



Herpetic Esophageal Ulcer in an Immunocompromised Host

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ABSTRACT

Herpetic esophagitis is a rare condition that occurs predominantly in immunocompromised patients. Diagnosis is based on the macroscopic findings of upper gastrointestinal endoscopy, with confirmation by histopathological examination and molecular testing (PCR). Intravenous acyclovir remains the treatment of choice.

We report a case of an isolated herpetic esophageal ulcer in a patient with Crohn's disease and a newly diagnosed retroviral infection, who was admitted to our department for the initial evaluation of Crohn's disease.

The diagnosis of herpetic esophagitis was suspected in the presence of odynophagia, high-grade fever (39°C), and marked deterioration of the general condition. Upper gastrointestinal endoscopy revealed a solitary superficial ulcer located in the middle third of the esophagus. HIV serology subsequently returned positive.

Histopathological examination and tissue PCR confirmed the diagnosis of herpetic esophagitis. The patient was treated with intravenous acyclovir, with a favorable clinical outcome.

Published Online: January 05, 2026

KEYWORDS:

Crohn's disease – Retroviral infection (HIV) – Esophageal ulcer – Herpes simplex virus.

INTRODUCTION

Herpetic esophagitis is an inflammatory disorder of the esophageal mucosa caused by Herpes simplex virus type 1 (HSV-1). It is a rare opportunistic infection that occurs predominantly in immunocompromised patients, including those with human immunodeficiency virus (HIV) infection, hematologic and solid malignancies, and other immunosuppressive conditions [20,21].

Its association with Crohn's disease is uncommon and is most often secondary to immunosuppressive therapies used in the management of inflammatory bowel disease.

Clinically, herpetic esophagitis typically presents with odynophagia, epigastric pain, and in some cases, upper gastrointestinal bleeding. The diagnosis is based on upper gastrointestinal endoscopy, with confirmation by histopathological examination and detection of the virus by tissue PCR.

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**Cite this Article: W. Hliwa, N.khaireh. Amoud, A.Alami. Rahmouni, Z. Boukhal, F.Z.El Rhaoussi, M. Tahiri, F. Haddad, A. Bellabah, W. Badre (2026). Herpetic Esophageal Ulcer in an Immunocompromised Host. International Journal of Clinical Science and Medical Research, 6(1), 01-04.*
<https://doi.org/10.55677/IJCSMR/V6I1-01/2026>

The aim of this report is to describe a case of herpetic esophagitis in a patient with Crohn's disease and a newly diagnosed retroviral infection (HIV).

CASE REPORT

We report the case of a 43-year-old woman with no significant past medical history who was admitted to our department for the initial evaluation of Crohn's disease, suspected on the basis of chronic watery diarrhea, abdominal pain, and marked deterioration of her general condition.

Laboratory investigations revealed a significant inflammatory syndrome with an elevated C-reactive protein (CRP) level of 100 mg/L, as well as normochromic normocytic anemia with a hemoglobin level of 9 g/dL. Ileocolonoscopy showed an ulcerative colitis. Histological examination revealed a colonic mucosa with globally altered architecture, showing areas of near-normal appearance alternating with ulcerated and remodeled mucosa. The lamina propria was edematous and congested, with a moderate to severe inflammatory infiltrate and the presence of crypt abscesses, findings consistent with inflammatory bowel disease of the Crohn's disease type.

In addition, the patient presented with odynophagia associated with a high-grade fever of 39°C, which prompted

an upper gastrointestinal endoscopy. This revealed a solitary, well-demarcated esophageal ulcer located in the lower third of the esophagus, on an otherwise normal-appearing mucosa, suggesting a non-peptic, specific esophagitis (**Figure 1**). Given these endoscopic findings, HIV serology was performed and returned positive. Esophageal biopsies were obtained for histopathological examination and for the detection of Herpes simplex virus and cytomegalovirus by tissue PCR.

Histological analysis showed ulcerated esophageal mucosa with cells exhibiting intranuclear inclusions, multinucleation,

and chromatin margination, which are characteristic features of herpetic esophagitis (**Figure 2**). HSV PCR performed on esophageal biopsy specimens was positive at 70.5 IU/mL. In conclusion, the patient was diagnosed with colonic Crohn's disease associated with herpetic esophagitis in the context of HIV infection.

The patient was treated with intravenous acyclovir at a dose of 5 mg/kg every 8 hours for 10 days, in combination with disease-modifying therapy for the retroviral infection and Crohn's disease. The clinical course was favorable, with complete resolution of odynophagia and fever.

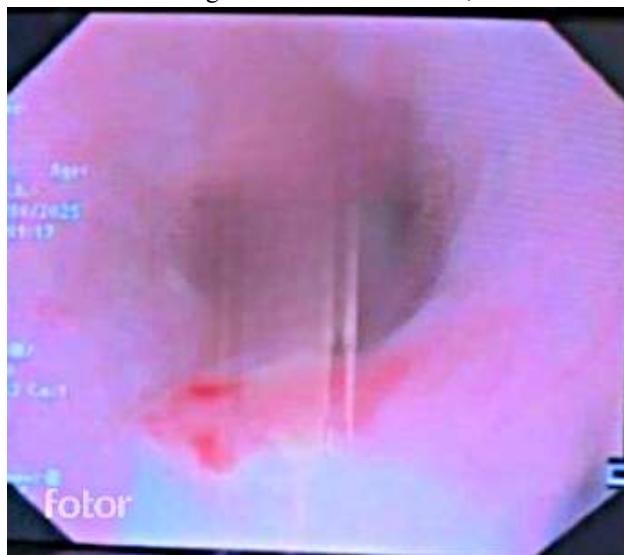
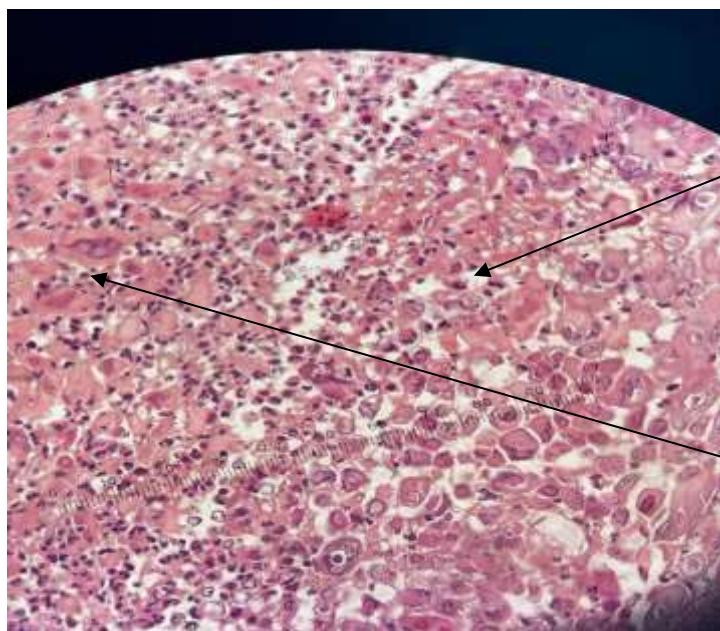


Figure 1: Solitary ulcer located in the middle third of the esophagus.



Intranuclear inclusion / Cowdry type A inclusion

Multinucleation

Figure 2: Histological features of herpetic esophagitis.

DISCUSSION

Herpetic esophagitis is a well-recognized complication of immunosuppression, with the esophagus being most frequently involved during disseminated infection by Herpes simplex virus (HSV) [1–3].

In patients with retroviral infection, herpetic esophagitis accounts for 4–16% of esophageal symptoms [5,6]. The incidence of herpetic esophagitis is estimated at 1.8% among immunocompromised patients, with a male predominance in individuals under 40 years of age [23]. In our case, the patient

was a 43-year-old woman with a newly diagnosed HIV infection.

Other predisposing risk factors include gastroesophageal reflux, alcohol abuse, malnutrition, caustic esophageal injury, and eosinophilic esophagitis [24,25].

Although no significant association between inflammatory bowel disease (IBD) and herpetic esophagitis has been demonstrated in the literature, the immunosuppressive therapy used in IBD may predispose patients to opportunistic infections, including herpetic esophagitis.

Clinically, the presentation is dominated by dysphagia, fever, and particularly odynophagia [7,8], as observed in our patient.

Endoscopic examination is essential [9] and may reveal ulcerations, vesicles, and erosions [10,11]. In the literature, the typical location of herpetic esophagitis in immunocompromised patients is the lower third of the esophagus [7], which contrasts with our case, where the lesion was located in the middle third.

Histological examination alone is sufficient to establish the diagnosis of herpetic esophagitis [12,13]. Typical lesions include ballooning degeneration, ground-glass nuclei with margination of chromatin, eosinophilic intranuclear inclusions (Cowdry type A), and multinucleated giant squamous epithelial cells [14].

Polymerase chain reaction (PCR) can be justified when the herpetic nature of an ulcerated esophagitis is not demonstrated histologically [15]. In our case, both histology and PCR confirmed the diagnosis of herpetic esophagitis.

Acyclovir remains the treatment of choice, administered at a dose of 5 mg/kg every 8 hours, most often intravenously due to dysphagia, odynophagia, and vomiting [16,17]. Our patient received intravenous acyclovir at 5 mg/kg every 8 hours for 10 days, with a favorable clinical outcome.

CONCLUSION

Herpetic esophagitis is common in immunocompromised patients and should be systematically considered in the presence of any gastrointestinal symptoms. Histological examination and microbiological testing (PCR) constitute the gold standard for a definitive diagnosis. Acyclovir, administered orally or intravenously, remains the treatment of choice.

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