Background and Objectives: The emerging pathogen, C. auris, has been associated with nosocomial outbreaks in recent times. The true scale of the problem is difficult to comprehend due to several issues with the identification of C. auris using both phenotypic and molecular techniques. Most commonly, these isolates have been misidentified as C. krusei/mL. Biofilm formation is strongly suggested given its association with invasive care settings, especially in patients with CVCI and long-term urinary catheters. Many isolates of C. auris have also shown raised MICs to multiple classes of antifungal agents, causing the possibility of pan-resistant strains.

Objectives: To study the demographic characteristics, risk factors, and outcomes in patients with C. auris infection.

Methodology: This is a retrospective study from a tertiary care hospital (JIPMER, Puducherry) including all patients from the time period of 2018-2022 that showed growth of C. auris in any site. C. auris was identified using conventional methods (galactose growth on chromogenic medium, no pseudohyphae on germ-tube test, growth in presence of 10% NaCl) and VITEK-2. To reduce the misidentification and the inherent variability, the results were confirmed with MALDI-TOF. The risk factors and other patient information were taken from the HIS. Statistical analysis was performed.

Results: During the study period, a total of 31 patients had a C. auris infection. The most common age group was 20-40 years (n = 11,44%) with a predominance in males (n = 23,75%). A total of 74% of the infections were found in blood, which was the most common site of infection followed by urine (18%). The other sites were post-mortem (n = 2), groin, tailbuds, and CVP tip (n = 1). Most of the cases were ICU patients (48%). All the patients with candidiasis due to C. auris (n = 17/18) had CVCI, had surgery within the past 30 days, and were on broad-spectrum antibiotics and PNP. 71% (n = 12) had a history of immunosuppression and 18% (n = 14) had a history of prior antifungal therapy. Although 109% (n = 17) had the presence of an indwelling urinary catheter, none of them had candidiasis due to C. auris. No patient with C. auris infection had neutropenia. The median LOS was 34.5 days. Most of the isolates were resistant to fluconazole (n = 13,93%), amphotericin B (n = 13,93%), voriconazole (n = 6,55%), and flucytosine (n = 10,71%). A total of 47% (n = 12,88%) of isolates were sensitive to caspofungin and micafungin by VITEK-2 (limitation of this study). In all, 24% (n = 7) of the patients died when 40% (n = 10) were discharged. A total of 71% patients had clearing of the persistent candidaemia when treated with caspofungin whereas only 25% patients had clearing of the candidaemia when treated with voriconazole.

Conclusions: Most cases of C. auris infections were found in critical patients with the most common presentation being candidaemia. The risk factors are similar to any other Candida infection. Caspofungin is the emerging antifungal-resistant fungus and poses an additional burden to the healthcare system. The fungus has high crude-mortality rate and we are running out of treatment options. A comprehensive intervention program with ongoing surveillance and good AMR practice is the need of the hour to reduce the burden of this dangerous pathogens.
Objectives: Chronic pulmonary aspergillosis (CPA) commonly affects post-necrotic (TB) patients. However, the incidence of TB in this group is also increasing being reported in patients with active TB. The study aimed to identify the clinical, radiological, and serological characteristics of probable CPA patients versus proven TB with GenXpert positive and clinically diagnosed TB (GenXpert negative) in early TB therapy.

Methods: All patients were on anti-tuberculosis therapy in the early phase (0–2 months). Clinical profiles and radiology findings were collected from hospitals in Jakarta and Depok, Indonesia. Aspergillus antibodies were measured using Immuno-Mycologics Sporothrix ELISA Sensitivity assay with GenXpert positive antigen in early TB therapy.

Results: A total of 70 patients with a median age of 37 years were studied. Overall, 29% (n = 20) met the criteria for proven or probable CPA. The rate of CPA in GenXpert positive patients was 50%, whereas it was only 14% in GenXpert negative patients (P < .001). Most of CPA patients had GenXpert result intermediate (n = 7, 35%); 4 of them (20%) had high levels of TB pressure. Cough was the most common symptom in GenXpert positive groups (n = 11, 55%). Fatigue was frequently found in GenXpert negative groups (n = 4, 20%). The proportion of c-reactive protein (90% vs 44%), paracardiac masses (70% vs 26%), and pleural thickening (60% vs 24%) were significantly higher in CPA patients. The median score of Aspergillus antibodies in non-CPA patients was lower (7-77 range 3.1-13.1 mg/mL) compared with CPA patients (13.9, range 4.9-144 mg/mL) (P < .004).

Conclusion: Aspergillus spp is a fatal fungal pathogen that might cause co-infection with active TB patients. The measurement of Aspergillus antibodies is a hallmark for the diagnosis of CPA. The concordance of CPA in active TB patients is underdiagnosed.