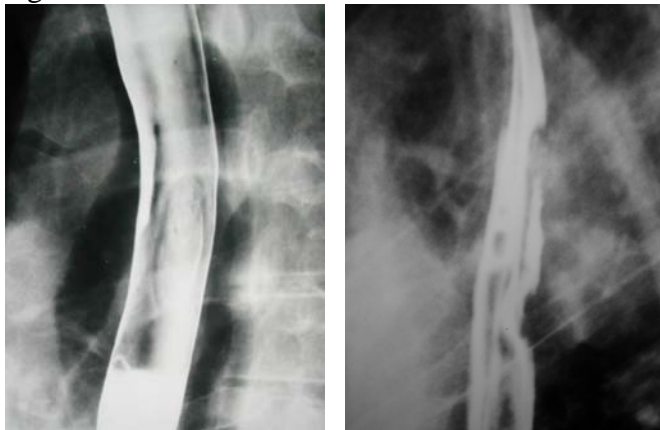


Question 3 – Week of December 19

42 year-old woman renal transplant recipient who presented with recent history of dysphagia, odynophagia, epigastric pain and diarrhea for the last 8 weeks. Esophagram is shown in Figure 1 and the histology from the lesion is shown in Figure 2. What is the best treatment?

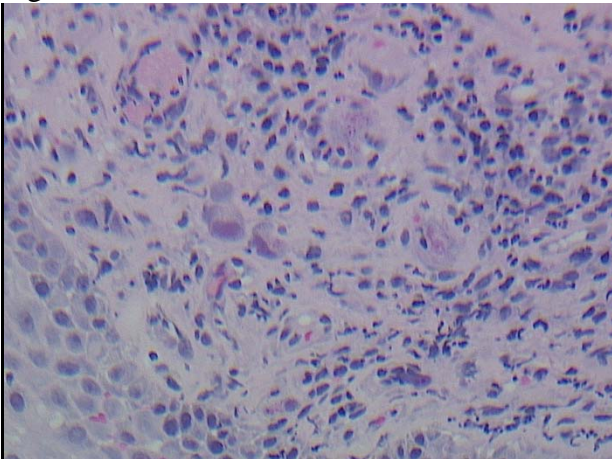
- A. Fluconazole
- B. Ganciclovir
- C. Acyclovir
- D. Steroids
- E. Proton pump inhibitor

Figure 1:



(Images courtesy of Julian Perez, MD Gastroenterology department, Susan Summerton, MD Radiology, Albert Einstein Medical Center, Philadelphia)

Figure 2:



(Image courtesy of Julian Perez, MD Gastroenterology department, Ronald Miick, MD Pathology department, Albert Einstein Medical Center, Philadelphia)

Answer: B

Written explanation of answer: CMV ulcers are usually located in the middle or distal esophagus and are characteristically deep, with a halo of edema. This appearance is identical to the large idiopathic esophageal ulcerations associated with HIV infection. The diagnostic feature of CMV with hematoxylin-eosin (H&E) staining is a central dense eosinophilic inclusion with a surrounding halo, which leads to an owl's eye nuclear inclusion appearance. It may also show basophilic granular cytoplasmic inclusions. Ganciclovir, valganciclovir, foscarnet, cidofovir and fomivirsen have proven useful in the treatment of cytomegalovirus (CMV) infections in immunosuppressed patients.

References:

1. Reeders JW, Yee J, Gore RM, Miller FH, Megibow AJ. Gastrointestinal infection in the immunocompromised (AIDS) patient. *Eur Radiol.* 2004;84:102.
2. Field AS. Light microscopic and electron microscopic diagnosis of gastrointestinal opportunistic infections in HIV-positive patients. *Pathology.* 2002;34:21-35.
3. De Clercq Antiviral drugs in current clinical use *J Clin Virol.*2004 Jun;30(2):115-33