

# Is cellulitis always cellulitis? Unusual manifestation of an invasive cryptococcosis in solid organ transplantation: Case report

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# Introduction



- Cryptococcus is
  - an environmental fungus exist in the nature
  - the third most common invasive fungal infection in SOT recipients
- The mortality rates for all types of solid organ transplant patients with cryptococcosis vary from 14% to 19.6% and can reach up to 50% in recipients with meningitis

# Case



- A 65-year-old male patient
  - with a history of kidney transplantation 10 years ago
  - was admitted to outpatient clinic for erythema and edema on the dorsum of his left foot
  - had no history of trauma
  - Was diagnosed with cellulitis due to leukocytosis and elevated CRP levels with his symptoms, and subsequently got oral antibiotic therapy
- One week after the redness subsided, the discomfort intensified and CRP levels elevated further

## Case

Foot MRI revealed osteomyelitis in his fifth metatarsal bone (figure 1)

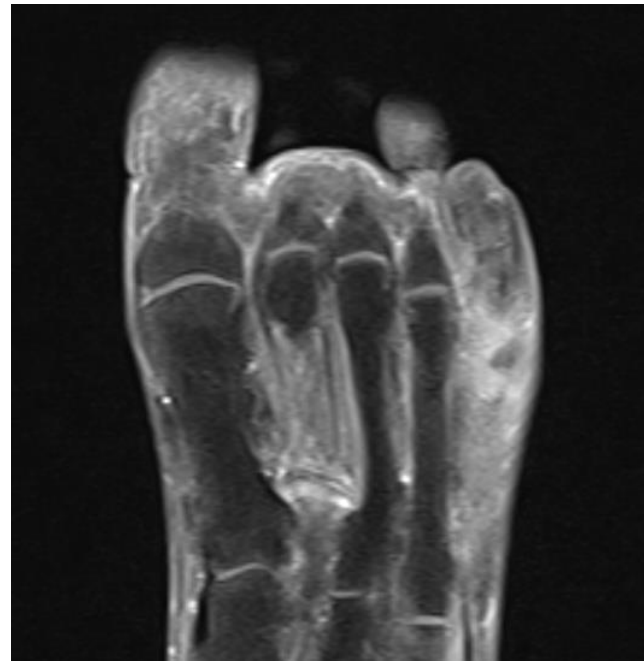


Figure 1: MRI of the foot

## Case

- Following 6 weeks of IV antibiotic treatment, a fistula developed, leading to a debridement surgery for sampling
- *Cryptococcus neoformans* serotype A was isolated from tissue culture and fluconazole treatment was initiated.
- A nodular lesion was observed in his chest CT scan despite the lack of respiratory symptoms (figure 2)



Figure 2: Chest CT scan

# Case

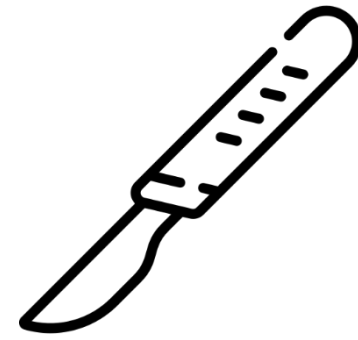
- **Neurologic involvement:**

- There were no neurological symptoms or meningeal involvement observed in the cranial MRI
- But positive *Cryptococcus neoformans* latex agglutination test was detected in the cerebrospinal fluid analysis
- Treatment replaced to liposomal amphotericin B for disseminated disease involving central nervous system

- **Urogenital involvement:**

- During the same week, prostate imaging was conducted due to urinary retention, and an abscess was examined
- *Cryptococcus neoformans* serotype A was cultured from the abscess after it was drained

## Case



- **Treatment:**

- Following a 4-week course of Liposomal amphotericin B treatment, antifungal medication was changed to fluconazole and continued for 12 months until full recovery and no complications or immune reconstitution inflammatory syndrome (IRIS) occurred

## Conclusion



- Cryptococcosis should be considered in the differential diagnosis of cellulitis and osteomyelitis in renal transplant recipients
- For effective management; it is essential to evaluate all systems of the patient even though he has no symptom or sign and utilize all microbiological and molecular techniques available
- Early identification plays a critical role in determining the prognosis of this illness