

ADVANCES IN GERD

Current Developments in the Management of Acid-Related GI Disorders

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Overview of Infectious Esophagitis



C. Mel Wilcox, MD
 Professor of Medicine
 Director, Division of Gastroenterology and Hepatology
 University of Alabama-Birmingham Health System
 Birmingham, Alabama

G&H What are the different types of esophagitis seen by gastroenterologists?

CMW Esophagitis, or inflammation of the esophagus, can be caused by several conditions. The most common cause is gastroesophageal reflux disease (GERD), a condition known to occur in many individuals in the general population, though probably more often in adults than children. However, we now recognize that many patients with confirmed GERD have no mucosal injury (ie, reflux esophagitis).

The second most common cause of esophagitis is an infection such as *Candida* (Figure). These infections can be seen in patients of any age but are typically seen in patients who have some type of immunosuppression, be it inherent (such as in patients with cancer or malnutrition) or exogenous (such as in patients receiving immunosuppressive therapies for benign and/or malignant diseases). Infectious esophagitis is often seen at academic centers because patients with this condition often have comorbidities and/or have received transplants and/or immunosuppressive therapy. According to studies, such infections have been seen in approximately one third of untreated patients with AIDS at some point during the course of their disease.

There are also much less common types of esophagitis, such as pill-induced esophagitis.

G&H How do the presenting symptoms of infectious esophagitis compare with those of reflux esophagitis?

CMW Reflux esophagitis typically presents with substernal symptoms such as heartburn. The classic presentation of infectious esophagitis is dissimilar to that of reflux esophagitis. Patients with infectious esophagitis present

with painful swallowing, which is very unusual in patients with reflux esophagitis; thus, in a patient predisposed to infectious esophagitis, very painful swallowing should be a clue that the patient has an underlying infection. Occasionally, infectious esophagitis may also be associated with dysphagia, or difficulty with food passing through the esophagus. On rare occasions, a patient with infectious esophagitis may have gastrointestinal bleeding, or a fistula may develop.

G&H Can infectious esophagitis and GERD coexist?

CMW A patient may have both conditions but usually has one or the other. If esophagitis is found in the presence of GERD, the esophagitis is likely induced by reflux, not an infection. Generally, there is no relationship between GERD and infectious esophagitis.

G&H How is infectious esophagitis usually diagnosed?

CMW Because a variety of infections may present similarly, the best way to determine a specific diagnosis is with an endoscopy to see what the lesion looks like and to take appropriate biopsies. Radiographs such as chest computed tomography scans or barium swallows may provide clues for the diagnosis, but an endoscopy with biopsy is the definitive means for making a diagnosis. During endoscopy, the endoscopist can look for lesions that are typical for an infection and then obtain biopsies.

In patients at risk for development of an esophageal infection, it is important to perform an endoscopy with biopsy early on rather than first administering an empiric trial of proton pump inhibitors, as is done for



Figure. *Candida* esophagitis.

reflux esophagitis. For example, if *Candida* esophagitis is suspected in an immunocompromised patient, instead of immediately administering treatment, it is better to first definitively determine the cause of the underlying infection to tailor treatment.

G&H How do endoscopic and histopathologic findings of infectious esophagitis compare with those of reflux esophagitis?

CMW The endoscopic and histopathologic findings of infectious esophagitis depend on the underlying infection. For example, the most common infection that causes infectious esophagitis is *Candida*, which has a very characteristic endoscopic appearance (multiple yellow plaques). Viral esophagitis, which is probably the second most common cause of infectious esophagitis, results in ulceration of the esophagus, although it may be variable in appearance. Cytomegalovirus tends to cause larger ulcers than does herpes simplex virus, but a biopsy should be able to distinguish between these 2 infections. Infectious esophagitis can be differentiated from reflux esophagitis by the presence of the infectious organism on endoscopic and pathologic findings.

G&H How is infectious esophagitis usually treated?

CMW Essentially, all of the infectious causes of esophagitis can be treated with some type of medication, be it oral or intravenous, and the medications are generally effective. Identifying the specific cause for esophagitis is very important, as the antimicrobial therapy can be targeted effectively to yield a cure. Most esophageal infections can be treated with a specific antimicrobial (eg, fluconazole for *Candida*).

G&H Can any nonmedical treatment options, such as lifestyle modification, be used in these patients?

CMW Unlike in reflux esophagitis, lifestyle modification is not effective in patients with infectious esophagitis. However, if a patient with infectious esophagitis is on a high dose of immunosuppressive therapy, any opportunity to reduce the dosage should be taken.

G&H Are there any special considerations or potential treatment interactions to be aware of when treating patients with infectious esophagitis?

CMW There may be potential interactions between antifungal agents and the immunosuppressive drugs that are typically used post-transplantation, specifically cyclosporine. Interactions are less of a concern with the highly active antiretroviral therapy currently used in patients with AIDS.

G&H Are there any prophylactic agents that patients at high risk for infectious esophagitis should take?

CMW Prophylactic antiviral therapy for cytomegalovirus and *Candida* infection can be used in the appropriate setting, such as when a patient is at high risk for development of infections such as cytomegalovirus, which is very common after transplant. This includes patients with negative cytomegalovirus antibodies who receive a cytomegalovirus-positive organ.

G&H Do patients with infectious esophagitis require long-term management or surveillance?

CMW It depends on the cause and duration of the underlying immunocompromise. For example, before the use of highly effective antiretroviral therapy, patients with AIDS generally had to take antimicrobials for the rest of their lives. Now, if patients with AIDS are treated and their immune systems improve, they can come off their medications after their lesions are healed. In other immunosuppressed patients, such as patients with cancer or transplants, immunosuppressive therapy can be altered or a short course can be given instead of an indefinite course of antimicrobial therapy. Once immunosuppression is discontinued, the risk of infectious esophagitis decreases.

G&H What are the recurrence rates of infectious esophagitis?

CMW Again, it depends on the underlying cause of the infection and the ability to improve the underlying immunodeficiency. For example, the recurrence rate of any type

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of infectious esophagitis in a patient with AIDS who is not on antiretroviral therapy is essentially 100%. As immunosuppressive therapy is reduced, the likelihood of infection, and thus the recurrence rate of infectious esophagitis, falls.

G&H Does the presence of infectious esophagitis increase the risk of other esophageal disorders or complications?

CMW Not specifically. If a patient has severe ulceration in the esophagus, an esophageal stricture that requires treatment may develop. However, this does not generally happen, unlike in reflux esophagitis, in which patients may be predisposed to Barrett esophagus. Once the lesions caused by infectious esophagitis are healed, there are usually no sequelae.

G&H What are the next steps in research in this area?

CMW Most of the research currently being conducted in this area is centered on determining which patients are at

risk for development of infections and determining the best prophylactic antimicrobial treatments and when to apply them. There are several ongoing studies looking at cytomegalovirus and how long before or after transplantation antimicrobial therapy should be administered. There is not as much research on the pathogenesis of infectious esophagitis compared with research on antimicrobial therapy.

Dr. Wilcox has no conflicts of interest to disclose.

Suggested Reading

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