Case Report
Olgu Sunumu

DOI: 10.4274/turkderm.galenos.2025.54654
Turkderm-Turk Arch Dermatol Venereol 2025;59(3):96-99

Topical corticosteroids in combination with systemic acyclovir therapy in an atopic dermatitis patient with eczema herpeticum: A case report

Ekzema herpetikumlu atopik dermatit hastasında sistemik asiklovir tedavisi ile kombine topikal kortikosteroid kullanımı: Bir olgu sunumu

Abdullah Demirbaş, Seda Dilek Yetut, Esin Diremsizoğlu

Kocaeli University Faculty of Medicine, Department of Dermatology, Kocaeli, Türkiye

Abstract

Eczema herpeticum (EH), also known as Kaposi's varicelliform eruption, is a viral skin infection caused by the herpes simplex virus in the setting of compromised skin, most often associated with atopic dermatitis (AD). An eighteen-year-old female patient with a longstanding history of AD presented with EH, confirmed by viral testing, and was treated with intravenous acyclovir and topical antibiotics. A potent topical corticosteroid, clobetasol propionate, was applied to manage the underlying AD. Within five days, significant improvement was observed in both the viral and eczematous lesions with no adverse effects. This case highlights the effectiveness of combining antiviral therapy with topical corticosteroids in EH and the role of corticosteroids in supporting skin recovery in patients with AD at risk of EH.
Keywords: Eczema herpeticum, topical corticosteroids, herpes simplex virus, antiviral agents, combination therapy, atopic dermatitis

Öz

Kaposinin variselliform erüpsiyonu olarak da bilinen ekzema herpetikum (EH), herpes simpleks virüsünün, deri bariyer bütünlüğü bozulmuş olan bireylerde enfeksiyona yol açmasıyla gelişen ciddi bir komplikasyondur. En sık atopik dermatit (AD) ile ilişkili olarak görülür. Uzun süredir AD öyküsü olan 18 yaşında kadın hastada, viral testlerle doğrulanmış EH tanısı konuldu ve intravenöz asiklovir ve topikal antibiyotiklerle tedavi edildi. Altta yatan AD'yi yönetmeye yardımcı olmak için güçlü bir topikal kortikosteroid olan klobetasol propiyonat da uygulandı. Beş gün içinde hem viral hem de ekzematöz lezyonlarda belirgin iyileşme gözlenmiş ve herhangi bir yan etki görülmedi. Bu olgu, EH'de antiviral tedavinin topikal kortikosteroidlerle kombinasyonun etkinliğini ve EH riski taşıyan AD hastalarında deri iyileşmesini desteklemede kortikosteroidlerin rolünü vurgulamaktadır.
Anahtar Kelimeler: Ekzema herpetikum, topikal kortikosteroidler, herpes simpleks virüs, antiviral ajanlar, kombinasyon tedavisi, atopik dermatit

Introduction

Eczema herpeticum (EH), also known as Kaposi's varicelliform eruption, occurs when herpes simplex virus (HSV) infects compromised skin, most commonly in atopic dermatitis, but also in conditions such as Darier disease, pemphigus foliaceus, and Hailey-Hailey disease. Standard treatment involves systemic antiviral therapy, while the use of topical corticosteroids remains controversial due to concerns about worsening viral infection[1]. Recent evidence suggests that topical corticosteroids (TCS) can be safely used in combination with antivirals to improve outcomes in EH[2].

Case Report

An eighteen-year-old female presented with a one-week history of a generalized rash and facial vesicles. She had a known history of atopic dermatitis diagnosed at the age

Address for Correspondence/Yazışma Adresi: Esin Diremsizoğlu MD, Kocaeli University Faculty of Medicine, Department of Dermatology, Kocaeli, Türkiye
E-mail: mdesinarslan@gmail.com **ORCID:** orcid.org/0000-0001-9824-481X
Received/Geliş Tarihi: 26.10.2024 **Accepted/Kabul Tarihi:** 28.08.2025 **Publication Date/Yayınlanma Tarihi:** 30.09.2025

Cite this article as/Atıf: Demirbaş A, Yetut SD, Diremsizoğlu E. Topical corticosteroids in combination with systemic acyclovir therapy in an atopic dermatitis patient with eczema herpeticum: a case report. Turkderm-Turk Arch Dermatol Venereol. 2025;59(3):96-99

of three years but had not previously received regular treatment. On examination, the patient exhibited swollen, painful lips, hemorrhagic crusted ulcers, and clusters of vesicles on the face and right eye. Eczematous plaques were present in the antecubital fossa, wrists, and popliteal fossae (Figures 1a-1d). The genital mucosa was normal, and there was no evidence of lymphadenopathy in the patient. Laboratory tests revealed elevated levels of C-reactive protein (36 mg/dL), erythrocyte sedimentation rate (39 mm/h), and total IgE (4130 kU/L), whereas other blood parameters were within the normal limits. Tzanck smear and viral cultures confirmed HSV infection, and a diagnosis of EH was made. The initial focus of the HSV infection was identified as herpes labialis, based on the patient's history of recurrent perioral lesions preceding the widespread eruption. The patient was started on intravenous acyclovir to manage the HSV infection. Topical antibiotics and epithelializing agents were applied to the crusted ulcerated areas. Clobetasol propionate was diluted 1:1 with white petrolatum and applied to eczematous plaques on the body for five days. Within five days, significant improvement was noted in both herpetic and eczematous lesions (Figures 2a-2c). Combination therapy was well tolerated, and no adverse effects were observed. Informed consent was obtained from the patient for the use of the photographs in this case.

a

Figure 1a: Severe edema and hemorrhagic crusted ulcers around the lips, edema and clustered blisters in the right eye, and eczematous plaques on the anterior chest

b

Figure 1b: Clustered blisters and ulcerated lesions on the left side of the face and left ear; eczematous plaques on the neck

Discussion

EH is a severe complication most often seen in patients with AD, resulting from impaired skin barrier function, immune dysregulation, and a high responsiveness to viral infections such as HSV[1]. The use of topical corticosteroids in the setting of viral infections is often discussed; however, emerging evidence supports their safe use when combined with antiviral agents. Corticosteroids help manage the underlying AD by reducing inflammation and restoring skin barrier integrity, thereby reducing the risk of recurrent EH episodes[2]. This is further supported by a UK cohort study in which 92% of patients received topical corticosteroids within 24 h of admission, and 75% were treated with potent or very potent preparations, with no reported mortality, ICU admissions, or long-term complications[2]. Wollenberg et al.[3] reported that in the 4 weeks prior to EH onset, only 20% of patients used TCS, suggesting that TCS did not precipitate EH and might have played a protective role. While the immunosuppressive effects of corticosteroids have raised theoretical concerns regarding enhanced viral dissemination, the majority of EH cases actually occurred in patients who had not received corticosteroids, arguing against a causative role and implying that untreated, severe AD may pose a greater risk for EH development. Similarly, Aronson et al.[4] found that the use of TCS in combination with acyclovir did not prolong hospital stays for patients with EH, unlike systemic corticosteroids, which were associated with longer hospitalizations. Furthermore, Seegräber et al.[5] noted that EH primarily affected AD lesions and not healthy skin, indicating that the use of TCS could be beneficial by reducing the overall burden of AD. Notably, no studies or case reports have documented adverse outcomes directly attributable to TCS use in EH; on the contrary, the absence of anti-inflammatory treatment may even contribute to increased EH susceptibility[3]. In our case, the use of clobetasol propionate led to a significant improvement in the eczematous lesions without exacerbating the viral infection, further supporting the safety of TCS in combination with antiviral therapy. A very potent steroid was chosen because of the severity of the eczematous lesions and the need for rapid inflammation control for barrier restoration. Dilution with petrolatum minimized the risk of side effects and allowed for safer application over a short duration.

In conclusion, this case adds to the limited but increasing number of reports showing the effectiveness of TCS in EH, highlighting its potential to improve outcomes in patients with both AD and HSV infections. Early detection and combination therapy remain key to the successful management of EH, and our findings are consistent with recent studies showing that TCS, when used appropriately, do not increase the risk of viral spread or prolong hospital stays.

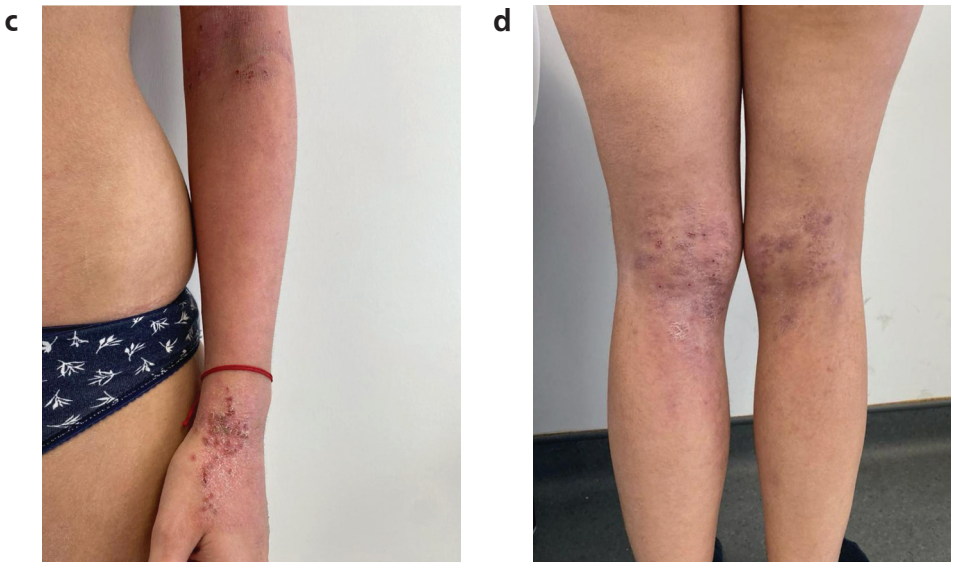

Figure 1c, d: Clustered blisters, vesicular lesions, and eczematous plaques on the antecubital fossa, wrist, dorsum of the hand, and popliteal fossa

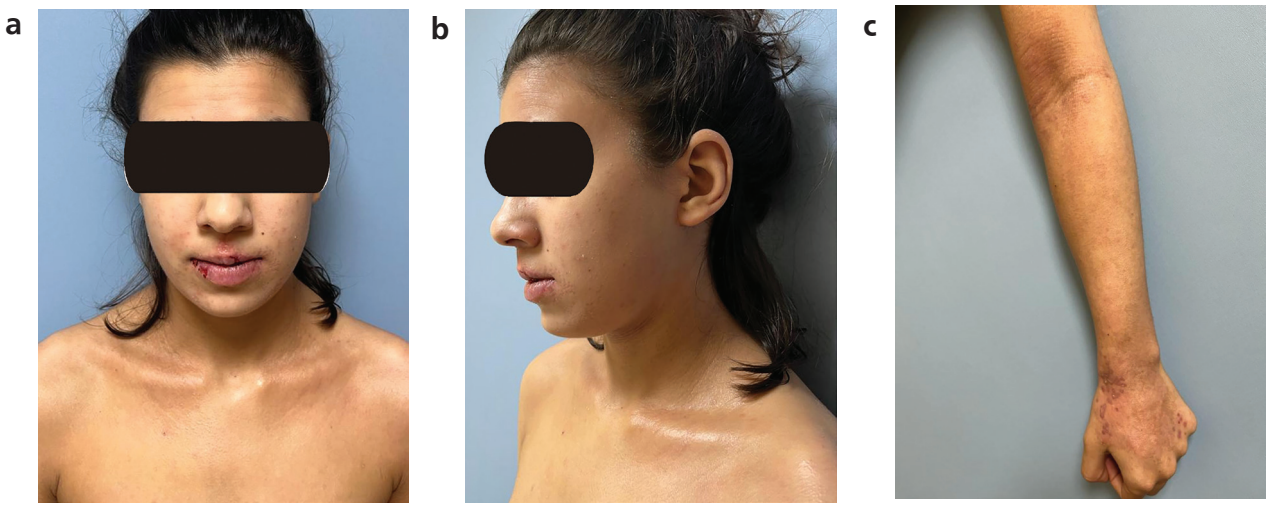

Figure 2a-c: Regression of lesions after the fifth day of treatment with acyclovir and topical steroids

Ethics

Informed Consent: Informed consent was obtained from the patient for the use of the photographs in this case.

Footnotes

Authorship Contributions

Surgical and Medical Practices: A.D., S.D.Y., E.D., Concept: A.D., S.D.Y., E.D., Design: A.D., S.D.Y., E.D., Data Collection or Processing: A.D., S.D.Y., E.D., Analysis or Interpretation: A.D., S.D.Y., E.D., Literature Search: A.D., S.D.Y., E.D., Writing: A.D., S.D.Y., E.D.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

References

1. Traidl S, Roesner L, Zeitvogel J, Werfel T: Eczema herpeticum in atopic dermatitis. Allergy. 2021;76:3017-27.
2. Steele L, Innes S, Oldham J, et al.: Safety outcomes for topical corticosteroid use in eczema herpeticum: a single-centre retrospective cohort study. Br J Dermatol. 2023;188:295-7.
3. Wollenberg A, Zoch C, Wetzel S, Plewig G, Przybilla B: Predisposing factors and clinical features of eczema herpeticum: a retrospective analysis of 100 cases. J Am Acad Dermatol. 2003;49:198-205.
4. Aronson PL, Shah SS, Mohamad Z, Yan AC: Topical corticosteroids and hospital length of stay in children with eczema herpeticum. Pediatr Dermatol. 2013;30:215-21.
5. Seegräber M, Worm M, Werfel T, et al.: Recurrent eczema herpeticum - a retrospective European multicenter study evaluating the clinical characteristics of eczema herpeticum cases in atopic dermatitis patients. J Eur Acad Dermatol Venereol. 2020;34:1074-9.