

**A PILOT STUDY OF INTENSE PULSED LIGHT
COMBINED WITH 0.5% LIPOSOME
ENCAPSULATED 5-ALA FOR THE TREATMENT OF
FACIAL ACNE IN ASIAN**

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Background and Objectives: Liposomes are used in spray form to encapsulate and carry 5-aminolevulinic acid (ALA) into the epidermis. This enables a reduction in the concentration of topical 5-ALA to 0.5% and reduction in risk of phototoxicity after photodynamic therapy. This study was to evaluate the improvement of inflammatory facial acne in Asians using IPL combined with photodynamic therapy using this spray.

Methods: 12 Chinese patients of phototypes IV or V and moderate acne were enrolled in a series of 4 treatments 3 weeks apart with IPL combined with the liposomal 0.5% 5-ALA spray. The entire face was sprayed every 5 minutes for one hour prior to IPL. IPL by the Ellipse Flex system (Danish Dermatologic Development, Denmark) emitting wavelengths of 400–720 nm. Three passes of 5 J/cm² and pulse duration of 50 ms were used. Fluorescence by protoporphyrin IX and acne lesion counts were evaluated by blinded assessment using standardized and UV photography before each treatment and 4 weeks after the final treatment.

Results: Increased fluorescence was generally noted in patients 5 to 15 minutes at the end of spraying. Preliminary data indicated some degree of improvement in acne lesions.

Conclusion: The use of liposomal 5-ALA spraying at 5 minute-interval for one hour in the treatment of facial inflammatory acne in Asian with IPL seems to be promising.