

FLUORESCENT LIGHT ENERGY COMBINED WITH SYSTEMIC ISOTRETINOIN: A 52-WEEK FOLLOW-UP EVALUATING EFFICACY AND SAFETY IN TREATMENT OF MODERATE-SEVERE ACNE

RUSO, A. *ET AL.*, 2021

INTRODUCTION

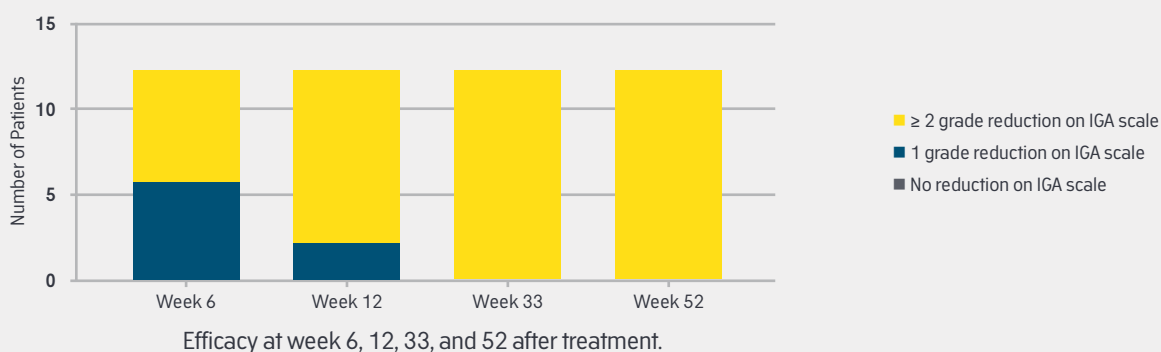
The complexity of acne often makes combination therapy highly beneficial. We here show that combining Fluorescent Light Energy (FLE) with low-dose isotretinoin or tetracycline leads to clearance of acne without significant adverse events.

The objective was to assess and describe the efficacy and safety of FLE in combination with low-dose isotretinoin or tetracycline in cases of moderate to severe acne (IGA 3-4):

- 12 patients: 50% with moderate acne (IGA 3) and 50% with severe acne (IGA 4).
- Efficacy evaluations at week 6, 12, 33 and 52 were performed using IGA scale. Patients were treated with a double FLE treatment session (two sessions with a 2 hour break in-between) once a week for 6 weeks (total of 12 FLE treatment sessions).
- Another double FLE treatment session was performed one month after the end of the treatment.
- Systemic treatment started the same day as FLE treatment with 5 mg/day of isotretinoin or 300 mg/day of tetracycline.

RESULTS

FLE TREATMENT COMBINED WITH LOW-DOSE ISOTRETINOIN OR TETRACYCLINE



6 weeks after treatment was initiated, all patients showed substantial improvements in the clinical appearance of the skin. 50% of the cases showed a marked improvement by 2-grade according to IGA scale. The remaining 50% presented a 1-grade improvement according to the IGA scale.

At the w12, 75% of patients showed a reduction in clinical severity to IGA 1. The remaining 25%, showed improvements corresponding to 1- to 2-grade IGA reduction.

At w33 and 52, patients treated with FLE + isotretinoin reached and maintained an IGA score of 0, whereas the 3 patients treated with FLE + tetracycline presented an IGA score of 1.



Baseline Week 6 Week 12 Week 33 Week 52

20-year-old female with baseline acne severity of IGA 4, previously undergoing topical therapy without effect. Treated with FLE + isotretinoin.



Baseline Week 6 Week 12 Week 33 Week 52

18-year-old male with baseline acne severity of IGA 4, previously treated with topical tetracycline without effect and discontinued isotretinoin due to elevated levels of creatine phosphokinase, and thereby not eligible to standard dose of isotretinoin. Treated with FLE + isotretinoin.



Baseline Week 6 Week 12 Week 33 Week 52

18-year-old male with baseline acne severity of IGA 4, previously undergoing topical tetracycline without effect. Treated with FLE + isotretinoin.



Baseline Week 6 Week 12 Week 33 Week 52

18-year-old male with baseline acne severity of IGA 4, previously treated with topical tetracycline without effect and discontinued isotretinoin due to elevated levels of creatine phosphokinase, and thereby not eligible to standard dose of isotretinoin. Treated with FLE + isotretinoin.

SAFETY

All patients reported high satisfaction rates with the treatment results. No severe or intolerable adverse effects were reported, and no patients discontinued the study.

CONCLUSION

The results support the combination of FLE treatment with low-dose isotretinoin or tetracycline in moderate to severe acne. According to protocol, systemic treatments did not negatively interfere with FLE treatment, but seemingly enhance its efficacy in a safe and long-term manner. Efficacy evaluation at week 12 revealed that 75% of the treated cases dropped to an IGA grade of 1, which could likely not be ascribed to low-dose systemic treatment alone, further substantiating the positive effect of the tested FLE-combination therapy. For more information and before/after pictures, visit the original [publication](#).