



# Effectiveness of SHEALD™ RECOVERY BALM plus CLEANSING COMPLEX after Fractionated Laser Procedures

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**STUDY OBJECTIVE** – Fractionated laser treatment as well as other cosmetic procedures aim to deliver desirable cosmetic results with restoration of a healthy more youthful skin surface. Patients strongly desire less downtime and fewer complications. This study was performed to determine if using iS CLINICAL®'s SHEALD™ RECOVERY BALM and CLEANSING COMPLEX immediately following fractionated laser treatments furthered these goals of both physician and patient.

**STUDY DESIGN** – Plastic surgeons and aesthetic dermatologists were asked to evaluate SHEALD in combination with CLEANSING COMPLEX when used immediately after fractional laser treatments. SHEALD was applied to the treated area every 2-3 hours in a thin layer. A thicker layer was applied at the patient's discretion based on level of discomfort. CLEANSING COMPLEX was used to gently cleanse the treated area 3 times daily after which SHEALD was immediately reapplied. Physicians were asked to use this regimen instead of their previously preferred wound care products and evaluate results in these parameters:  
1) peeling/flaking; 2) occurrence of milia;  
3) speed of re-epithelialization.

**SIGNIFICANCE OF STUDY** – Both physicians and patients continually search for products and procedures that decrease the rate of complications, improve post-procedure results, lessen downtime, and minimize patient discomfort. The parameters evaluated during this study are of primary importance in achieving favorable post-fractional laser results.



Figure 1. Percentage of parameter improvement using SHEALD™ in conjunction with CLEANSING COMPLEX. Patient improvement reported by physician survey utilizing a ranking poll.

## RESULTS AND CONCLUSIONS –

**Milia** are small white bumps occurring during the initial days after laser treatments and are caused by micro-disruptions in the hair follicle. They consist of tiny cysts filled with keratin debris. Milia are temporary but patients often find them distressing, resulting in scratching or popping of the milia unit. Complications such as infections or scarring may then ensue. Practitioners often remove milia in the office although this may extend procedure recovery time. The incidence of milia reported by various authors following fractional laser treatments is in the range of 14-15 percent and sometimes as high as 19 percent<sup>1</sup> of all patients having the procedure. With combined use of SHEALD and CLEANSING COMPLEX, the incidence of milia decreased 85 percent compared to the usual frequency; in other words, the occurrence of milia dropped to 2-2.8 percent of all patients. Such a dramatic reduction in occurrence of milia directly supports the effectiveness of CLEANSING COMPLEX's mechanism of gentle cleansing within the follicular unit, as well as SHEALD's mechanism for rapid re-epithelialization and healing. Results indicate SHEALD and CLEANSING COMPLEX markedly reduce the occurrence of post-procedural milia.

<sup>1</sup> TS Alster, AI Metelitsa. 2010. Fractionated Laser Skin Resurfacing Treatment Complications: A Review. Dermatologic Surgery 36(3):299-306.



**Peeling and/or flaking** are common side effects of laser treatments that increase down time and are often uncomfortable. Fractionated laser treatments aim to reduce the occurrence of peeling or flaking in comparison to previous laser treatments. Peeling and flaking reduce the advantages of newer fractionated laser treatments. The use of SHEALD and CLEANSING COMPLEX improved peeling and flaking by 41 percent and therefore significantly reduced downtime.

**Re-Epithelialization** is a key aspect of a successful outcome following Fractionated Laser treatments. Restoration of healthy skin is the goal of laser treatment. Re-Epithelialization was measured by a 54 percent improvement in rapidity of growth of new overlying epithelium in the treatment area, following the use of SHEALD and CLEANSING COMPLEX. An increased rate of healing significantly improved downtime with this protocol. SHEALD and CLEANSING COMPLEX would therefore be expected to decrease the risk of adverse reactions by accelerating healing of the treatment area, maximizing a successful outcome.

**No Adverse Effects** including redness, irritation, stinging, burning or itching were reported when SHEALD was placed on open skin (ablative procedures). SHEALD was found to be safe and effective for both ablative and non-ablative procedure types.

**SUMMARY** – Physicians reported improved results in the successful healing of treatment areas using SHEALD and CLEANSING COMPLEX as post-procedural care products. The use of SHEALD plus CLEANSING COMPLEX decreased the occurrence of milia and peeling and induced more rapid re-epithelialization in fractionated laser patients.

## References

- N Abbasi, KA Arndt, JS Dover, MA Durfee, MS Kaminer, BC Latowsky, JL Macgregor, TE Rohrer, SR Tahan, NO Wesley. 2012. A Randomized Controlled Trial of Four Ablative Fractionated Lasers for Photoaging: A Quadrant Study. *Dermatologic Surgery* 38(9):1477-89.
- PA Adamson, E Brunner, DA Ellis, JN Harlock, J Otolaryngol. 2000. Laser Facial Resurfacing: Patient Survey of Recovery and Results. 29(6):377-81.
- TS Alster, EM Graber, EL Tanzi. 2008. Side Effects and Complications of Fractional Laser Photothermolysis: Experience with 961 Treatments. *Dermatologic Surgery* 34(3):301-7.
- TS Alster, AI Metelitsa. 2010. Fractionated Laser Skin Resurfacing Treatment Complications: A Review. *Dermatologic Surgery* 36(3):299-306.
- TS Alster, M Lazarus, EL Tanzi. 2007. The Use of Fractional Laser Photothermolysis for the Treatment of Atrophic Scars. *Dermatologic Surgery* 33(3):295-9.
- TS Alster, EL Tanzi. 2003. Side Effects and Complications of Variable-Pulsed Erbium: Yttrium-Aluminum-Garnet Laser Skin Resurfacing: Extended Experience with 50 Patients. *Plastic Reconstructive Surgery* 111(4):1524.
- J Drugs, CW Hanke, EP Tierney. 2010. Treatment of CO2 Laser Induced Hypopigmentation with Ablative Fractionated Laser Resurfacing. *Dermatology Case Report and Review of Literature* 9(11):1420-6.
- DJ Goldberg, J Man. 2012. Safety and Efficacy of Fractionated Bipolar Radiofrequency Treatment in Fitzpatrick Skin Types V-VI. *Cosmetic Laser Therapy* 14(4):179-83.
- MP Goldman, JD Peterson, O Shamsaldeen. 2001. The Adverse Events of Deep Fractional CO(2): A Retrospective Study of 490 Treatments in 374 Patients. *Lasers and Surgical Medicine* 43(6):453-6.