



IDIOPATHIC ESOPHAGITIS IN ACUTE HIV INFECTION- A CASE REPORT

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ABSTRACT Esophageal ulcer is a known complication of late-stage human immunodeficiency virus(HIV) infection. It is usually due to esophageal candidiasis, herpes simplex virus(HSV), or cytomegalovirus(CMV). However acute HIV infection presenting as esophageal ulcer is rare. Our patient had severe odynophagia due to an expanding esophageal ulcer and an incidentally detected HIV-1 positive status and latent syphilis. The cause of the ulcer was determined to be idiopathic and related to HIV-1 infection after excluding the other possible pathogens. A feeding jejunostomy was also done due to severe odynophagia. Antiretroviral therapy(ART) and penicillin were initiated. He showed good improvement with antiretroviral therapy and the feeding jejunostomy tube was removed at follow-up. The physicians should be aware that HIV esophagitis is a possible, but rare manifestation of acute HIV infection.

KEYWORDS : Human Immunodeficiency Virus(HIV), Syphilis, Esophageal ulcer, Odynophagia

INTRODUCTION:

Acute HIV infection usually manifests as flu-like syndrome. Later, most of the patients remain asymptomatic. As the stage of HIV progresses the patients may develop unexplained weight loss, fever, and diarrhea. HIV infection manifesting as an esophageal ulcer is very unlikely. Conventionally, infectious esophagitis is a manifestation of AIDS, along with other features like HIV wasting syndrome, HIV encephalopathy, extrapulmonary tuberculosis, Kaposi sarcoma, central nervous system(CNS) toxoplasmosis, chronic HSV infection, and recurrent severe pneumonia. Candida is reported to be the most common cause of infectious esophagitis. The other usual causes include HSV and CMV. Idiopathic esophagitis is an uncommon manifestation of acute HIV infection.^[1] Diagnosis is mainly by endoscopy and brushing of ulcer or biopsy. Treatment is based on the cause. ART with or without steroids is recommended for the treatment of idiopathic esophagitis.

CASE REPORT:

This 33-year-old Asian male presented with complaints of pain and difficulty in swallowing for three months. His illness started as oral ulcers. It was followed by difficulty in swallowing solids. It gradually progressed and he had difficulty swallowing both solids and liquids. He had chest pain and belching upon swallowing. His appetite was lost and he had a weight loss of 15 kg over three months. He did not have any other complaints.

He was initially evaluated in a local hospital. There, he underwent an oesophagogastro-duodenoscopy(OGD) which showed a large circumferential deep ulcer between 25cms to 35cms from the incisor with visible muscular layers at a few areas. The biopsy of the sample showed squamous epithelium with normal maturation, focal ulceration, and areas of histiocytic aggregates. It did not show any dysplasia, granuloma, fungal elements, malignancy, or increased eosinophils. Immunohistochemistry(IHC) for Cytomegalovirus(CMV) and Herpes simplex virus(HSV) were negative. He was negative for HIV, HbsAg, Anti HCV. A PET CT scan was done and it showed moderately fluoro-deoxy glucose(FDG) avid hypo enhancing asymmetrical circumferential wall thickening in the mid-esophagus and a few enlarged lymph nodes. An axillary lymph node biopsy was done and it showed benign lymphoid tissue with no granuloma or malignancy. Since he had weight loss, loss of appetite, and lymphadenopathy, a clinical diagnosis of tuberculosis was made in the previous hospital and he was started on anti-tuberculosis therapy(ATT).

At our hospital, ATT was stopped and he was re-evaluated. He had pallor and his oral cavity examination was normal. He had no external signs of scleroderma. He had a tattoo over his left forearm. His vital data was within normal limits and he had mild tenderness in the epigastrium. Anemia and leukopenia were noted in baseline

investigations. He was given symptomatic treatment with proton pump inhibitors and ulcer protective agents. However, the patient showed no improvement.

A computed tomography(CT) chest with oral contrast was done(see figure 1) and it showed diffuse symmetrical wall thickening in the entire esophagus, but more prominent in the distal esophagus. The maximum thickness was estimated to be 4mm. A repeat OGD was done and it showed an expanding esophageal ulcer. His esophageal biopsy report was inconclusive. It was negative for malignancy, HSV, and CMV. The culture of the sample grew *Klebsiella pneumoniae* and *Streptococcus mitis*. Since they are commensals, no further treatment was given. There was no growth of any fungi. Fluorescent staining of the sample was negative. His vasculitis profile was also negative.

Even though his previous HIV report was negative, it was repeated as clinical suspicion was high. It came back positive for HIV-1. It was repeated again and it yielded the same result. His CD4 count was just 65 and his viral load was 2,749,210 copies/ml. Since HIV and syphilis coinfection is common, a rapid plasma reagin test was done and it was also positive. Confirmation of syphilis was done with a *Treponema pallidum* hemagglutination (TPHA) test. So, a diagnosis of esophageal ulcer probably secondary to HIV infection per se was made. A feeding jejunostomy was done because of severe odynophagia. He was started on antiretroviral therapy and benzathine penicillin injections were given once a week for three weeks. Cotrimoxazole was started as prophylaxis to prevent *Pneumocystis carinii* pneumonia.

The patient showed slow but consistent improvement. He was discharged and followed up after one month on an OPD basis. His odynophagia resolved and the FJ tube was removed. His CD4 count improved to 305 cells/microlitre and his viral load reduced to 2149 copies/ml.

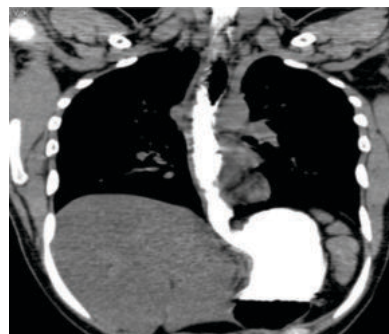


Figure1: CT Chest With Oral Contrast Showing Diffuse Symmetrical Wall Thickening Of Entire Esophagus, But More Predominant In Distal Esophagus

DISCUSSION

Infectious esophagitis is a known complication of stage IV HIV infection. It is also seen in patients post-chemotherapy, radiation therapy, antibiotic or steroid use, or malignancy. It is the most common of all the gastrointestinal issues in a patient with acquired immunodeficiency syndrome (AIDS) with 50% of the cases attributed to candidiasis.^[2]

Acute HIV infection manifesting as infectious esophagitis is very unlikely. Acute HIV infection commonly manifests as fever, fatigue, malaise, arthralgias, headache, loss of appetite, rash, and night sweats. A diagnosis of acute HIV infection can be made if the patient has high levels (>10,000 copies/mL) of HIV RNA detected with nucleic acid amplification test (NAAT) and the result of HIV screening or type differentiation test is negative or indeterminate.^[3] Our patient had a negative HIV screening test prior which later turned out to be positive on repeat testing. His HIV viral load was also very high (2,749,210 copies/mL).

Esophagitis in HIV and AIDS patients is mostly due to candida, HSV, or CMV. Rarely, esophagitis can be idiopathic or secondary to HIV itself or due to malignancy.^[1] HIV as a cause of esophageal ulcers has been reinforced by a study done by Linda Rabeneck et al. They demonstrated retroviruses in 50% of the esophagitis patients with acute HIV infection.^[4] Motility and neuropathic issues in HIV can lead to gastro-esophageal reflux disease (GERD) or gastroparesis.^[1]

Typically patients may present with odynophagia, retrosternal chest discomfort, nausea, vomiting, anorexia, and weight loss.^[5] Some patients may present with maculopapular rash and palatal ulcers.^[4] Physical examination is usually normal. Patients with esophageal candidiasis may have oral thrush. Evaluation of HIV patients with esophageal symptoms does not warrant an OGD, but it is considered the gold standard for the diagnosis. Creamy white plaques with shaggy appearance are seen in candidal esophagitis while well-circumscribed volcano ulcers are associated with HSV infection. CMV esophagitis may present with single or multiple ulcers. A diagnosis of Idiopathic esophagitis is considered after ruling out other possible etiologies. Endoscopically, it has a very varied presentation.^[1] Our patient had an expanding large circumferential esophageal ulcer predominantly in the mid and distal segments of the esophagus with non-specific OGD findings.

Treatment of infectious esophagitis is based on etiology. Antifungals like fluconazole are recommended for candidal esophagitis while antivirals like acyclovir, valacyclovir, and famciclovir are recommended for HSV esophagitis. Ganciclovir, valganciclovir, foscarnet are useful in CMV esophagitis. Antiretroviral therapy with or without concomitant steroids is effective in the treatment of idiopathic esophagitis. Similar to our case, Yohei Hamada et al, reported a case of HIV esophagitis which was treated with ART alone and the patient showed good improvement.^[6]

We conclude that a diagnosis of HIV-induced esophagitis should be considered after ruling out other common etiologies. And, acute HIV infection can be diagnosed if a patient has a high viral load with indeterminate HIV screening or type differentiation test.

DECLARATION:

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Conflict Of Interest- None

Ethical Approval- Not required

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