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Two sides of the same coin: eosinophilic and herpetic esophagitis in an immunocompetent young adult

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Statement of ethics: informed consent was obtained from the patient for the publication of her information and imaging in this case report.

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Keywords: Eosinophilic esophagitis. Herpetic esophagitis. Infectious esophagitis.

Dear Editor,

We report the case of a 30-year-old female with an eight-year diagnosis of eosinophilic esophagitis (EoE) treated with swallowed fluticasone propionate throughout this period. She presented to the Emergency Room with a two-day history of severe odynophagia, aphagia, retrosternal pain and fever. The patient was febrile and hemodynamically stable, with no visible oropharyngeal lesions. She presented with

elevated C-reactive protein (37 mg/l). An esophagogastroduodenoscopy was performed, which revealed white plaque-like lesions with “volcano-like” shallow ulcerations with raised edges on the distal esophagus (Fig. 1A and B). Multiple biopsies were taken from both the center and edges of the lesions. The patient was empirically started on intravenous fluconazole due to the suspicion of candida esophagitis. However, the patient’s symptoms worsened over the next two days, and acyclovir at a dose of 5 mg/kg was started. The initial work-up showed a positive titer for herpes simplex virus (HSV)-2 IgM (1.6 U/l) and a negative titer for IgG (2.24 U/l), as well as a negative serological study for HSV-1, cytomegalovirus, and human immunodeficiency virus (HIV). Histological examination revealed multinucleated giant cells with nuclear molding and chromatin margination and cells with “ground glass” nuclei, along with typical Cowdry type A intranuclear inclusion bodies and immunohistochemical staining for HSV type 2, confirming the diagnosis of herpetic esophagitis (Fig. 1C and D). The patient experienced rapid improvement and was discharged on oral acyclovir therapy at 400 mg/day, completing a total of 14 days of treatment with a total resolution of symptoms.

Discussion

Herpetic esophagitis (HSE) is common in immunocompromised or HIV positive patients and in patients under immunosuppressive treatments. However, it is rare in immunocompetent hosts, and even rarer when caused by HSV type 2. It should be suspected with the acute onset of odynophagia, heartburn and fever (1). Endoscopically, multiple coalescent ulcers with a “volcano-like” appearance are typical, most commonly in the distal esophagus (2). As highlighted by this case, plaque-like lesions resembling candida esophagitis may also occur, making endoscopic diagnosis challenging. In our case, the diagnosis of HSE was suspected from endoscopic findings and the lack of response to azole therapy, and confirmed by histology and immunohistochemical staining (3).

EoE, through esophageal mucosal inflammation, and the use of swallowed fluticasone propionate can predispose individuals to infections by candida and viruses such as HSV (3-5). This case highlights that HSE and EoE can coexist in the same patient. Therefore, clinical suspicion, endoscopic examination, and histopathological evaluation are fundamental for correct diagnosis and implementing targeted treatment.

References

1. Canalejo E, García Durán F, Cabello N, et al. Herpes esophagitis in healthy adults and adolescents. *Medicine* 2010;89:204-10. DOI: 10.1097/MD.0b013e3181e949ed
2. Ramanathan J, Rammouni M, Baran J, et al. Herpes simplex virus esophagitis in the immunocompetent host: an overview. *Am J Gastroenterol* 2000;95:2171-6. DOI: 10.1111/j.1572-0241.2000.02299.x
3. Monsanto P, Almeida N, Cipriano MA, et al. Concomitant herpetic and eosinophilic esophagitis - A causality dilemma. *Acta Gastroenterol Belg* 2012;75:361-3.
4. Lindberg GM, Van Eldik R, Saboorian MH. A case of herpes esophagitis after fluticasone propionate for eosinophilic esophagitis. *Nat Clin Pract Gastroenterol Hepatol* 2008;5:527-30. DOI: 10.1038/ncpgasthep1225.
5. Quera R, Sasaki LY, Nuñez P, et al. Herpetic esophagitis and eosinophilic esophagitis: a potential association. *Am J Case Rep* 2021;22:e933565. DOI: 10.12659/AJCR.933565

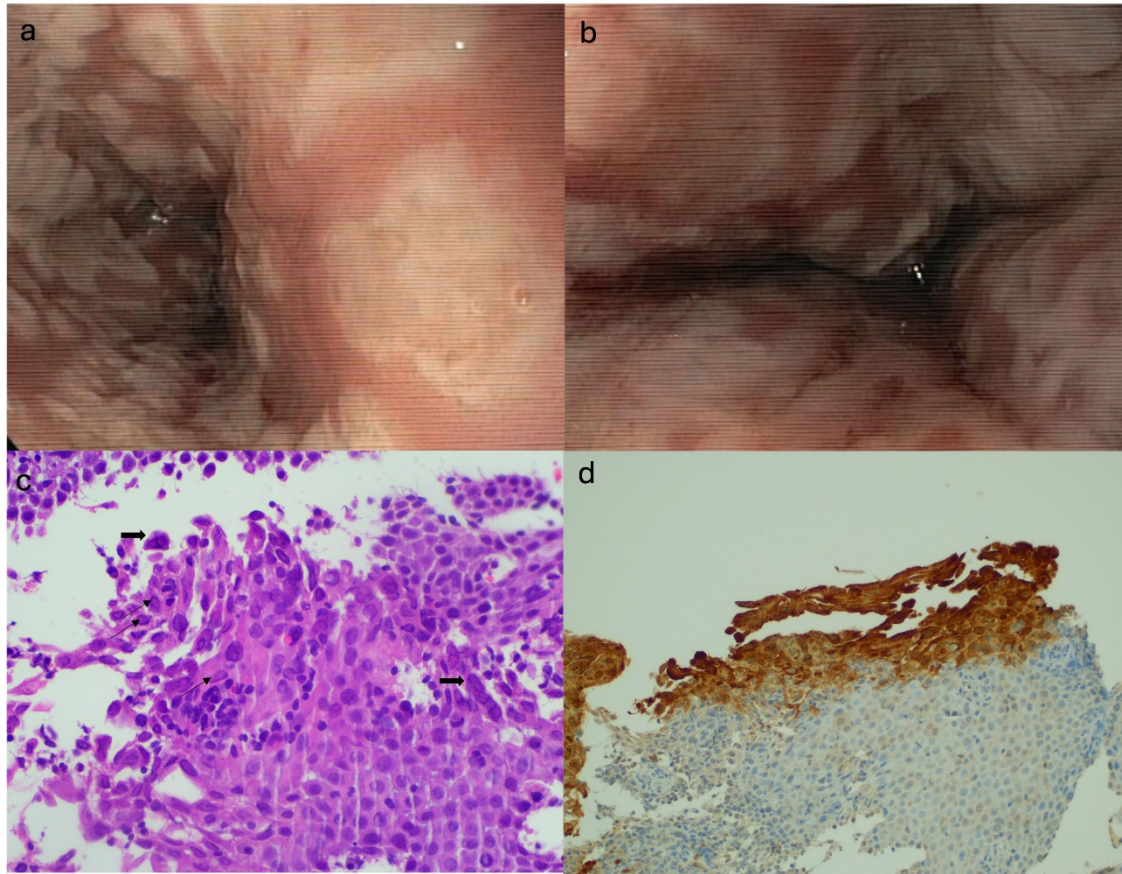


Fig. 1. A and B. The distal esophagus exhibits the presence of white plaque lesions and multiple superficial ulcers. C. Esophageal epithelial cells showing classic histological changes of herpes simplex virus (HSV) infection, namely nuclear chromatin margination, multinucleation, and nuclear molding (bold arrow). Cowdry type A nuclear inclusions (thin arrow) can also be observed (H&E 40x). D. Immunohistochemical study revealing epithelial cell immunoreactivity for HSV (H&E 20x).