



## BRIEF REPORT

# Perioral Dermatitis Successfully Treated with Topical Ivermectin

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Dear Editor:

Perioral dermatitis (POD), also called rosacea-like dermatitis or periorificial dermatitis, is a common skin disease. It is characterized by scaly erythema, partly with small, erythematous papules or papulovesicles located periorally and can be around the nose or eyes as well<sup>1</sup>. It mostly affects females between the ages of 16 to 50 years<sup>2</sup>.

A common trigger factor is an exaggerated skincare, especially application of greasy or sealing facial creams, as well as topical glucocorticosteroids. Many other factors are also being discussed, such as parasites and infections with bacteria or fungi.

Treatment of POD requires discontinuation and strict avoidance of all topical glucocorticoids, cosmetics and ointments. Whereas various pharmaceuticals are used as therapeutic approach, there exist no gold standard and approved therapy for POD. The treatment is mainly based on clinical experience<sup>3</sup>. Here we present a case of a male patient with POD and good response to a topical ivermectin treatment. We received the patient's consent form about publishing all photographic materials.

An 18-year-old male patient without systemic diseases and with an unremarkable medical history first presented to his general practitioner with perioral redness. After using

the prescribed mometasone furoate ointment (1 mg/g) for two weeks once daily, this treatment led to an aggravation of his skin condition. The patient came to the University Hospital of the LMU Munich with the typical symptoms of POD: erythematous, scaly perioral skin and forehead, with grouped erythematous, scaly, follicular papules, papulovesicles and papulopustules (Fig. 1A). Bacterial and fungal cultures from facial skin were negative.

The off-label use with a topical calcineurin inhibitor (pimecrolimus cream, 1%) once daily showed no improvement. Thereafter a zero therapy was attempted. The clinical findings deteriorated during zero therapy. Thereafter a therapeutic approach with ivermectin cream (10 mg/g) applied once daily was done. Ivermectin cream is approved in adults for topical treatment of inflammatory lesions of (papulopustular) rosacea and scabies. In this case, ivermectin cream was applied off-label once a day to affected areas (without any systemic medication). On follow-up after 4 weeks, the skin had already considerably improved (Fig. 1B). After 12 weeks of topical treatment with ivermectin cream the rash was no longer detectable (Fig. 1C). Pathogenesis of both POD and rosacea are unknown<sup>4</sup>. The involvement of microbial factors, such as infections with candida, fusiform spirilla or an infection with demodex mites (as in rosacea) are being discussed. The mechanism of action of ivermectin in treatment of rosacea has not yet been fully elucidated. However, ivermectin has an anti-inflammatory, acaricidal and antiparasitic effect<sup>5</sup>. This clinical case provides evidence of the efficacy of ivermectin in the treatment of POD. Ivermectin cream has been shown to have a low skin irritation potential. This easy approach may result in better patient compliance, greater quality of life and higher satisfaction with treatment and thereby support treatment success. Further prospective clinical trials are necessary to confirm the use of ivermectin cream in POD.

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**Fig. 1.** (A) Patient with typical symptoms of perioral dermatitis. (B) Patient after 4 weeks of topical treatment with ivermectin cream (10 mg/g) once daily with considerably improved skin. (C) Patient after 12 weeks of topical treatment with ivermectin cream (10 mg/g) once daily with no longer detectable rash.

## CONFLICTS OF INTEREST

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The authors have nothing to disclose.

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