Clinical microbiological case: esophago-airway fistula in an AIDS patient
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CASE REPORT

A 36-year-old man with acquired immunodeficiency syndrome (AIDS) complained of days of painful swallowing and an intractable cough. The patient was not eating or drinking because of the painful swallowing. The medical history included the diagnosis of AIDS (last CD4 count of 1 cell/µL with a viral load of >750 000 copies/mL), active hepatitis B, and polysubstance abuse including the intravenous use of illicit drugs. The CD4 count had been <50 cells/µL for the last 3 years. He was known to be non-compliant with treatment regimens and had had one episode of esophageal thrush in the past. On physical examination there was thrush present on the buccal membranes. He was afebrile and dehydrated. He was given intravenous fluids and intravenous amphotericin B for 3 days for presumptive esophageal candidiasis. There was no improvement in the symptoms and esophagogastroduodenoscopy was performed. This revealed a 1.5 cm × 1.5 cm ulcerated lesion about 30 cm distal to the incisors with a separate lesion proximal to the ulcer which appeared to be deep. The patient could not perform a swallowing study due to odynophagia. Bronchoscopy was performed which revealed a 1-cm esophago-airway fistula in the left main bronchus. An esophageal stent was placed, which restored the ability of the patient to swallow, but the pain continued. The biopsy of the esophageal ulcer demonstrated an active ulcer with nodular histiocytic proliferation (Figure 1). Biopsy material was not submitted for culture. The patient refused further treatment and left the hospital. He died 4 months after discharge.

QUESTIONS

1. What are some infectious causes of esophago-airway fistulas in AIDS patients?
2. What are some ways that one can identify the acid-fast organisms in the tissue if a culture was not obtained?
3. What is appropriate therapy for this (these) micro-organism(s)?
4. Aside from the therapy directed to the acid-fast micro-organism what other therapy could possibly improve the health status of this non-compliant patient?