H76 Acute Infectious Esophagitis: Three Cases With Variable Etiologies

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Learning Overview: After attending this presentation, attendees will: (1) appreciate the common and rare etiologies of acute infectious esophagitis; (2) compare and contrast the gross and histologic findings of acute infectious esophagitis; and (3) understand the risk factors and clinical outcomes for those with acute infectious esophagitis.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by highlighting rare findings found at autopsy on decedents with acute infectious esophagitis.

Acute infectious esophagitis is a condition that is typically caused by viral or fungal infections. The most common cause of fungal esophagitis is *Candida* species, while herpes simplex virus and cytomegalovirus are the most common culprits of viral esophagitis.[1] Acute infectious esophagitis of bacterial etiology is exceptionally rare, particularly when caused by *Sarcina ventriculi*, a human pathogen discovered in 1842 that typically affects the gastrointestinal tract, with fewer than 20 cases reported.[2] The most common reported risk factors include immunosuppressive agents, diabetes, and long-term antibiotic use. Patients with infectious esophagitis will typically present with dysphagia, and it is classically diagnosed after performing an endoscopy exam and looking at biopsy samples histologically. Tissue cultures are also routinely performed to help identify the pathogen as well as hone in on more specific treatments. Gross and histologic findings can be variable, ranging from non-specific erythema and inflammation, to pathogen-specific discoveries like diffuse white plaques (thrush, *Candida* species) or viral inclusions of the cytoplasm or nucleus. Acute infectious esophagitis can also be discovered upon autopsy and possibly deemed contributory to the cause of death.

Three separate cases of acute infectious esophagitis are presented; one solely of fungal etiology, one of fungal etiology with embedded maggots, and one of bacterial (*S. ventriculi*) etiology—all discovered at autopsy at the Medical University of South Carolina in Charleston, SC. All three cases were forensic autopsy cases, authorized by local coroner jurisdiction. Two of the three decedents were male, with an age-range of 59–75 years old. All three decedents had a medical history significant for Hypertensive Arteriosclerotic Cardiovascular Disease (HASCVD), and all three were incidentally found unresponsive. Manner of death was natural in all three cases with the cause of death differing and only one having acute esophagitis included in the immediate cause. A literature review is performed to correlate the case findings with previously described entities, as well as discuss the etiology, the clinical, and the pathological presentations of acute infectious esophagitis.

Reference(s):

1. Wilcox, C. Mel. Infectious Esophagitis. *Gastroenterology & Hepatology* 2, no. 8 (August 2006): 1–3.
2. Rasheed, Mohamed Rizwan Haroon Al, and Carmencita G. Senseng. *Sarcina Ventriculi*: Review of the Literature. *Archives of Pathology & Laboratory Medicine* 140, no. 12 (2016): 1441–45. https://doi.org/10.5858/arpa.2016-0028-rs.

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