A 56-Year-old female who received chemoradiation for bronchogenic carcinoma presented with dysphagia and odynophagia four months after the last dose of chemotherapy. Clinical examination was unremarkable. Her blood investigations showed anemia and leucocytosis. Renal and liver function tests, and electrolytes were normal. Ultrasonogram of abdomen was normal. ELISA for human immunodeficiency virus was negative. Upper gastrointestinal endoscopy showed mucosal ulceration with narrowing of lumen (Figure 1). Biopsy taken from the ulcer revealed extensive areas of necrosis admixed with inflammatory infiltrate, partly viable smooth muscle in one focus and rounded mass of faintly discernable tangles of bacillary organisms (arrow) (Figure 2A). With Periodic Acid Schiff stain branched filaments of actinomycyes were seen (Figure 2B, 40x). There was no evidence of malignancy or viral inclusion bodies and special stains were negative for cytomegalovirus and herpes simplex virus. A diagnosis of esophageal actinomycosis with radiation induced esophageal stricture was made. She was treated with Penicillin G 20 million units per day in divided doses. After 2 weeks of treatment patient had a good symptomatic recovery but mild dysphagia persisted.

Figure 2: (A) Hematoxylin and eosin stain 10x showing rounded mass of faintly discernable tangles of bacillary organisms (B) PAS stain 40x showing branched filaments of actinomycyes

Esophageal actinomycosis is a rare condition and has been reported in HIV patients and with superinfection with cytomegalovirus ulcer[1,2]. Our patient had bronchogenic carcinoma, treated with radiotherapy and chemotherapy developed esophageal actinomycosis. This image is presented for its interesting findings.

References

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