

# Photopneumatic (PPx™) Pore-Cleansing Acne Treatment™: A Breakthrough Treatment Option for Non-Responders to Acne Therapies (Abstract)

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## BACKGROUND & OBJECTIVES:

Non ablative laser treatments are becoming increasingly popular for the treatment of acne. The purpose of this study was to evaluate the safety and efficacy of a novel device that combines broadband light with pneumatic energy (vacuum) for the painless treatment of mild to severe facial acne. Pneumatic energy elevates targets closer to the skin's surface while momentarily reducing the melanin and blood concentration in the skin. Upon the activation of vacuum, sebaceous glands are elevated closer to the skin's surface and opened up while the follicular ostia is dislodged. Light energy is applied to the exposed sebaceous gland, theoretically resulting in its shrinkage and the gland is returned to normal position.

## STATEMENT OF RESEARCH DESIGN / METHODOLOGY:

13 patients male and female between 18 and 37 years of age were recruited via word of mouth advertising from the patient base of our private clinic. All

recruited patients currently suffered from a range of acne including inflammatory acne, comedonal acne and pustular acne. Patients who had been on any acne medication (topical or oral) or therapy for 6 months prior to the start of the study were automatically excluded. Skin was cleaned with warm water to soften the lesion prior to treatment. Each patient received 4 treatments at weekly intervals. No topical anesthesia or treatment gels were applied prior to treatment. Physician and patient evaluations of improvement were recorded after every treatment. Clinical photographs and lesion counts were also taken for evaluation purposes prior to each treatment. Photographs were taken at follow up, lesion counts were performed and patient evaluations were noted. Clinic staff kept records of other clinical observations including possible erythema, purpura, and comfort level. Follow up was conducted at 1 month and 2 months post final treatment. Blinded reviewers independently assessed improvement based on clinical photographs.

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## SUMMARY OF RESULTS OR FINDINGS:

11 / 13 patients (Skin types I – V) completed all four treatments. 64% of patients (7 / 11) who were non-responders to multiple other modalities for the treatment of acne including orals, topicals and lasers experienced greater than 75% reduction in lesions at 2 month follow up. 4/4 patients who had experienced other treatment modalities experienced 88% reduction in lesions at 2 month follow up. Patients and evaluating physicians noted an almost immediate drying and flattening of lesions between 24 – 48 hours post treatment. Patient's subjective evaluations of the treatment included a reduction in pore-size, improvement in skin texture or smoothness and a general reduction in the oiliness of the skin. 100% of patients described the treatment as being painless.

## STATEMENT OF CONCLUSIONS

### REACHED:

Photopneumatic Therapy (PPx), a combination of broadband light and pneumatic energy, produced significant improvement in acne lesions in those patients who were non-responders previously to traditional modalities for the treatment of acne including orals, topicals and lasers. The study also demonstrated improvement in acne lesions in those patients who had received other forms of treatment but had been dissatisfied with outcomes. Photopneumatic Therapy presents a unique painless option for the treatment of a broad range of acne.