INTRODUCTION

Hypertrophic scars and keloids are common fibrotic conditions that result in an over-deposition of collagen in the skin, producing itching, pain, functional limitations and disfigurement with emotional alterations and psychological consequences. Sometimes in spite of the etiology, age, size, race, location, suturing technique or wound treatment, this type of scar tissue forms even with a careful, well-planned, tension-free skin repair (1). It has been reported that the mechanism of action of topical Polymethylsilicone consists in regulating the expression of growth factors (2) by decreasing the action of fibroblasts and fibrogenic cytokines. In difficult cases the combination of massage, pressure therapy, steroids and ultrasound radiation has given suboptimal results in the treatment of hypertrophic scars and keloids.

OBJECTIVES

Present our clinical experience with the treatment of multiple hypertrophic scars and keloids using the traditional delivery systems of topical Polymethylsilicone. These are the results of the first in a series of case studies.

MATERIALS & METHODS:

Thirty-nine patients have been enrolled in this on-going clinical protocol. The study presents 30 patients, 86.6% were female and 13.4% were male. They completed the study according to specific guidelines set in the protocol with a minimum of 4 weeks of untreated treatment and close follow up. Subjects were recruited from the Aesthetic Center for Plastic Surgery, a fully accredited (AAAS) and Texas Department of Health certified outpatient facility. All patients gave informed consent. The average patient being thirty-six years old and receiving treatment from May 2005 to November 2006. Topical polydimethylsilicone gel was administered by two mechanisms. Device number one (Experimental) involved a slide-on silicone gel applicator called Pro-Sil, manufactured by Biodermis, Las Vegas, NV USA (Figure Num 1).

and device number 2: applying the traditional delivery method (control) using topical reusable silicone gel sheets. also manufactured by Biodermis, Las Vegas, NV USA. (Figure Num 2)

RESULTS

A total of 26 females and 4 males were included in the study. The scar age ranged from 2 weeks to 16 years. 12 were Caucasian, 8 Hispanic, 7 African American and 2 Asians. The scars were located in the breasts (18) abdomen (8) in the chest (5) in the back (4) and arms (5). The mean scar size was 40.2cm.

ETIOLOGY

Keloids 7%
Hypertrophic scars 13%
Surgical Incision 80%

RACE DISTRIBUTION

Caucasian 67%
Hispanic 19%
Asian 3%
African American 11%

SCAR LOCATION

Breast 57%
Abdomen 23%
Back 7%
Chest 10%
Arms 3%

OVERALL RESULTS

100% of the patients preferred the use of the slide-on applicator over the silicone sheets. Although the results of the local effects of topical silcone gel in multiple hypertrophic scars and keloids are comparable despite the delivery mechanism used, the ease, practicality and convenience of using the slide-on applicator makes us feel very optimistic to recommend this device over any other technology currently available on the market today.

REFERENCES


CONCLUSION

Initial findings are overwhelmingly positive with regard to patient dissatisfaction and compliance with the slide-on silicone gel applicator, Pro-Sil. Its compact size combined with a convenient familiar container design (lipstick look alike) reflected a more practical and convenient delivery mechanism of topical polydimethylsilicone.