



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

EFFICACY AND TOLERABILITY OF PHOTODYNAMIC THERAPY WITH 5% AMINOLAEVULINIC ACID (ALA) IN THERMOSETTING GEL IN INFLAMMATORY ACNE: A CASES SERIES OF 150 SUBJECTS

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Background: Acne vulgaris is a very common chronic inflammatory skin disease. Photodynamic therapy (PDT) with 20% aminolaevulinic acid (ALA) has shown to be effective in the treatment of inflammatory acne. Skin tolerability, however, could be a limiting factor for the use of this approach. A new formulation of 5% ALA in thermosetting gel has been recently available. This formulation allows a more convenient application procedure without occlusion and better and more efficient release of the active compound.

Study aim: This is a retrospective collection of 150 subjects treated with ALA-PDT for 3 years documenting the efficacy, and tolerability of red-light (630 nm) PDT with a new 5-ALA "low-dose" topical gel formulation (5%) in the treatment of inflammatory moderate-to-severe acne vulgaris (AV).

Subjects and methods: A total of 150 subjects (81 men and 69 women with moderate/severe inflammatory AV of the face (mean age: 24±8 years) were evaluated during the period 2016-2018. The primary outcome was the evolution of total acne inflammatory lesion count (TLC) at baseline and after an average of three, 630-nm, 11-minute, PDT sessions, performed every 10 days. Skin tolerability was assessed during PDT sessions with a patient-reported discomfort level evaluation score from 0 (no discomfort at all) to 3 (severe discomfort).

Results: At baseline, the TLC was 22±6. After the last PDT session, the TLC was significantly reduced to 4.4±2, representing an 80% reduction (P = .0001, mean difference 17.5; 95% CI of the difference: 11.7-23.3). The procedure was in general very well tolerated with a discomfort mean level score of 0.5±1.

Conclusion: This cases series of 150 subjects supports the efficacy of 5% ALA thermosetting gel red-light PDT in inflammatory acne of the face with a relevant clinical improvement of inflammatory lesions with a very good tolerability profile. Clinical





improvement was maintained in the medium term.

