

**Title:** Aortic Endograft Histoplasmosis Infection and Treatment

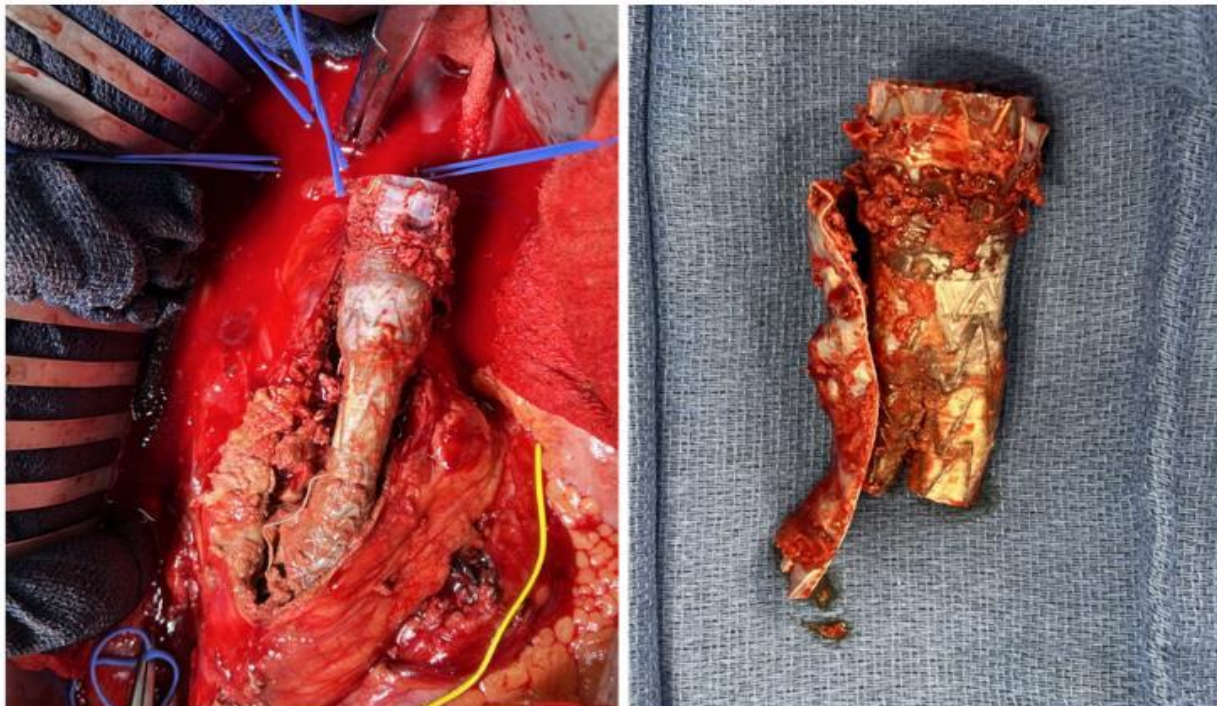
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**Purpose:** Endovascular aortic repair (EVAR) has become an attractive treatment for thoracic and abdominal aortic aneurysms rather than open surgery, boasting a better short-term safety profile. The risk of infection in EVAR procedures has been reported as low as 0.1% to 0.77% and are generally bacterial. Infection is an important complication because mortality rates of 18-25% have been reported. In the immunocompetent patient, fungal aortic endograft infections are exceedingly rare, reportedly caused by local source or disseminated infection. We discuss the case of a 71M with disseminated histoplasmosis seeding an endograft treated with explant and open repair.

**Materials and Methods:** Chart review was conducted of a patient who suffered from Type 1A/1B endoleaks after EVAR placement 5 years prior who required endograft explant with open infrarenal aortic aneurysm repair.

**Results:** A 71-year-old male with past medical history significant for hypertension, an anal wound that had cultured positive for Histoplasmosis, and juxta-renal abdominal aortic aneurysm (AAA) status post repair in 2018 at outside hospital presented in 2023 for abdominal pain. The patient had a CT scan that disclosed Type 1A/1B endoleaks. The patient had maintained follow-up at a different facility and a persistent expansion of AAA was noted with the trend of 5.5cm (2018)>5.7cm (2019)>7.2cm (2022); at time of admission, the patient's AAA dimensions were 7.5x7.0cm on CT. The patient had no fevers, chills, nausea, or vomiting and had a normal white blood cell count. The patient elected for open repair with explant of endograft material and placement of bifurcated dacron graft (R aortoiliac, L aorto-femoral). Intraoperatively, there was concern for an irregular, fragile aortic wall with signs of erosion surrounding the graft without frank signs of infection, therefore cultures were taken and a piece of the sac wall and endograft were sent for pathology evaluation.

**Figure 1** (Left) Intraoperative photo taken of graft prior to explantation. (Right) Explanted aortic graft.



The samples showed fungal growth, identified as Histoplasmosis, and the patient was started on Amphotericin B. Further workup was negative for HIV, cryptococcus, or Blastomyces. At 3 month follow up, the patient noted some issues with drainage from his L groin incision that significantly improved after 2 weeks of Augmentin. His 30-day CT scan showed a stable repair with a stable aneurysm sac. The patient has been following up with his colorectal surgeon and infectious disease clinic for long-term treatment of histoplasmosis and has been on systemic antifungal therapy since discharge.

**Conclusions:** In conclusion, despite low-preoperative suspicion of infection, patients may still be harboring systemic infections. Infection should always be considered as the underlying etiology of a continually degenerating aortic aneurysm in a patient with a chronic infection at another body site.