ADVANCED SCAR TREATMENT
A scar is a manifestation of the skin's healing process. After skin or tissue is wounded, the body releases collagen to mend the damage. Collagen, a protein, reattaches the damaged skin. As the wound heals, a temporary crust forms and covers it. The crust is an eschar that protects the damaged area. Causes of scars include cuts, sores, surgery, and burns. Severe acne and chicken pox may also scar skin. The degree that skin scars depends on more than the size and depth of the wound. Age also affects the process. The healing process is stronger in younger skin. The healing process takes from one year to 18 months. Some scars heal naturally. Other scars require additional treatment.

Hypertrophic scars and keloids are caused by an over-active healing process. This produces an excessive amount of collagen at the wound site. Keloid and hypertrophic scars have similar appearances. However, the keloid scar expands beyond the original wound. Hypertrophic scars do not extend beyond the wound site. The scar may itch and usually heals without professional treatment in about a year. Keloids are large scars that may form after surgery, an injury, burn, or body piercing.
SCAR CLASSIFICATION

The most widely used grading system is the Vancouver Scar Scale:

**MATURE SCAR**
a light colored, flat scar

**IMMATURE SCAR**
a red, sometimes itchy or painful, and slightly elevated scar in the process of remodeling: Many of these become flat and assume a pigmentation similar to the surrounding skin

**LINEAR HYPERTROPHIC**
(SURGICAL/TRAUMATIC SCAR)
a red, raised sometimes itchy scar confined to the border of the original surgical incision. This usually occurs within weeks after surgery and they may increase in size rapidly for 3-6 months and then begin to regress

**WIDESPREAD HYPERTROPHIC**
(BURN SCAR)
a widespread red, raised scar that remains within the borders of the burn injury

**MINOR KELOID**
a focally raised, itchy scar extending over normal tissue. This may develop up to 1 year after injury; there may be a genetic abnormality associated with keloid scarring and typical sites include earlobes

**MAJOR KELOID**
a large (< 0.5cm.), raised scar, extending over normal tissue. This type of scar can continue to spread over years
CURRENT THERAPEUTIC APPROACHES I

It is much more efficient to prevent hypertrophic scars than to treat them: prevention implies a therapy with the aim of reducing the risk of a problem scar evolving; the transition to a treatment regimen occurs when a true hypertrophic scar or keloid, and not an immature scar, is diagnosed.

Scar classification is the primary decision criterion for treatment selection. Actually there are many treatment options:

**SURGERY**

This procedure works well on scars that are wide or long; combining surgery with steroid injections reduces the recurrence rate of keloids to less than 50 percent, and the combination of surgery and perioperative radiation therapy reduces recurrence to 10 percent.

**STEROID INJECTIONS**

Form of treatment for scars, particularly keloid and hypertrophic scars that flattens the scar and helps with itching. Corticosteroids are an anti-inflammatory drug that helps to lessen the scar’s red color and thickness: response rates vary from 50 to 100 percent, with a recurrence rate of 9 to 50 percent.
Cryosurgery involves the freezing of tissue with a probe containing nitrous oxide. It is used to modify scars, especially keloid and hypertrophic scars, usually small. Side effects include hyperpigmentation, moderate skin atrophy and pain.

Dermabrasion is the removal of a layer of the skin's surface. Scanning carbon dioxide laser have been used to debride burns wounds, but without clinically improved scar outcome. Laser therapy remains emerging technology, with limited follow-up and a lack of controlled studies, however many dermatologists have seen benefits in erythematous hypertrophic scars in speeding resolution, and perhaps improving long-term outcomes.

Silicone gel sheets can be purchased over-the-counter and have now become a standard care for plastic surgeons. The sheets are worn over the scar area to seal moisture: they may be especially useful in children and people who cannot tolerate the pain of management procedures.
Pressure therapy has been used in the management of hypertrophic scars and keloids since 1970s: it is a standard therapy for burn scars.

Radiotherapy has been used as mono-therapy, and in combination with surgery, for hypertrophic scars and keloids: it has an high recurrence rate (50 to 100 percent).

The technique consists in applying paper tape with an appropriate adhesive to fresh surgical incisions, and for several weeks after surgery. The benefit may be in part mechanical (analogous to pressure therapy) and occlusive (analogous to silicone gel therapy).

ALTERNATE METHODS

Of treating scars range from applying Vitamin E, Aloe vera, onion extract cream, creams containing extracts from plants such as Centella asiatica or cocoa butter, to massaging the skin.
Liposcar is a lipophilic anhydrous gel containing pure Vitamin E acetate formulated for the management and to reduce the appearance of scars on face and body secondary to trauma of the skin, by injury, burns or surgery. Liposcar is the only lipogel with jellified Vitamin E.

- NO perfumes
- NO preservative
- NO coloring agent
- NO fragrance
- NO parabens
- Non-greasy
Liposcar should be used **FOR SCAR PREVENTION AND REDUCTION**

<table>
<thead>
<tr>
<th>IN CASE OF NEW AND OLD SCARS:</th>
</tr>
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<tbody>
<tr>
<td>2 times per day for 2 to 6 months in relation with scar dimension and type</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>IN CASE OF PLANNED SURGERY:</th>
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<tbody>
<tr>
<td>3 times per day for two weeks before surgery</td>
</tr>
<tr>
<td>2 times per day for at least one month after surgery</td>
</tr>
</tbody>
</table>

**REGULATORY STATUS** → Medical device EU  
**PACKAGING AVAILABLE** → 5mL tube, 15mL tube, 50mL tube
MECHANISM OF ACTION

Vitamin E has a strong anti-oxidant activity that prevents the propagation of free-radicals reactions.

The human skin has specific enzymes that transform Vit E acetate/tocopheryl acetate into Vit E/tocopherol.

Pure topical Vit E (Liposcar) has an emollient effect on the skin.

The absence of water of Liposcar prevents bacterial proliferation and enhances the barrier function of the skin.

Liposcar also promotes wound healing, by inhibiting the collagen synthesis and reducing fibrolast proliferation and inflammation.
Liposcar relieves dry, flaky and cracked skin due to external agents. Ideal for face, lips, delicate and chapped skin areas. Conditions, nourishes and protects the skin leaving it soft, smooth and healthy. Helps restore a lustrous healthy looking sheen, delivering the rich healing benefit of pure vitamin E, one of nature's antioxidants.

The product provides a natural barrier to moisture loss and adds lubrication without feeling too greasy. Can also be used as night cream, helping to prolong the skin’s youthful appearance. Assists in softening, smoothing and reducing the appearance of scars from injury, burns, surgery, acne and stretch marks. Lubricating action on genital or perianal dryness or discomfort. Can also be used in place of a massage oil.

**DIRECTIONS FOR USE:** apply LIPOSCAR directly to desired area and massage till completely absorbed at least twice a day or as often as desired.

**REGULATORY STATUS** → Cosmetic
**PACKAGING AVAILABLE** → 5mL tube, 15mL tube, 50mL tube
BIBLIOGRAPHY ON VITAMIN E

“A prospective study in children: pre- and post surgery use of Vitamin E in surgical incisions“

Nicola Zampieri*, Veronica Zuin *, Roberto Burro ***, Alberto Ottolenghi*, Francesco Saverio Camoglio*
*Department of Surgical Sciences, Pediatric Surgical Unit, University of Verona ** University of Verona

Single-blind study

- Group A used topical Vitamin E on the intended incision site for **at least 15 days, thrice daily, before surgery and 30 for at least days, twice daily, after surgery** (patients between 3 and 9 years)
- Group B received topical petrolatum-based ointment, with same application schedule of Group A (patients between 2 and 9 years)

Inclusion criteria

- Need of elective inguinal surgery
- No previous inguinal/abdominal surgery
- No inguinal trauma
- No keloids due to previous trauma
- No systemic, skin diseases nor infections
- No previous use of topical steroids or drugs

Duration and number of patients

- From May 2003 to September 2008
- **428 patients**, with NO adverse events, hyperpigmentation, burning or irritation related to the topical treatment in Group A
RESULTS

At the end of topical treatment and after 6 months, parents were asked to fill out a questionnaire based on the *Vancouver Scar Scale*. A total numerical value was calculated depending on the answer given:

0 Poor (KELOIDS, WOUND INFECTION, BLEEDING)
1 Fairly good (FLAT SCARS, HYPERPIGMENTATION, DYSCHROMIC SIGNS)
2 Good (NO DYSCHROMIC SIGNS)
3 Very good (NO VISIBLE SCARS)

Follow-up visits were carried out 10 days after the end of each treatment and 6 months at the outpatients departments.

- **GROUP A**
  - 96% of patients with VERY GOOD results
  - 4% of patients with GOOD results
  - No wound infection or development of keloids was noted in patients of Group A

- **GROUP B**
  - 78% of patients with VERY GOOD results
  - 15% of patients with FAIRLY GOOD results
  - 7% of patients developed KELOIDS 6 months after surgery
RESULTS

There was a significant difference ($p < 0.05$) in the response rate between the study and control groups.
THERE WAS A SIGNIFICANT DIFFERENCE ($P < 0.05$) IN THE RESPONSE RATE BETWEEN THE STUDY AND CONTROL GROUPS

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Surgical and cosmetic results in the study and control groups after 10 days- parents and external surgeon evaluation. Parents/external surgeon evaluation.</th>
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<tr>
<td>Results</td>
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<tr>
<td>Keloids</td>
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<tr>
<td>Wound infection</td>
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<tr>
<td>Cosmetic Results</td>
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<tr>
<td>Poor</td>
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</tr>
<tr>
<td>Fairly good</td>
<td>(flat scar, scab, hyperpigmentation dischromic signs)</td>
</tr>
<tr>
<td>Good</td>
<td>(flared margins, no dyschromic sign)</td>
</tr>
<tr>
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<td>(excellent cosmetic results, no visible scars)</td>
</tr>
</tbody>
</table>

<sup>a</sup> There was a significant difference ($P < 0.05$) in the response rate between the study and control groups.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Surgical and cosmetic results in the study and control groups at 6 months- parents and external surgeon evaluation. Parents/external surgeon evaluation.</th>
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</thead>
<tbody>
<tr>
<td>Results</td>
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<tr>
<td>Keloids</td>
<td></td>
</tr>
<tr>
<td>Cosmetic Results</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>(Keloids, bleeding)</td>
</tr>
<tr>
<td>Fairly good</td>
<td>(flat scar, scab, hyperpigmentation dischromic signs)</td>
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</table>

<sup>a</sup> There was a significant difference ($P < 0.05$) in the response rate between the study and control groups.
BIBLIOGRAPHY ON VITAMIN E II

“The effects of topical vitamin E and silicone on the clinical appearance of skin scar in the parotid gland surgery: a longitudinal prospective clinical study“

**Single-blind study**

All the patients were divided in 3 groups at baseline (that corresponded to the seventh day after the operation or the day of suture removal):

- **Group A** used topical Silicone gel (containing no excipients)
- **Group B** received Vitamin E acetate gel (containing the following excipients: Cyclopentasiloxane, Tocopheryl acetate, Hydrogenated castor oil, Ethylhexyl palmitate, Dimeticolon)
- **Group C** received Vitamin E acetate plus Silicone gel

**Inclusion criteria**

- Patients with a diagnosis of mono lateral parotid pleomorphic adenoma, who need elective surgery
- No presence of hypertrophic scars and/or keloids in any other part of neck and head region
- Absence of any systemic and/or cutaneous disease capable of interfering with healing and Vancouver Scar Scale (VSS)
- No history of systemic and/or topical use of medication (isotretinoin, corticosteroids)
- Length of wound of at least 5 cm

**Duration and number of patients**

- From June 2010 to December 2012
- 360 days, with visits at baseline, after 15, 30, 60, 180 and 360 days
- **90 patients**, with NO side effects, no wound infection
RESULTS II

IN all the 3 groups the formed scars were evaluated according to the VSS (Vancouver Scar Scale); complete skin scar healing was defined as the total absence of any clinical signs of hypertrophic scar (zero score to all four parameters of the VSS); in addition, patient global satisfaction assessment (PtGSA) was evaluated using a 4-point scale.

1. Poor improvement
2. Fair improvement
3. Good improvement
4. Excellent improvement

CONCLUSIONS

All three treatments modalities:

- Have been effective in reducing no-aesthetic hypertrophic scars/keloids in the head and neck region
- Contribute to have a very high satisfaction among patients
- The combination of topical Vitamin E and silicone gel showed to be superior giving better aesthetic results, mostly in terms of hyperpigmentation
RESULTS II

TOTAL SCORE is the comparison of surgical results at 6 different times (0, 15, 30, 60, 180, 360 days) within the same Group using the Vancouver Scar Scale (VSS); parameters were: pigmentation, vascularity, pliability, height.

![Graph showing total score comparison]

Dermatix is a registered trademark of Valeant Pharmaceuticals International Inc.
CLINICAL STUDY II RESULTS

TOTAL SCORE is the comparison of surgical results at 6 different times (0, 15, 30, 60, 180, 360 days) within the same Group using the Vancouver Scar Scale (VSS); parameters were: pigmentation, vascularity, pliability, height.
BIBLIOGRAPHY ON VITAMIN E III (poster presented at the AAD, Denver, March 2014)

“The use of topical application of lipophilic gel rich in Vitamin E in the management of scars and stasis dermatitis in patients with varicose veins”  N.Zampieri, R.L. Castellani*, F.S.Camoglio, Department of Pediatric Surgical, University of Verona, *Department of Surgery, Casa di Cura san Francesco Hospital, Verona, Italy

Materials & Methods of study

All the patients were divided in 2 groups at baseline (that corresponded to the seventh day after the operation or the day of suture removal):

• **Group A:** topical application of Vitamin E 3 times a day for 15 days before surgery and 3 times a day for 30 days after surgery

• **Group B:** Application of a standard emollient cream, with the same modalities

Inclusion criteria

• Patients with a saphenous insufficiency that underwent saphenectomy

• Patients at clinical stage C1 (presence of reticular veins and redness of the skin around the ankles)

• Each patients had a post-operative standard vascular compression for 30 days

• Evaluation by CEAP Scale (Clinical Etiologic, Anatomic and Pathophysiologic)

Duration and number of patients

• Visits at baseline + 1,3,6 months after surgery

• **67 patients**, with NO discomfort during the application
RESULTS

During the study 32 patients were treated with Vitamin E and 35 with an emollient cream. All patients had good post-operative surgical period without complication (vein thrombosis or thrombophlebitis).

CONCLUSIONS

None of the study patients reported discomfort during topical application.

None of the patients had reflux at 6 months after surgery.

This study supported the efficacy of the topical application of Vitamin E in patients with dermatitis due to veins insufficiency.

RESULTS

✓ 87.5% patients in the Vitamin E group showed a good disappearance of skin dermatitis and healing eczema without complications.

✓ 84.3% of patients in the Vitamin E group had good results in scars.
The useful of topical application of Lipophilic Anhydrous Gel rich in Vitamin E in the management of scars and stasis dermatitis in patients with varicose veins

N. Zampieri, R.L. Castellani*, F.S.Camoglio

Department of Surgical Sciences-Paediatric, University of Verona-RIV; Department of Surgery, Casa di Cura San Francesco Hospital, Verona, Italy

BACKGROUND-INTRODUCTION-AIMS

Venous insufficiency can be defined as fixed venous outflow disturbance of the limbs. The CEAP scale includes clinical, etiologic, anatomic and pathophysiologic aspects and has been used in the assessment of venous insufficiency. Clinical classification comprises of 7 groups. It takes into account the appearance of the skin of the lower limbs, presence of edema, telangiectasia and vascular ulcers. Clinical grade C1 is the presence of reticular veins and redness of the skin around the ankles. The aim of this study was to investigate the efficacy and safety of topical application of vitamin E on the scars appearance and stasis dermatitis compared with a standard cream.

MATERIALS AND METHODS

A prospective study was approved by the internal scientific research board and started in September 2012; oral and written consent was obtained by each patient. Each patients (aged between 40 and 65 yrs ) were stage C1 with saphenous insufficiency detected on Doppler ultrasound and underwent saphenectomy; patients were treated with two different strategies: topical application of vitamin E three times a day 15 days before surgery and 3 times a day for 30 days after surgery (group A) or standard emollient cream (group B). Each patient had postoperative elastic vascular compression for 30 days. If patients underwent control visit at 1, 3 and 6 months after surgery. At control Doppler ultrasound was performed in order to evaluate the surgical outcome of saphenectomy. The primary end point was the difference between the groups regarding the percentages of patients achieving a reduction of skin dermatitis and scars appearance at 3 and 6 months follow-up. Scars appearance was evaluated with a standard schedule.

RESULTS

During the study period 67 patients were included and analyzed: 32 patients were treated with vitamin E while 35 patients were treated with emollient cream. All patients had good post-operative surgical period without complication i.e. veins thrombosis or thrombophlebitis. 8 patients (87.5%) in the vitamin E group showed a good disappearance of skin dermatitis and healing of eczema without any complications. good results in scars was found in 84.3% of patients. 20 patients (57%) of the emollient group showed disappearance of skin dermatitis but 8 of them had still eczema (n=0.005). In this group good results of scars appearance was found in 18 patients (61%). None of our patients (both groups) had reflux at 6 months after surgery: one patients of the vitamin E group needed vascular compression for 40 days due to pain. None of the study patients reported discomfort during the topical application.

DISCUSSION

Stasis dermatitis is a common inflammatory skin disease that occurs on the lower extremities. It is usually the earliest cutaneous sequel of chronic venous insufficiency with venous hypertension and may be a precursor to more problematic conditions, such as venous leg ulceration and lipodermatosclerosis. Hyperkeratosis, parakeratosis, acanthosis, and mild spongiosis are the epidermal changes usually seen in uncomplicated stasis dermatitis. Varicose veins are subcutaneous dilated, tortuous veins greater than three millimeters in diameter and may involve the saphenous veins, saphenous tributaries, or non-saphenous superficial leg veins. Longstanding venous disease associated with venous reflux is characterized by the development of dependent ankle edema which may progress over time to include the calf region. In the early stages of chronic venous insufficiency, edema may be present only by the end of the day; however, with time it can become persistent throughout the day. Individuals with functional venous disease due to venous reflux are prone to develop stasis dermatitis which is one of the most common and earliest dermatologic signs of chronic venous insufficiency. Stasis dermatitis is an inflammatory process that presents as an eczematous rash characterized by itching, erythema, scaling, weeping, erosions, and crusting. The data reported in this study support the efficacy of the topical application of vitamin E in patients with dermatitis due to veins insufficiency; the significant differences in favor of vitamin E group regarding skin changes (maceration, biromas, and dermatitis) and scars appearance may suggest to use this product in clinical practice.

REFERENCES

“Topical application of lipophilic anhydrous gel rich in Vitamin E in the management of scars in patients surgically treated for neck cysts“

N. Zampieri, R.L. Castellani*, F.S. Camoglio, Department of Pediatric Surgical, University of Verona, Italy

Materials & Methods of study

All the patients were divided in 2 groups at baseline

- **Group A:** topical application of Vitamin E 3 times a day for 15 days before surgery and 3 times a day for 30 days after surgery (15 patients)
- **Group B:** application of a standard petrolatum-based emollient, with the same modalities (13 patients)

Inclusion criteria

- Patients who needed an elective surgery, but no previous surgery
- No trauma and no keloids due to previous trauma
- No systemic diseases
- No previous use of topical steroids or drugs
- Filling of a questionnaire by parents at the end of the treatment and after 6 months (Vancouver Scar Scale)

Duration and number of patients

- Study run between May 2010 and May 2012
- Visits at baseline + 1,3, 6 months after surgery
- **28 patients**, with NO adverse events such as hyperpigmentation or hypopigmentation, burning, stinging or irritation
RESULTS

✓ no patients in the Vitamin E group developed keloids or wound infection
✓ all patients in the Vitamin E group considered the cosmetic results very good
✓ in group B 4 patients developed keloid 6 months after surgery

CONCLUSIONS

➢ Vitamin E has an **emollient effect** on the skin and the absence of water in the formulation prevents bacterial proliferation, enhancing the barrier function of the skin
➢ Topical Vitamin E formulation has been reported to **help wound healing**, because it inhibits collagen synthesis and reduce both fibroblast proliferation and inflammation
➢ Post-operative topical treatment improved skin protection and resistance to external insults, providing a most healing environment that **enhanced epithelialization**
Topical application of Lipophilic Anhydrous Gel rich in Vitamin E in the management of scars in patients surgically treated for neck cysts

N. Zampieri, R.L. Castellani*, F.S.Camoglio
Department of Surgical Sciences-Paediatric Surgical Unit, University of Verona-Italy; *Department of Surgery, Casa di Cura San Francesco Hospital, Verona, Italy

BACKGROUND-INTRODUCTION-AIMS

One of the main problems of elective surgery is the cosmetic result. Vitamin E acetate is promptly absorbed by the skin. The human skin has specific enzymes to transform vitamin E acetate (cholesterol acetate) into vitamin E (tocopherol). Pure topical vitamin E has an emollient effect on the skin and the absence of water also prevents bacterial proliferation, enhancing the barrier function of the skin. Topical formulations of vitamin E have been promoted to help wound healing, presumably because they inhibit collagen synthesis and reduce both fibroblast proliferation and inflammation. This study aims to determine the effects of topical vitamin E on cosmetic results in patients surgically treated for neck cysts.

MATERIALS AND METHODS

Between May 2010 and May 2012 Topical vitamin E was used on the intended incision site for patients with neck cysts for at least 15 days, thrice daily, before surgery and for at least 30 days, twice daily, after surgery (group A). The control group received topical petrolatum-based ointment (group B). The study was approved by the internal scientific research board. Oral and written consent was obtained by each parent. Inclusion criteria for the study were as follows: need of elective surgery; no previous surgery; no burns; no keloids due to previous trauma; no systemic diseases; no skin diseases or infections and no previous use of topical steroids or drugs. Exclusion criteria for both groups were as follows: patients with atopic eczema or other dermatitis. After obtaining informed consent from their parents prior to surgery, patients were randomised by an external surgeon in one of the two study groups at the time of their first visit at the outpatient department, depending on their day of birth, even (group A) or odd (group B).

The Lipophilic Anhydrous Gel rich in Vitamin E was applied by the patients' parents on the intended incision site through manual massage of the area for some seconds until it was completely absorbed. After surgery, it was applied by the parents for at least 30 days, twice daily, using the same procedure starting from day 1. Group B underwent the same surgical procedure but received topical applications of a standard petrolatum-based ointment (mineral oil, fragrances and water) commonly used for skin, before and after surgery following the same application schedule (massage of the area for some seconds until complete absorption) as group A (pre and postoperative application). All sutures were intradermal and performed by the first of the authors using monofilament (size 5/0) rapid-absorption material with a simple technique. The synthetic absorbable sterile surgical suture material was composed of a copolymer made from 90% glycolide and 10% L-lactide. Patients did not receive any dressing or drugs after wound closure. At the end of topical treatment and after 6 months, parents were asked to fill out a questionnaire based on the Vancouver Scar Scale.

RESULTS

During the study period 28 patients were treated, 15 patients were enrolled in group A and 13 in group B. No patients in group A developed keloids. All patients considered the cosmetic results very good. No patients had wound infection. In the control group, 9 patients considered the cosmetic results very good and 4 patients developed keloids after 6 months. There were no cases of wound infection. None of the patients enrolled in the study (group A) reported adverse events such as hyperpigmentation, stinging, burning or irritation related to this topical treatment. Keloids developed 6 months after surgery (p < 0.05).

DISCUSSION

Vitamin E, first described in 1922 by Evans and Bishop as an essential micronutrient for reproduction in rats, is a fat soluble vitamin that is found in nuts, oil seeds, sunflower seeds, whole grains, wheat germ and spinach. The main function of vitamin E is to maintain the integrity of the intracellular membrane by protecting its physical stability and providing a defence against any tissue damage caused by oxidation. Vitamin E appears to act through several mechanisms such as immunomodulation and antiplatelet effect. Many controlled studies failed to show that topical vitamin E can be useful to prevent scars. These reviews showed cases of large surgical incisions performed to excise tumours or carried out during chest surgeries, or cases of topical applications of vitamin E on burn patients. We believe that all negative results showed by these authors are related to the specific indications for use of topical vitamin E, to the surgical incisions performed and also to the site of incision and type of sutures used. Preoperative application is done for skin rehydration to improve elasticity and resistance, with faster physiologic healing. Postoperative topical treatment: improved skin protection and resistance to external insults, providing a moist healing environment that enhanced epithelialisation. It is clear that a well done intradermal suture is essential for cosmetic results.

REFERENCES

### LIPOSCAR MEDERMA MEDERMA FOR KIDS SCAR GEL WALGREENS KELO-KOTE

#### Key Ingredients
- **Vit E acetate**
- **Cepalin®, allium cepa (onion extract)**
- **Red onion extract, Aloe barbadensis, Chamomilla extract**
- **Siliclear™ complex**

#### Regulatory Status
- Medical device (EU), or cosmetic
- OTC drug
- 510k medical device

#### Size
- >pack: 5mL, 15mL, 50mL tube
- 20gr (0.70 oz) or 50gr (1.76 oz) tube
- 20gr (0.70 oz) tube for about 3 months for scars up to 3 inches long
- 50gr tube (1.76 oz)
- >6gr (0.2 oz) tube
- >15gr (0.5oz) tube
- >60gr (2 oz) tube

#### Therapy
- >3 times daily for at least 15 days before scheduled surgery
- >2 times daily for at least 30 days after surgery
- >1 x daily for 8 weeks on new scars
- >3 times daily for 8 weeks on new scars
- >3 times daily for 3-6 months for old scars
- Rub into the scar 3-4 times a day for 8 weeks on new scars, and 3-4 times a day for 3-6 months on existing scars.
- >1 x daily  for 8 weeks on new scars
- >1 x daily  for 3-6 months for old scars
- >3 times daily for 8 weeks on new scars
- >3 times daily for 3-6 months for old scars
- a 15gr tube is enough for 90 days effective treatment of a scar size 3-4 inches / 7.5-10 cm

#### Method of Use
- Apply a small amount of gel with clean fingertip on the affected incision site
- Apply and gently massage into the scar until adsorbed
- Apply and gently massage into the scar until adsorbed
- Apply and gently massage into the scar until adsorbed
- Apply the gel directly to the skin and leave the gel uncovered 5 minutes to dry. Apply once in the morning and once in the evening

#### Claims
- For topical management of and to reduce the appearance of scars on face and body, secondary to trauma of the skin, by injury, burns, or before and after surgery
- >for old and new scars
- >for scars resulting from cuts, scrapes, stitches, burns, bug bites and surgery
- >effective treatment for the reduction of the appearance of scars including color and texture
- >for old and new scars
- >low price
- For topical management and prevention of abnormal scars (hypertrophic & keloids), it reduces redness and discoloration and flattens raised scars

#### Notes
- >clinically proven
- >no parabens
- >no preservatives
- >no fragrances
- >no coloring agents
- >no petrolatum
- >safe for all ages
- >not greasy
- >patented composition
- >not for open wounds
- >for use on kids between 2 ans 12 years
- >kid-friendly formula
- >not for open wounds
- >for use on kids between 2 ans 12 years
- >comparable to Mederma
- >safe on skin
- >squeeze tube
- >patented composition
- >does not feel tacky or sticky to the touch
- >clinically proven
- >transparent & odourless
- >suitable for use in children

#### Price USA
- >Suggested $ 80 to $ 100 50mL tube
- $16,44 to $ 21,84 20gr tube
- $15,99
- >$ 21,99 6gr tube
- >$ 37,95 15gr tube
- $22,99
- $ 34,96 50gr tube
- >$ 109,99 60gr tube
### SHEETS

<table>
<thead>
<tr>
<th>CICA CARE SILICONE GEL</th>
<th>GEL MATE SILICONE SHEETS</th>
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<tbody>
<tr>
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<tr>
<td>Silicone membrane &amp; gel combination</td>
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<td><strong>THERAPY</strong></td>
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<tr>
<td>When used correctly, therapy lasts 2-4 months</td>
<td>Long-term use</td>
</tr>
<tr>
<td><strong>METHOD OF USE</strong></td>
<td></td>
</tr>
<tr>
<td>Cut gel sheet to fit scar with a small overlap over the surrounding skin after cleaning scar; then apply gel sheet</td>
<td>Trim to a size slightly larger than the scar</td>
</tr>
<tr>
<td><strong>CLAIMS</strong></td>
<td></td>
</tr>
<tr>
<td>&gt; reduces the appearance of dark, raised scars</td>
<td>Medical grade silicone gel sheeting for scar:</td>
</tr>
<tr>
<td>&gt; painless</td>
<td>it helps the appearance of existing scars and may prevent the formation of keloid and hypertrophic scars</td>
</tr>
<tr>
<td><strong>NOTES</strong></td>
<td></td>
</tr>
<tr>
<td>&gt; washable</td>
<td>&gt; flattens and softens raised scars</td>
</tr>
<tr>
<td>&gt; reusable</td>
<td>&gt; increases rate of healing</td>
</tr>
<tr>
<td>&gt; self-adherent</td>
<td>&gt; reduces itching</td>
</tr>
<tr>
<td>&gt; wear time has to be increased by 2 hours per day</td>
<td>&gt; hydrating</td>
</tr>
<tr>
<td></td>
<td>&gt; long lasting</td>
</tr>
<tr>
<td><strong>PRICE USA</strong></td>
<td></td>
</tr>
<tr>
<td>$ 51,89</td>
<td>$ 12,03 to $ 124,95</td>
</tr>
</tbody>
</table>
### SCAR TREATMENT KIT

<table>
<thead>
<tr>
<th>KEY INGREDIENTS</th>
<th>Benzalkonium Chloride (0.01%) impregnated silicone occlusive gel sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>REGULATORY STATUS</td>
<td>RX</td>
</tr>
</tbody>
</table>
| SIZE             | >SkinSational Scar Massager  
                  >Sacred Earth Lotion  
                  >Sacred Earth Oil  
                  >Gel Mate Silicone Sheeting |
| THERAPY          | NOT AVAILABLE                                                             |
| METHOD OF USE    | Use the massage lotion, oil and SkinSational massager to moisturize and soften the area; smooth your scars with Gel Mate silicone gel sheeting |
| CLAIMS           | Kit that reduces formation and improves the appearance of scars |
| NOTES            | >unscented  
                  >hypoallergenic  
                  >paraben-free |
| PRICE USA        | $ 24.82 |

### COMPLETE SCAR CARE TREATMENT

| REGULATORY STATUS | OTC |
| SIZE             | >Silicone gel pads  
                  >Medicalyl E-sil solution with Vitamin E |
| THERAPY          | At least 90 days |
| METHOD OF USE    | Cut the gel pad as needed to fit the scar red area, for best results wear the gel up to 12 hours per day for 90 days (for at minimum 8 hours per day); use E-sil solution when not using the pad |
| CLAIMS           | >Scar reduction treatment  
                  >Improves colour and texture of old and new scars  
                  >Flattens any type of scars |
| NOTES            | >patented  
                  >FDA approved  
                  >Latex-free |
| PRICE USA        | $ 19.99 |
# KEY BENEFITS

<table>
<thead>
<tr>
<th>COMPLETELY NATURAL &amp; SAFE</th>
<th>NO parabens, NO coloring agents, NO perfumes, Nickel tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLINICALLY PROVEN</td>
<td>428 patients treated, with <strong>96% POSITIVE RESULTS</strong> and <strong>NO ADVERSE EFFECTS</strong></td>
</tr>
<tr>
<td></td>
<td>90 patients treated vs Dermatix, with <strong>VERY HIGH SATISFACTION AMONG PATIENTS</strong> and <strong>NO ADVERSE EFFECTS</strong></td>
</tr>
<tr>
<td></td>
<td>67 patients treated vs an emollient cream with <strong>GOOD RESULT</strong> and no discomfort during topical application</td>
</tr>
<tr>
<td></td>
<td>28 patients treated vs petrolatum based emollient with <strong>NO KELOID FORMATION</strong></td>
</tr>
<tr>
<td>UNIQUE INDICATIONS</td>
<td>clinically proven &amp; prevention indications</td>
</tr>
</tbody>
</table>

**LIPOSCAR**