Objective: Cryptococcus affects more than one million people per year worldwide. Despite the worldwide emergence of this ubiquitous pathogen, little is known about the global molecular epidemiology of this fungal pathogen. The ecological niche of the oogonial stages of C. neoformans and C. gattii are not well established yet in various parts of India.

Methodology: The present study was performed on the C. neoformans isolated from the Eucalyptus tereticornis at Varanasi, India. A total of 245 samples including flowers, leaves, bark, and nearby soil of E. tereticornis. The fungal pathogens were identified by both the conventional and molecular methods. The isolates were also grown in SDA and tobacco agar medium. In addition, all isolates were identified on the basis of different biochemical tests such as urease test and carboxymethyl- 

Conclusion: In spite of a major Eucalyptus growing region of India, there is no report of C. neoformans/C. gattii-Eucalyptus association from Eastern Uttar Pradesh. Therefore, the current study would certainly be helpful in the establishment of molecular epidemiology of Cryptococcus in this area.

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African Woman With a Knee Knicked by a Rare Dematiaceous Fungi

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Objective: Introduction: Incidence of fungal post-prosthetic joint infection (PFJ) is rare (1%-3%) and the majority are caused by Candida and Aspergillus. We report a post-prosthetic knee joint infection caused by a rare dematiaceous fungi—Phaeostromatophora richardiae, probably the first case in the world.

Method/Case Details: A 79-year-old East African female from Malawi, housewife, with no known medical conditions presented with a chronic history of left knee pain and pus discharge. She had left knee pain since 2008 and was given several intra-articular injections between 2008 and 2010 for pain relief suspecting osteoarthritis. She denied a history of splinter injuries, trauma, systemic, or constitutional symptoms.

In 2010 she underwent left total knee replacement (TKR) in the USA, but the pain persisted post-operatively associated with ametrastomum swelling of both knees. She was evaluated again in 2017 and revision left TKR done with single-stage exchange. She was asymptomatic for a few years but symptoms returned again and drainage of pus from her left knee started in December 2019. She was treated in Malawi with multiple courses of penicillam and oral antibiotics but did not improve.

She presented to our hospital in January 2022 with swelling in left knee and restriction of movements. On examination, a discharging sinus was noted on the medial aspect of left knee. She was afebrile with a normal leucocyte count, HbN negative, ESR of 85 mm/h, and CRP of 25 mg/L. Her renal and liver function tests were normal. CT left leg with contrast showed features of chronic osteomyelitis of left distal femur and proximal tibia with active sinus tract in left tibia. Sinoar tract excision with removal of prosthesis, debridement, and antibiotic cement spacer insertion was done. Bone and post-prosthetic tissue were sent for histopathology and molecular analysis including fungal and mycobacterial cultures. Xpert MTB was negative.

Histopathology showed granulomatous synovitis with fungal hyphae and yeast. Cultures grew a slender septate dark pigmented fungus, Phaeostromatophora richardiae which was confirmed by fungal PCR sequencing of internal transcribed spacer (ITS) region.

Result/ Treatment: She was treated with Liposomal amphotericin B 5 mg/kg IV OD for 2 weeks followed by oral Itra- 

conazole. She had paramount causative inflammatory markers at 4 weeks which settled after changing to posaconazole for 2 weeks. Conservative management will continue for 3-6 months with second stage revision arthroplasty/arthrodesis later.

Conclusion: Dimatiaceous fungi usually cause skin and soft tissue infections and they are extremely rare in causing prosthetic joint infection. Case reports of P. richardiae causing osteomyelitis of foot and mid-calf are available but we couldn’t find a published case of prosthetic joint infection caused by it. Identifying the causative organism in PFJ is the most important step because the management depends mainly on it.

Two-stage exchange in combination with antifungal administration between stages and post-versions should be the procedure of choice for fungal PFJ. Incorporation of antifungal agents into cement spacers appears to be effective in eradicating local infections and reducing the duration of antifungal treatment and should be strongly considered.