AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

EFFICACY OF MOISTURIZER CONTAINING 5% PANTHENOL, MADECASSOSIDE, AND COPPER-ZINC-MANGANESE VERSUS 0.02% TRIAMCINOLONE ACETONIDE CREAM IN DECREASING ADVERSE REACTION AFTER FRACTIONAL ABLATIVE LASER

Suparuj Lueangarun [(1)] - Aphinut Srituravanit [(1)] - Therdpong Tempark [(2)]

Chulabhorn International College Of Medicine, Division Of Dermatology, Thammasat University, Klonglung [(1)] - Department Of Pediatrics, Faculty Of Medicine, King Chulalongkorn Memorial Hospital, Chulalongkorn University, Bangkok [(2)]

Introduction: Fractional carbon dioxide (FrCO2) laser is effective for atrophic acne scar treatment, but unavoidable downtime. Meanwhile, postoperative topical steroid decreases the downtime, yet increases other steroid-related side effects.

Objective: To evaluate the efficacy and safety of moisturizer containing 5% panthenol, madecassoside, and copper-zinc-manganese (experimental cream) versus 0.02% Triamcinolone acetonide (TA) cream in decreasing adverse effects and downtime after FrCO2 laser, with wound healing improvement and post-inflammatory hyperpigmentation (PIH) prevention.

Materials and Methods: We conducted a double-blind, split face, randomized controlled trial in 20 subjects receiving FrCO2 laser on both sides of the faces and randomly treated with two post-treatment regimens on each side for 7 days. Clinical, expert panel assessment of photography, downtime, side effects and biometric assessment for erythema and melanin were evaluated on baseline, immediately after treatment, day 3, 5, 7, 14, 30 and, 60 after treatment.

Results: Both experimental cream (EC) and 0.02% TA cream could significantly reduce post-laser downtime including swelling, redness, crusting, and scaling in 5-7 days, with comparable efficacies in decreasing downtime and adverse reactions, as well as wound healing improvement and lower PIH without statistically significant difference between the 2 treatments. The incidence of PIH was 60% in EC treated groups with minimal intensity.

Conclusion: The moisturizer with anti-inflammatory ingredients could be a novel treatment modality for reduction of post-ablative laser downtime by using non-steroidal anti-

inflammatory agents to avoid adverse effects and improve wound healing process with lower PIH.