



## A Rare Case of Cryptococcal Meningitis in Immunocompetent

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### I. INTRODUCTION

Cryptococcal infection in humans tends to be caused by *Cryptococcus neoformans*, and it is generally found in immunocompromised hosts. Globally, the annual incidence of the cryptococcal disease is approximately 1 000 000 new cases, and over 600 000 patients die with this infection each year. In Immunocompromised host global incident was 278000 cases. In Immunocompetent host global incident was 2/100000.

### II. CASE REPORT

A 17-year-old boy presented with headaches, fever and altered sensorium for last 6-8 days.

Patient was febrile to 39.3°C; vitals were within normal limits. His examination was remarkable for a Glasgow Coma Scale score of

14/15 (verbal response mildly slowed), disorientation to person, place, and date and signs of meningitis was present. There was no focal neurological deficit

Routine blood investigation was normal. CT Head Plain was Normal.

Laboratory Testing CSF result

Fungal culture of CSF-

INDIA INK- Positive for Cryptococcal species.

CBNAAT of CSF- M TB not detected.

HIV- Non Reactive.

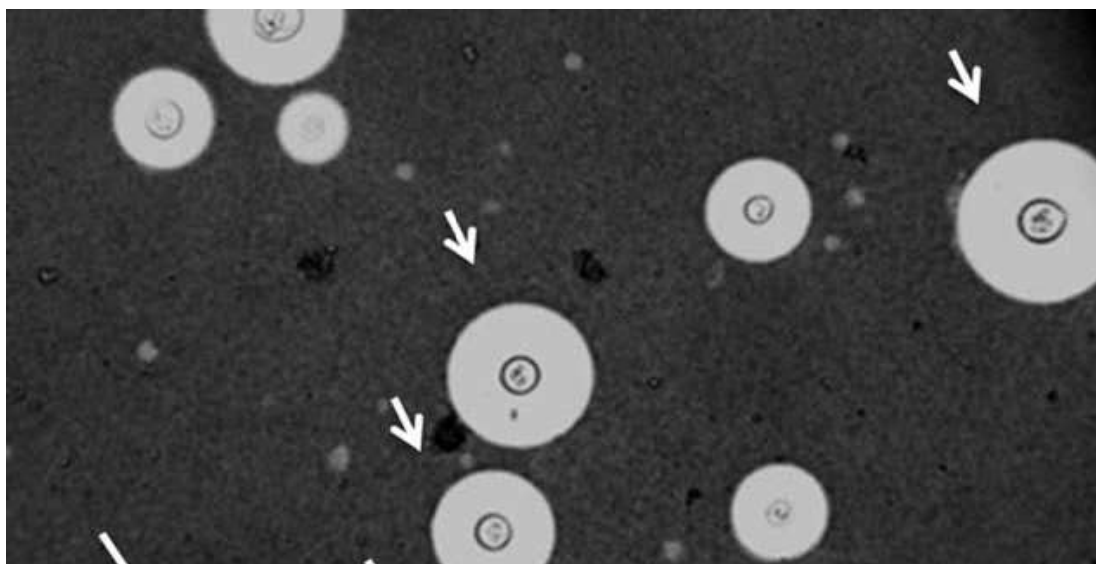
HBsAg/HCV - Non reactive.

Patient was treated with-  
intravenous fluid

Injection Amphotericin B 40mg IV OD for 14 days

Injection Pantoprazole 40mg IV BD

Tablet Paracetamol 500mg BD



India ink stain of Cryptococcal species. Showing capsule.

### III. DISCUSSION & CONCLUSION

*Cryptococcus neoformans* is most classically associated with exposure to bird droppings, though the exact relationship between exposure and disease is not clear. Meningitis is thought to result from inhalation of the organism

from the environment into the respiratory tract, with hematogenous dissemination to the central nervous system .

*Cryptococcus neoformans* meningitis is a rare cause of disease in immunocompetent individuals. The mechanism by which



presumptively immunocompetent hosts contract cryptococcal disease is not fully understood, but illness in these individuals may result from particularly

- 1) High level of organism exposure.
- 2) Exposure to a cryptococcal strain with increased pathogenicity.
- 3) Subtle or undetectable immune deficit in the host.

When frank immunosuppression is not evident, other causes should be ruled out. cryptococcal meningitis without a known underlying immunocompromised is often delayed in presentation due to the frequently subacute nature of symptom development. A diagnosis of Cryptococcal meningitis should be considered in any patient with signs and symptoms of meningitis.

#### **REFERENCES**

- [1]. Harrison's Principles of internal medicine 20th Edition
- [2]. Mada P, Nowack B, Cady B, Chandranesan ASJ. Disseminated cryptococcosis in an immunocompetent patient. BMJ Case Rep. 2017;2017:bcr-2016-218461.