**Introduction**
Cryptococcosis is an invasive fungal opportunistic infection well recognized in HIV seropositive patients. We present an interesting case of cryptococcal meningoencephalitis in a HIV seronegative patient several years post organ transplant.

**Case Presentation**

**History of Present Illness**
A 59 y/o male was evaluated in the emergency department for acting strangely at home and headaches for 1-2 weeks. Headaches were characterized as sharp pain located in temporal region, intermittent, 4-5/10 intensity, no radiation. He was empirically treated for viral meningitis and discharged home. Due to an elevated tacrolimus level, he was readmitted for continued symptoms. On review of systems, he complained of fevers, nausea, and vomiting.

**Past Medical History**
Brittle diabetes mellitus, CAD s/p PCI, HTN, hypothyroidism, hyperlipidemia

**Past Surgical History**
Renal and pancreatic transplant

**Social History**
Lives in Napa Valley with wife, previous cellar manager

**Medications**
Aspirin 81 mg daily, Mycophenolate 350 mg daily, Lovastatin 10 mg qdaily, prednisone 5 mg qdaily, Metoprolol 50 mg BID, Levothyroxine 150 mcg qdaily, Flucytosine 2 mg BID, Ticlopidine 250 mg qdaily, prednisone 5 mg qdaily, Metoprolol 50 mg BID

**Physical Exam**

**Labs**

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Tacrolimus trough: 14.6

**Investigative Studies**

**Figure 1.** Round yeast cells on corn meal agar

**Figure 2.** Culture of creamy mucoid colonies of *Cryptococcus* on Sabouraud’s agar

**Figure 3.** Urease positive *Cryptococcus*

**Hospital Course**

**Diagnosis**
CSF fluid analysis and CSF cryptococcal Ag testing are key in diagnosis. Elevated opening pressure, lymphocytic predominance, low glucose, and elevated protein are common. CSF cultures grow white, mucoid colonies, urease positive, and India ink staining. Imaging may show hydrocephalus, however usually is normal.

**Treatment**
Induction therapy for organ transplant patients includes liposomal amphotericin B and flucytosine for 2 weeks. Prior to proceeding to consolidation therapy, lumbar puncture should be performed until CSF becomes sterile or opening pressure normalizes. Consolidation therapy is with fluconazole for 2 months then maintenance with lifelong fluconazole.

**Discussion**

**Epidemiology**
Cryptococcosis is seen in the immunosuppressed (AIDS, prolonged treatment with glucocorticoids, organ transplantation, malignancy, and sarcoidosis). It is the third most common fungal infection among solid organ transplant recipients. Most cases usually occur between 1 and 3 years post transplant.

**Pathogenesis**
*Cryptococcus neoformans* is a basidiomycetous encapsulated yeast subclassified into 4 serotypes and 2 varieties. Serotype A is classified as *variety grubii*. *C neoformans* is associated with soil samples contaminated by pigeon or chicken excrement or associated with rotting vegetation. Following inhalation and hematogenous dissemination, *C neoformans* has a propensity to localize to the CSF.

**Clinical Signs and Symptoms**
Cryptococcal meningoencephalitis symptoms may be acute or subacute including headache, fever, seizures, neurologic changes, or personality changes.

**Conclusions**
1. *Cryptococcus* is a common opportunistic infection in HIV patients, however it is important to consider in those with other deficits in cell mediated immunity.
2. Our case is unique because he presented 8-10 years post-transplant with most cases presenting > 1 year, but < 3 years.
3. A high index of suspicion for CNS infection warrants a lumbar puncture as timely diagnosis and treatment is essential given the 31-66% mortality associated with Cryptococcal meningoencephalitis.

**References**