P272 Fungal brain abscesses in the era of COVID-19: an experience from a tertiary care Neurosciences Institute in South India
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Poster session 2, September 22, 2022, 12:30 PM - 1:30 PM
Introduction: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is ruling the world for more than 2 years since 2020. In 2021, the second wave of COVID-19 arrived at the “delta variant” across Europe, causing significant morbidity and mortality. In addition, the epidemic of COVID-19-associated mucormycosis affected the Indian subcontinent specifically, with a whopping 41,512 cases and 3554 deaths attributed to this deplorable disease.
Methods: The single-center retrospective cross-sectional study was aimed to determine the impact of COVID-19 on fungal brain abscesses at a non-COVID tertiary care Neurosciences Institute in South India. The study included all cases diagnosed with fungal brain abscesses microbiologically (microscopy and/or fungal culture), supported by radiological findings or by histopathological examination. Cases of brain abscess which were negatives for fungal elements by microscopy, culture, and imaging were excluded from the study. Fungal culture was done on routine mycological media as per standard procedures.
Results: In the present study, 238 cases were included, out of which 130 were fungal brain abscess cases confirmed by microscopy and/or fungal culture. Among these 130 cases, 75 cases were positive in the first test, and 55 cases were positive in the second test.
Conclusions: Fungal brain abscesses cases till date are fewer in number than that of bacterial brain abscesses. With the increase of fungal cases post-COVID-19, it is imperative to increase awareness about the laboratory investigation to diagnose, treat, and manage the cases early to improve the outcome.

P273 Dematiaceous fungi as a rare cause of fungal sinusitis in a tertiary care center
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Objectives: To discuss the occurrence and diagnosis of dematiaceous fungi as a causative organism of fungal sinusitis in patients at a tertiary care center in North India. Since there is limited data on its prevalence, this study was aimed to know the non-A. flavus species of fungi causing sinusitis focusing on the dematiaceous fungi.
Methods: A total of 453 nasal biopsy samples, from the dermatology and otorhinolaryngology department in a medical center with ear, nose, and throat (ENT) Ward were received over a period of 3 years, from January 2019 to December 2021. The samples were subjected to conventional mycological diagnostic techniques including direct-epifluorescence and light microscopy, culture on solid media and visual identification of growth in culture using lactophenol cotton blue mount.
Results: Of 453 samples, no fungi were isolated from 299 samples (64.29%), Aspergillus spp. from 63 samples (13.94%), dematiaceous fungi from 15 samples (2.13%), and other fungi from 79 samples (17.5%). Among the dematiaceous fungi isolated, 7 isolates were identified as Alternaria spp. (70%) and 1 isolates were identified as Curvularia sp. (10%) and described.
Conclusion: Most reported cases of allergy and inverte sinusitis were attributed to Aspergillus spp. However, in the current study, dematiaceous ‘Black’ fungi like Alternaria and Curvularia, were also identified as causes of sinusitis in both immunocompromised and immunocompetent individuals, showing an increasing orthogon pattern. Hence a high index of clinical suspicion and appropriate laboratory diagnosis are necessary in treating appropriate treatment such as surgical debulking, reducing immunosuppression, and antifungal treatment with newer azoles.

P274 Molecular epidemiology of clinical filamentous fungi in Qatar beyond Aspergillus and Fusarium
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Objectives: Due to an increasing number of patients at risk, (i.e., with a highly compromised immune system and/or receiving aggressive chemotherapy treatment), invasive fungal infections (IFIs) are increasingly being reported. They are associated with significantly high mortality rates. Aspergillus spp., particularly A. fumigatus, is the major cause of mold-related IF in the world followed by Fusarium spp., however, other molds are emerging as human pathogens. The aim of this study was to explore the epidemiology and prevalence of the non-Aspergillus and non-Fusarium molds in human clinical samples over 11 years period in Qatar based tertiary hospital using molecular techniques.
Methods: A total of 91 clinical specimen positives for molds belonging to 90 patients were recorded in about 11 years (September 2011 to November 2024). The isolates were identified based on morphological characteristics and by sequencing the internal transcribed spacer 2 (ITS2) gene. To confirm the identification, a phylogenetic tree based on ITS sequences was constructed.
Results: Most patients were males (72%), 6% were immunocompromised, 12% had IFI, and 7% had died within 30 days of diagnosis. The fungal isolates were recovered from a variety of clinical samples, including nails, skin, bone, scalp, nasal cavity, wounds, respiratory sample, body fluid, eye, ear, tissue, abscess, and blood specimen. Dematiaceous fungi were the most isolated (539/36%), followed by dermatophytes (259/27%), Mucorales (169/18%), and other hyaline molds (159/17%). (Table 1) Alternaria was the most isolated genus (229/24%), and Scedosporia were the major causes of IF (531/45.5%).
Conclusion: The current study highlights the epidemiology and spectrum of mold genera, other than Aspergillus and Fusarium, recovered from human clinical samples in Qatar, which can aid in surveillance of emerging and emerging molds other than aspergillus and fusarium.

P275 Pulmonary aspergillosis: a case report
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COVID-associated invasive pulmonary aspergillosis (CAPA) — a case report
COVID-associated invasive pulmonary aspergillosis is a severe fungal infection with a high mortality rate. The incidence of CAPA is on the rise possibly due to the prescription of corticosteroids and tocilizumab two repurposed drugs used for treating SARS-CoV-2. Diagnosis is challenging due to the non-specific nature of symptoms. Voriconazole is the mainstay of therapy. We present a case of a 46-year-old male presenting with left hydro pneumothorax post recovery from COVID infection, and later succumbed to this complication. Patients developing pulmonary aspergillosis after short-term steroid therapy is uncommon. The possibility of aspergillosis in immunocompromised patients should be considered in those on systemic steroids and demonstrating pulmonary function.

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