



ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

THE EFFICACY OF MICROFOCUSED ULTRASOUND IN THE MANAGEMENT AND CONTROL OF SEBORRHEA: A PILOT STUDY

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Introduction: Seborrhea is a common dermatologic problem associated with major skin diseases including acne vulgaris. Its control and management has been challenging. Currently, there is no standard of care in the management of seborrhea. Microfocused ultrasound (MFU) uses ultrasound waves that produce thermal coagulation points leading to collagen denaturation and contraction of the target area. MFU may be explored as a novel option for the management of seborrhea by targeting the location of the sebaceous glands.

Objective: To determine the efficacy and safety of MFU as a treatment option for the management of seborrhea

Materials and Methods: This is an open-labeled, prospective, quasi-experimental study. Twelve patients were selected based on the inclusion and exclusion criteria. Baseline average nasal sebum levels was measured via the use of sebumeter. MFU was applied over the target area using energy of 1.0 joule, length of 15 mm, depth of 1.5 mm and frequency of 10 mHZ. Post-MFU sebum measurement was taken at weeks 1, 4, 8 and 12. Adverse effects were observed.

Results: Using paired t-test, significant difference was noted in sebum level reduction at weeks 1 ($p=0.00012$), 4 ($p=0.00443$) and 8 ($p=0.03269$) compared to baseline (p -values <0.05). There was no significant difference in the sebum reduction level at week 12 ($p=0.25086$) compared to baseline (p -value >0.05).

Conclusion: There was noted significant sebum level reduction from baseline compared to weeks 1 to 8 post-treatment of MFU. Adverse effects include transient erythema and pain. MFU may be a promising alternative for the control of seborrhea.

