rarely used due to side effect and ineffectiveness. Surgical excision is an effective scar removal method if it is performed well. However, scar regeneration is a serious drawback (over 50%) Moreover, the cost is very high minimum US$5,000.00 depending upon scar size. A Special chemical formula and aftercare kit have been developed and tested on the tough non-acne scars.

Materials and Equipment’s

Scar Care Formula from Rejuvi Laboratory Inc. was used as professional treatment in salon or clinic. Scar Aftercare Kit consisting of Conditioning Oil, Retinyl Serum and Scarcare Gel from Rejuvi Laboratory Inc. was used as home care after professional
treatment. The composition of Scarcare Formula is ethyl alcohol, lactic acid, salicylic acid, 1,3-dihydrobenzene, allantoin and licorice extract. The main compositions of Conditioning Oil are Aloe Vera, jojoba oil, avocado oil borage oil and vitamin E. The active ingredients of Retinyl Serum are retinyl palmitate, retinyl acetate, retinol and coenzyme Q10. The active ingredients of Scarcare Gel are potassium iodide and licorice extract. The products used in these studies are shown in Figure 1. Cosmetic brush with suitable size was used to apply Scarcare Formula on the scar area. A common pen like permanent makeup machine with 3 & 5 prong needles is used to enhance the penetration of Scar care Formula in some cases.

**Treatment Procedures and Aftercare**

The Scarcare Formula was applied only on the scar area via a cosmetic brush to minimum 15 coats. The Scarcare formula should be dried thoroughly via a hand fan or portable electrical fan after each coat (a minute or so). After completion of 15 coats, the treated area must be kept from water contact for minimum 48 hours. A treatment takes approximately 40-50 minutes. A scar area can be punctured lightly and loosely via a permanent makeup machine with 3 or 5 prong needles before application of Scarcare Formula. Only 6-8 coats of Scarcare Gel were needed in this case. The treated area must be kept from water contact for minimum 48 hours. In this case a treatment takes 30 minutes or less. The use of Dry Needling can enhance efficiency considerably but should be avoided for sensitive area such as breast or large abdominal area (might cause skin discomfort). After minimum 48 hours, the treated area should be washed thoroughly with soap and water then apply Conditioning Oil twice a day. Apply Retinyl Serum twice in the next day. Use Conditioning Oil and Retinyl Serum alternately for 10 days. Then switch to Scarcare Gel twice a day for another 5-10 days (until next Scarcare Formula professional treatment). The treatment of Scarcare Formula could be performed up to 4-5 times in every 15-30 day period depending upon the recovery condition of the treated scar area.

**Results**

The Scar reduction regimen was performed over 30 people and the improvement was substantial or remarkable in all cases. A good improvement could be observed mostly after one treatment within 20 days regardless the scar age (from 1-15 years). The Figure 2 shows a keloid scar on stomach 45 days after one treatment. Figure 3 shows a long surgical scar on abdominal area 15 days after one treatment. Figure 4 show a facial keloid scar 16 days after one treatment and the dark brownish color diminished substantially. Figure 5 shows a long hypertrophic scar on arm 50 days after two treatments. Figure 6 shows the long knee surgical scar (15 years old) after 3 treatments with dry needling. Figure 7 shows a facial scar near ear 60 days after one treatment.
Discussion

It has been observed that this chemical regimen has the following functions:

a) To soften or loosen scar tissue (protein fibers) significantly.

b) To promote scar tissues (protein fibers) in orderly orientation (normalizing proteins).

c) To promote even distribution of a scar tissue (collagen) relative to the surrounding skin level.

d) To change color of scar to normal skin color.

The Scarcare Formula treatment can be performed up to 5 times to get maximum improvement. Presumably further improvement would level off after 5th treatment. The Scar Aftercare Kit plays an important role in the overall scar reduction process. Essential fatty acids (called Vitamin F) such as Omega-3 and Omega 6 oil in Conditioning Oil can repair skin wound or damage and it is very important for skin health [1]. Vitamin A and its derivatives in Retinyl Serum can soften the skin tissue and change abnormal skin cells to normal skin cells [2] Potassium iodide at high concentration (in Scarcare Gel) has been proven to soften scar tissue and help reduce hypertrophic scar or keloid scars in own research, test and usage for over 8 years. Scar tissue’s softening, normalization and re-distribution is a slow and time-consuming process even if a substance can promote these functions. The Scarcare Formula treatment plus the Scar Aftercare Kit provide deep skin penetration, multi-mechanisms and continuous stimulation and repair on scar tissues. Therefore, its efficiency or improvement is remarkable and much faster than all existing methods except surgical excision. Furthermore, no scar regeneration or recurrence has been observed after scar reduction because the chemical regimen is a non-invasive and natural process promoting scar tissue’s own normalization.

Conclusion

A synergistic and very effective chemical regimen for scar reduction has been developed. It can be utilized by both aesthetic and medical professionals. Scar treatment revenue reportedly reached over $4.75 billion in 2014 and the scar treatment product market grew at 10.6% during 2011-2014 [3]. This indicates the huge demand and consumer’s need for scar reduction. This chemical regimen provides a new dimension for scar reduction which can help numerous people better for their earnest need.

References

