SHORT COMMUNICATION

Potential Role of Ozenoxacin 1% Cream in the Topical Management of Hidradenitis Suppurativa: A Single-centre Experience (44 patients)

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Topical treatments remain a cornerstone in the management of hidradenitis suppurativa (HS), either as monotherapy or in combination with other agents (1). Among the available topical antibiotics, clindamycin 1% is considered the first-line option, supported by the strongest clinical evidence (1) due to its ability to inhibit bacterial biofilm formation and modulate inflammation. However, some patients may not respond adequately or have contraindications to its use. Ozenoxacin is a non-fluorinated topical quinolone with potent bactericidal activity against both Gram-positive and Gram-negative pathogens. Unlike other fluoroquinolones, ozenoxacin exhibits a lower potential for resistance development, making it a promising candidate for topical treatment in HS. However, research on this topic is scarce (2). The aim of this study is to evaluate the potential role of a 5-day course of topical ozenoxacin 1% cream, applied twice daily, in the treatment of HS.

MATERIALS AND METHODS

An observational, retrospective, single-centre study including patients with mild to moderate-to-severe HS treated with topical ozenoxacin 1% cream between October and December of 2024 was conducted. Patients were divided into 3 groups: topical ozenoxacin as monotherapy, in combination with biological agents, and in combination with systemic antibiotics. Photographs and the following scores were recorded to evaluate the response to ozenoxacin after 5 days of treatment: pain, assessed using the Numerical Rating Scale (NRS), and the degree of suppuration, rated from 0 to 4 as reported by the patient. Additionally, improvements in draining tunnels, abscesses, and flare duration before and after the use of topical ozenoxacin were documented. Hurley stage, affected areas, and previous use of topical clindamycin were also reported. Statistical analysis was performed using IBM SPSS statistics (IBM Corp, Armonk, NY, USA). The Wilcoxon signed-rank test was used to compare paired variables (e.g., pain and suppuration scores before and after treatment). The Kolmogorov–Smirnov test was applied to assess the normality of data distribution. Statistical significance was determined as $p < 0.05$.

RESULTS

A total of 44 patients were included, comprising 23 females and 21 males, with a mean age of 36.21 years. The axillary and inguinal folds were the most commonly affected areas. Hurley stage III was present in 40% of the patients. Thirty-three patients (86%) had previously been treated with topical clindamycin, showing either a partial response or no response at all. The mean pain score decreased from 7.24 to 4.03 after ozenoxacin use and, similarly, the mean suppuration score decreased from

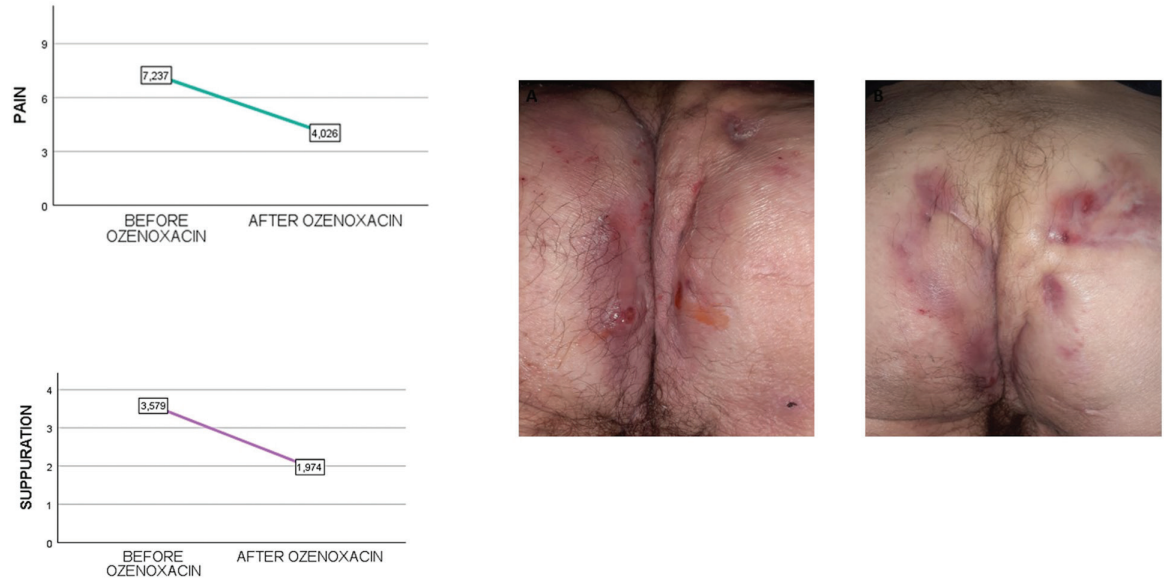

Fig. 1. Comparison of pain reduction according to the NRS scale (0–10) after topical ozenoxacin and suppuration decreases (0–4 scale) after topical ozenoxacin. Clinical images before and after the new topical treatment.

A

	PAIN		SUPPURATION	
	BEFORE	AFTER	BEFORE	AFTER
CLINDAMYCIN	7,24	5,11	3,58	2,70
OZENOXACIN	7,24	4,03	3,58	1,97
	p < 0 ,01		p < 0,017	

B

PAIN	BEFORE	AFTER
NAÏVE	6,27	2,72
TETRACYCLINE	6,5	2,75
CLINDAMYCIN	6	2
ACITRETIN	10	7
ADALIMUMAB	7,64	3,42
SECUKINUMAB	7,8	7,4
BRODALUMAB	9	9

Fig. 2. (A) Comparison of the decrease in pain and suppuration of ozenoxacin vs topical clindamycin. (B) Comparison of pain reduction according to concomitant systemic treatment.

3.58 to 1.97 (**Fig. 1**). Statistically significant differences were found between ozenoxacin 1.5% cream and clindamycin use (**Fig. 2**A). A reduction in the size of abscesses and fistulas was observed in 57.9% of patients; however, no significant difference was noted in outbreak duration. The use of topical ozenoxacin contributed to pain reduction, with greater effectiveness observed in patients with mild forms of the disease and those who received it as an adjuvant therapy alongside other treatments (Fig. 2B). No treatment-related adverse events were reported during the 5-day course of topical ozenoxacin.

DISCUSSION

Clindamycin is the only well-documented topical therapy for HS (3, 4). However, due to increasing resistance and lack of response to treatment, new topical agents for this condition should be explored. Additionally, the presence of Gram-negative bacteria in HS lesions has been reported, and clindamycin may be less effective in their eradication (2). Topical ozenoxacin is a highly potent antimicrobial agent approved for the treatment of superficial skin infections caused by *Staphylococcus aureus* in adults and children older than 6 months (5). Furthermore, it has demonstrated efficacy against Gram-negative bacteria, such as *Pseudomonas aeruginosa*. Unlike clindamycin, which primarily exerts a bacteriostatic effect by inhibiting bacterial protein synthesis, ozenoxacin inhibits DNA replication, leading to a bactericidal effect (5). This mechanism may provide an advantage in terms of efficacy and a lower likelihood of resistance development. Nevertheless, the findings of this study provide important clinical insights. The significant improvement in both pain and suppuration scores, even in patients who have previously shown limited response to clindamycin, suggests a potentially distinct or complementary mechanism of action for ozenoxacin.

An additional strength of ozenoxacin is its favourable safety profile and rapid onset of action. The short 5-day application course may also enhance adherence and reduce systemic exposure or adverse effects, which are concerns in prolonged topical or systemic antibiotic use. Furthermore, given the increasing antimicrobial resistance patterns observed in HS, the lower resistance potential of ozenoxacin could be of particular interest, both from a patient management and public health perspective. From a therapeutic standpoint, ozenoxacin may be especially valuable as an adjunctive therapy in patients receiving systemic or biologic treatment, helping to target residual local inflammation. In patients with milder forms of the disease, it may also serve as a standalone option, particularly when systemic therapy is not yet indicated or not tolerated. Future prospective studies with larger sample sizes, longer follow-up, and microbiological sampling are warranted to validate these results, explore optimal treatment durations, and better define the place of ozenoxacin within the HS treatment algorithm. Comparisons with other topical treatments may also be relevant to assess the relative benefit of ozenoxacin beyond clindamycin. The main limitations of the study include its retrospective design, which inherently limits the strength of causal inference and is prone to biases, including selection and recall bias. The short 5-day follow-up and the lack of microbiological data limit the assessment of long-term efficacy and antibacterial activity, which would help to better support ozenoxacin's potential role in HS. Additionally, pain and suppuration data were self-reported, introducing potential subjective variability. The absence of a control group further restricts direct comparisons and precludes assessment of relative efficacy. In conclusion, our results suggest that ozenoxacin 1% cream may be a safe and promising topical approach for managing HS, helping to reduce pain and suppuration. Further controlled studies are needed to confirm its efficacy and role in clinical practice.

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IRB approval status: The study was conducted in accordance with the principles contained in the Declaration of Helsinki for studies involving humans. All patients provided their informed written consent.

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