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The Effect of Alpine Rose Plant Stem Cell Plus Magnolia Extract on Skin Irritation Following Skin Laser Procedures

■ Introduction

Laser procedures are widely used in skin conditions and disorders such as acne, scar and colloid, pigmentation, hair removal, skin aging and wrinkle, varicose etc (1-3). One of the most prevalent adverse effects of laser procedures is skin irritation and inflammation (4-6). Many drugs including oral medications or skin ointments are used for reduce this irritation, but they have side effects or may alter the outcome of laser procedures (7, 8). Nowadays new ingredients are used for this purpose. This study was conducted to evaluate of the effect of new herbal ingredients, Alpine Rose plant stem cell and Magnolia extract, on post laser skin irritation.

■ Methods and Materials

In a clinical trial study, 96 female patients aged from 20 to 40 years old with moderate *acne rosacea* were participated in this study. All subjects were aware about study and filled out an informed consent form. A brief medical history and demographic data was obtained from all subjects. All participants was underwent KTP laser procedure in a laser clinic by a dermatologist. Next day after laser therapy all subjects were examined by the dermatologist to determine the post-procedure skin irritation. Skin erythema, as an indicator for skin irritation, was graded by the dermatologist according to visual evaluation into four scores (0-4). Then subjects were randomly divided into an experimental (n=49) and a control (placebo) (n=47) group. Control group

was treated by vehicle cream as placebo and experimental group was treated by a cream composed of vehicle ingredient, Alpine Rose plant stem cell and Magnolia extract. The creams were applied on

irritant skin twice a day for five days after laser procedure. All patients and the physician were blinded about the kind of creams. At the 6th day after laser therapy and application of creams, the sub-

Abstract

Laser procedures are widely used in skin conditions and disorders. One of the most prevalent adverse effects of laser procedures is skin irritation. This study was conducted to evaluate of the effect of new herbal ingredients, Alpine Rose plant stem cell and Magnolia extract, on post laser skin irritation. 96 female patients with acne were participated in this study. They were randomly divided into experimental and control group after KTP laser procedure. Control group was treated by vehicle cream and experimental group was treated by Alpine Rose plant stem cell and Magnolia extract. Skin erythema, as an indicator for skin irritation, was graded by a dermatologist according to visual evaluation into four scores (0-4). The results was collected and analyzed by appropriate statistical methods. All patients showed a mild to moderate skin erythema after KTP laser therapy (mean±SD=1.84±0.61). The mean score of erythema in control group after five day treatment was 1.11±0.43 and in the experimental group was 0.46±0.39 (P=0.038). Skin laser therapy is the one the most common procedure in dermatocosmetic fields. Although these procedures almost are safe but some adverse effects such as skin irritation may occur in patients. This study showed that the combination of two herbal ingredients including Alpine Rose plant stem cell and Magnolia extract could reduce the post laser skin irritation more effective than vehicle cream and no any adverse effect occurred on skin and outcome of laser procedure.

jects were re-examined by the dermatologist to determine the skin erythema and to evaluate the skin irritation. The recorded results was collected and analyzed by t-student statistical method. The statistical specialist was blinded about groups. All information was confidential.

■ **Results**

The age of participants were ranged from 20 to 40 years old (mean=28.8). Table 1 present the characteristics of subjects. All patients showed a mild to moderate skin erythema after KTP laser therapy (mean±SD: 1.84±0.61). There was no statistical difference between mean of erythema score in experimental and control (placebo) group just after laser therapy (P>0.05). It was significant statistical

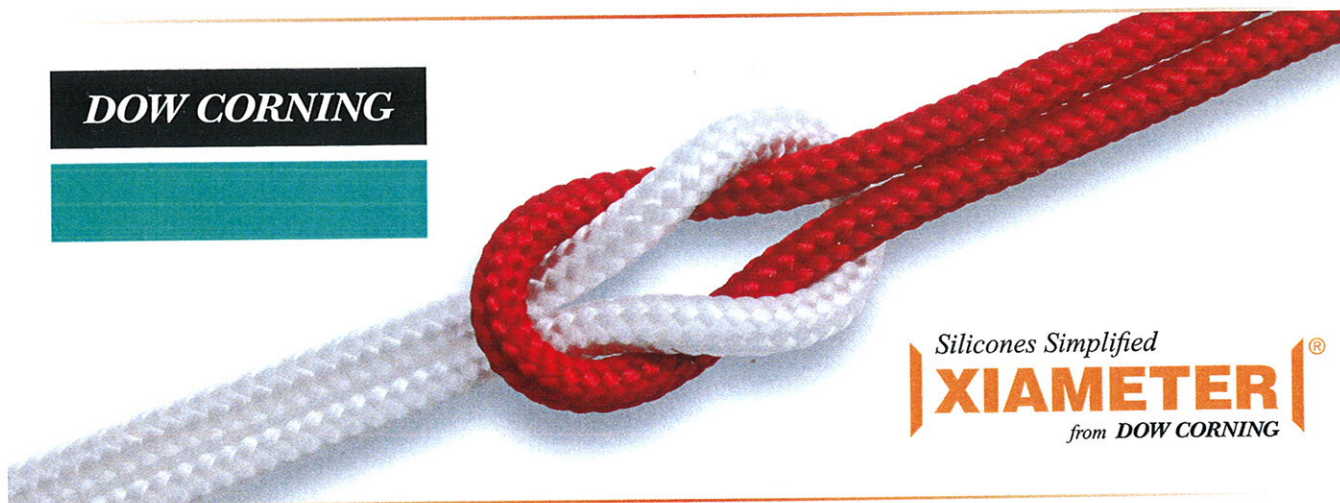
Group Characteristics	Group	
	Experimental	Control
Number of Subjects	49	47
Age (yr)		
Min	21	20
Max	38	40
Mean	31.2	26.4
SD	12.3	13.4

Table 1 Characteristics of total subjects (N=98)

difference of mean of erythema score in experimental group before and after use of Alpine Rose plant stem cell plus Magnolia extract cream (P=0.023) whereas it was no significant statistical difference of mean of erythema score in control

group before and after use of vehicle cream (P>0.05). The mean score of erythema in control group after five day treatment was 1.11±0.43 and in the experimental group was 0.46±0.39 (P=0.038). Table 2 present the analytical results.

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Score of Erythema	Group	
	Experimental	Control
After KTP Laser		
Mean*	1.78	1.90
SD	0.62	0.67
After Treatment by Creams		
Mean**	0.46	1.11
SD	0.39	0.43
* No significant statistical difference between experimental and control group (P>0.05)		
** Significant statistical difference between experimental and control group (P=0.038)		

Table 2 Skin erythema score after intervention (application of creams)

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No any adverse effect was seen in the experimental and control group and outcome of laser therapy on the *acne rosacea* condition was similar in two groups.

Conclusions

Skin laser therapy is the one the most common procedure in dermatocosmetic fields. Although these procedures almost are safe but some adverse effects such as skin irritation may occur in patients. This study showed that the combination of two herbal ingredients including Alpine Rose plant stem cell and Magnolia extract could reduce the post laser skin irritation more effective than vehicle cream and no any adverse effect occurred on skin and outcome of laser procedure.

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