Herpes Simplex Infection Masquerading as Esophageal Candidiasis in Immunocompetent Individuals: A Series of Two Cases

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Abstract

Herpes simplex esophagitis (HSE) is usually an autopsy finding in immunosuppressed hosts but is a rare occurrence in immunocompetent individuals. It presents with an acute onset of retrosternal pain, odynophagia, and fever. Clinically, esophageal herpetic infections remain underdiagnosed unless the patient is immunocompromised. HSE is generally a self-limiting condition. The patient may present with complications like perforation and bleeding. Antiviral therapy is useful to provide symptomatic relief and hasten recovery. Treatment with the nucleoside analog acyclovir has been shown to be effective for HSE. Herpes esophagitis must be kept in the differential diagnosis of patients with acute esophageal complaints. We hereby report two cases of herpetic esophagitis in young immunocompetent patients.

Keywords: Esophagitis, Herpes simplex, Immunocompetent.

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INTRODUCTION

Herpes simplex esophagitis (HSE) is usually an autopsy finding in immunosuppressed hosts but is a rare occurrence in immunocompetent individuals. Esophagitis due to herpes simplex virus (HSV) may occasionally occur as an acute, selflimited illness in immunocompetent patients.^{1,2} A clinician needs to have a high index of suspicion in a young healthy adult who presents with an acute onset of dysphagia, odynophagia, and epigastric pain.³ Patients may or may not present with prodromal symptoms, such as, malaise, fever, pharyngitis, and cough.^{3,4} Clinically, esophageal herpetic infections remain underdiagnosed unless the patient is immunocompromised. We report two cases of herpetic esophagitis in young immunocompetent patients.

CASE DESCRIPTIONS

Case 1

A young 28-year-old female presented in emergency with a sudden onset of upper abdominal pain and two episodes of hematemesis since day one. There was no history of fever, odynophagia, recent weight loss, previous gastrointestinal complaints, medications, or ingestion of corrosives. Physical examination was unremarkable. There was no evidence of skin, lip, or oropharyngeal lesions. Upper gastrointestinal endoscopy showed esophageal ulcers with curdy white precipitates. Candidiasis was suspected and the patient was put on fluconazole 100 mg orally. A biopsy was taken and sent to the Department of Pathology. Histological examination showed fragments of stratified squamous epithelium with ballooning and perinuclear vacuolation. Multinucleate giant cells with eosinophilic Cowdry type A intranuclear inclusions and nuclear chromatin with ground glass appearance were present (Figs 1 and 2). She was treated with valacyclovir and responded well to the treatment.

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Case 2

A 29-year-old man presented to the emergency room with a history of fever, sore throat, chest pain, and burning sensation in the chest since one week. There was no history of intake of corticosteroids or any known risk factor for human immunodeficiency virus (HIV) infection. No prior history of orolabial herpes infection was found. Initial evaluation was suggestive of acute tonsillopharyngitis with the deviated nasal septum and the patient was being managed accordingly. Upper gastrointestinal endoscopy revealed discrete esophageal ulcers with a whitish lesion which were mimicking candidiasis. Histological examination of esophageal biopsies showed evidence of ulceration. Focally, some of the squamous cells showed margination and condensation of nuclear chromatin with intranuclear inclusions (Figs 3 and 4). The nuclei had a somewhat ground glass appearance, which was again in favor of herpetic esophagitis. The patient was put on valacyclovir 1 g TDS for 21 days and showed great improvement.

DISCUSSION

Herpes simplex virus infection is prevalent in immunocompromised patients, such as, HIV carriers, organ transplant recipients, neoplasia, and those treated with corticosteroids or immunosuppressive drugs.

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Fig. 1: Karyomegaly and ground-glass appearance (H&E 40×)



Fig. 2: Stratified squamous epithelium with herpes induced changes (H&E 40×)



Fig. 3: High power image with marked nuclear variation and nucleomegaly (H&E 40 \times)



Fig. 4: Evidence of multinucleation and ground-glass appearance induced by the herpes virus (H&E $40\times$)

Manifestations of HSV infection can range from asymptomatic infections to fatal diseases. Herpetic esophagitis is often diagnosed in patients with compromised immune status but can rarely occur in healthy and immunocompetent patients.^{5–8} HSE usually occurs in 78% of young, healthy males. The patient mostly presents with complaints, such as, painful swallowing, dysphagia, or heartburn, with or without prodromal symptoms (fever, pharyngitis, respiratory difficulties) and oral lesions.^{8,9}

The non-consideration of this diagnosis in healthy adults may be due to spontaneous remission of the disease and the inability to perform an esophagoscopy due to severe dysphagia. An immunocompetent person may become infected in certain conditions, such as, like gastroesophageal reflux, esophageal instrumentation, nasogastric drainage, caustic ingestion, or by contact with a patient having HSV lesions. Endoscopic findings of HSV infection in the esophagus are almost similar in both healthy and immunocompromised patients. It mainly affects the mid-distal esophagus. The mucosa is friable and hemorrhagic. Ulcers of various depth and length are seen, which coalesce with one another.^{5,6}

The clinician should take biopsies from the edge of the ulcers carefully. Cell culture is considered a gold standard for virus isolation. Virus DNA in the biopsy specimens can be isolated from biopsy specimens.¹⁰ The diagnostic value of serology is restricted⁵ in cases of viral esophagitis. In recent years, HSV DNA PCR is considered the most sensitive, cost-effective, rapid, and easiest diagnostic tool for HSV infection.¹⁰ Histopathologically, the characteristic appearance is the presence of multinucleated giant cells with eosinophilic intranuclear inclusions, called Cowdry type A intranuclear inclusions and nuclear chromatin with a ground glass appearance.

Herpes simplex esophagitis is generally a self-limiting condition. The patient may present with complications like perforation and bleeding.¹¹ Antiviral therapy is useful to provide symptomatic relief



and to hasten recovery. Treatment with the nucleoside analog acyclovir has been shown to be effective for HSE. The duration of illness ranges from 4 to 9 days in those receiving antiviral therapy compared with 10–17 days in those receiving symptomatic treatment alone. Recurrence of this condition is not commonly seen.⁵ Complications, including gastrointestinal bleeding and esophageal perforation, have been reported.¹¹

Herpes esophagitis must be kept in the differential diagnosis of patients with acute esophageal complaints. Finally, immunocompetent patients with herpes esophagitis can be reassured that their acute and frightening symptoms will rapidly subside.

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