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## **Timolol for post-acne erythema**

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## LETTER TO THE EDITOR

# Timolol for post-acne erythema

Dear sir,

We read with great interest the article published in *Journal of Cosmetic Dermatology* by Kalantari et al.<sup>1</sup> regarding treatments for post-acne erythema (PAE). One treatment we believe they have overlooked is the use of topical timolol. Timolol is a simple, low-cost treatment with few adverse effects reported in dermatology patients especially when applied topically and mucous membranes are avoided. Through the non-selective blockade of  $\beta$ -adrenergic receptors, timolol suppresses inflammatory cytokines and causes vasoconstriction, all of which alleviates erythema and disease severity in chronic inflammatory skin conditions such as acne and rosacea.<sup>2</sup> In a case report, Afra and colleagues investigated the impact of ophthalmic solution of topical timolol maleate 0.5% when applied once daily.<sup>3</sup> Following a 12-week treatment period, a significant clinical improvement of the post-inflammatory erythema of acne was observed on dermoscopic evaluation with only shallow rolling scars left but no pigmentation. Importantly, no adverse effects were noted. Moreover, Al Mokadem et al.<sup>4</sup> suggested adding topical timolol to the standard treatment protocol of acne after they observed improvement in acne comedones and resistant inflammatory erythema. In a multicenter study over 8 weeks, 42 patients with mild acne (measured via Global Acne Grading System) and 16 patients with moderate acne applied 4–8 drops of topical timolol maleate 0.5% daily demonstrated mean percentage improvement in comedones, papules, and pustules of 28.17%, 26.81%, and 16.05%, respectively. The adverse effects were tolerable with dryness being the most frequent complaint. Finally, timolol has been suggested to be beneficial in the treatment of erythematotelangiectatic rosacea following a split-face, randomized trial of 8 patients over 16 weeks, in which 0.5% gel-forming solution was used twice daily.<sup>5</sup>

## CONFLICT OF INTEREST STATEMENT

None.

## DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

## CONSENT FOR PUBLICATION

All authors have approved this final submitted version of the manuscript and consent to its submission for consideration of publication.

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## REFERENCES

- Kalantari Y, Dadkhahfar S, Etesami I. Post-acne erythema treatment: a systematic review of the literature. *J Cosmet Dermatol.* 2022;21:1379-1392.
- Alzaid M, Al-Naseem A, Al-Niaimi F, Ali FR. Topical timolol in dermatology: infantile haemangiomas and beyond. *Clin Exp Dermatol.* 2022;47:819-832.
- Afra TP, Razmi TM, De D. Topical timolol for postacne erythema. *J Am Acad Dermatol.* 2021;84:e255-e256.
- Al Mokadem SM, Ibrahim AM, El Sayed AM. Efficacy of topical timolol 0.5% in the treatment of acne and rosacea: a multicentric study. *J Clin Aesthet Dermatol.* 2020;13:22-27.
- Tsai J, Chien AL, Kim N, et al. Topical timolol 0.5% gel-forming solution for erythema in rosacea: a quantitative, split-face, randomized, and rater-masked pilot clinical trial. *J Am Acad Dermatol.* 2021;85:1044-1046.

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