ABSTRACT

BACKGROUND: Systemic and topical antimicrobials are effective in the treatment of inflammatory acne vulgaris; however, widespread use of these agents is becoming increasingly associated with the emergence of resistant pathogens raising concerns about microorganism resistance and highlighting the need for alternative nonantimicrobial agents for the treatment of acne. Nicotinamide gel provides potent antiinflammatory activity without the risk of inducing bacterial resistance.

METHODS: In our double-blind investigation, the safety and efficacy of topically applied 4% nicotinamide gel was compared to 1% clindamycin gel for the treatment of moderate inflammatory acne vulgaris. Seventy-six patients were randomly assigned to apply either 4% nicotinamide gel (n = 38) or 1% clindamycin gel (n = 38) twice daily for 8 weeks. Efficacy was evaluated at 4 and 8 weeks using a Physician’s Global Evaluation, Acne Lesion Counts, and an Acne Severity Rating.

RESULTS: After 8 weeks, both treatments produced comparable (P = 0.19) beneficial results in the Physician’s Global Evaluation of Inflammatory Acne; 82% of the patients treated with nicotinamide gel and 68% treated with clindamycin gel were improved. Both treatments produced statistically similar reduction in acne lesions (papules/pustules; -60%, nicotinamide vs. -43%, clindamycin, P = 0.168), and acne severity (-52% nicotinamide group vs. -38% clindamycin group, P = 0.161).

CONCLUSIONS: These data demonstrate that 4% nicotinamide gel is of comparable efficacy to 1% clindamycin gel in the treatment of acne vulgaris. Because topical clindamycin, like other antimicrobials, is associated with emergence of resistant microorganisms, nicotinamide gel is a desirable alternative treatment for acne vulgaris.