



Case illustrated

Disseminated cryptococcosis with gastric and thyroid involvement

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ABSTRACT

This is a case of disseminated cryptococcosis with gastrointestinal and thyroid involvement. This case illustrates that gastrointestinal and thyroid involvement may be an under-recognized phenomenon. Suspicion should be high in an immunocompromised patient with odynophagia and a thyroid nodule and warrants further investigation by endoscopy and fine needle aspiration biopsy.

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A 30-year-old woman with a history of HIV complicated by non-adherence to antiretroviral therapy and history of cryptococcal meningitis four years prior, presented with three weeks of headache, dry cough, odynophagia, vomiting, fatigue, and weight loss. On presentation, she was afebrile and tachycardic and physical exam was significant for cachexia with oropharyngeal candidiasis and a palpable left thyroid nodule. CT of the chest showed miliary pattern with micronodularity throughout the lungs. Laboratory evaluation revealed CD4 count < 20 and HIV viral load of 33,600 copies/mL, serum cryptococcus antigen titer of 1:65536, blood cultures positive for cryptococcus and TSH of 4.0. Lumbar puncture revealed positive CSF cryptococcus titer of 1:32768 and a positive culture for *Cryptococcus neoformans*. The patient underwent bronchoscopy with bronchoalveolar lavage culture positive for cryptococcus. CT of the soft tissue neck revealed a paraesophageal rim-enhancing fluid collection with a walled-off lumen, and an enlarged thyroid gland with a left thyroid nodule. An endoscopy ruled out a gross esophageal perforation but revealed a 12 mm cratered ulcer in the gastric body with biopsies positive for cryptococcus (Fig. 1). A thyroid ultrasound revealed a heterogeneous nodule measuring 3.8 × 2.4 × 1.6 cm with fine needle aspiration biopsy revealing cryptococcus. Induction therapy was initiated with amphotericin b 5 mg/kg per day and

flucytosine 15 mg/kg every 6 h for a total of 14 days. The paraesophageal abscess resolved with treatment with Amoxicillin-clavulanic acid for 2 weeks and was confirmed by a CT of the neck. The patient had complete resolution of her symptoms and was discharged on fluconazole 800 mg daily.

Cryptococcus neoformans is an AIDS defining illness and can result in disseminated disease, most commonly involving the central nervous and pulmonary systems. Gastrointestinal and thyroid involvement is rarely described. Gastric cryptococcus has been primarily reported in postmortem autopsies [1]. The cases with symptoms included odynophagia, diarrhea, nausea, vomiting and melena, although the majority were clinically silent [2]. There are only 4 cases described in the literature reporting thyroid cryptococcal infection [3]. Clinical presentations included symptoms from thyroid enlargement and subacute thyroiditis [4]. Our patient had odynophagia, vomiting and a palpable thyroid nodule. She was found to have a para-esophageal abscess, gastric cryptococcus and infectious thyroiditis. In this case, endoscopy and fine-needle aspiration biopsy uncovered the presence of cryptococcus in the gastric fundus and thyroid respectively. This report aims to demonstrate thyroid and gastrointestinal involvement is an under-recognized phenomenon and suspicion must be high in an immunocompromised patient with odynophagia and a thyroid nodule.

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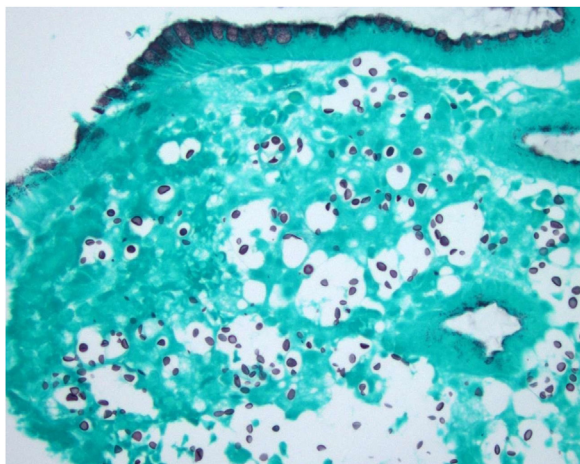


Fig. 1. Abnormal mucosa of the gastric fundus highlighting fungal organisms present in the stroma consistent with budding yeast of *Cryptococcus neoformans*.

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Informed consent was obtained for publication of this case report and accompanying images.

Consent

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Declaration of Competing Interest

No conflicts of interest. Nothing to Declare.

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