P180
An uncommon case of cutaneous basidiolemomycosis in a young adult — a case report

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Basidiomycosis is an uncommon fungal infection of the subcutaneous tissue of the lower limbs caused by Basidiobil-
us tamari. It presents as diverse granulomatous inflammation of the skin and subcutaneous tissues affecting the immune-
competent young adults.

We report a 15-year-old male who presented with soft tissue swelling of the left lower limb for the past 4 months. He
had consulted a private hospital previously where he underwent incision and drainage and was prescribed multiple antibiotics.
As there was no resolution of the symptoms, he presented to us with swelling of the thigh and 1 × 1 cm size non-healing ulcer over
the posterior aspect at the site of incision with inflammation of the surrounding tissues. On examination, the surrounding
 tissues also showed induration and warmth. The routine blood investigations were normal and serology for HIV
was also negative. The pus aspiration was cultured in Sabouraud’s Dextrose agar and incubated at 25°C showed growth of
yeast, glabrous, Beau-shaped, radially furrowed colonies after 4 days. On macroscopic examination with lactophenol cotton
blue preparation breed, aspergillus hyphae with narrow round thick-walled beaded zygosporangia were observed as characteristic of B.
tamari. Based on the culure results diagnosis of hand-foot mouth was made and the patient was started on oral nizoral.
There was a marked reduction in the size of swelling and healing of the ulcer following 10 weeks of oral itraconazole therapy.
This report highlights the need for awareness of this disease for the correct diagnosis of this debilitating condition which is treatable.

P181
The effect of COVID-19 and immunosuppressive drugs and diabetes on the spread of mucormycosis

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Mucormycosis is a serious but rare opportunistic fungal infection that spreads rapidly, so prompt diagnosis and treatment
are essential to prevent high mortality rates and complications. Mucormycosis is caused by the inhalation of fungal spores, especially in
patients with suppressed immune systems. Mucormycosis affects human populations after COVID-19. According
to searches, an outbreak mucormycosis to COVID-19 has been widely reported from countries, mild to severe. Of course,
it seems that the underlying disease and most importantly uncontrolled diabetes or immunosuppressive diseases have provided
the conditions for the development of black fungi. In addition, the cross-transmission of sterilized drugs to control
infection of the cranium seems to be another cause of the spread of the disease. Groups of patients were analyzed for
the link between the COVID-19 epidemic and the outbreaks of mucormycosis. Black fungi usually cause necrosis of the
head and neck, including the nose, paranasal sinuses, and facial bones, which can sometimes cause complications. Therefore,
the present study examines mucormycosis and its associated complications, its mechanisms in normal individuals with COVID-19, the
effective factors and challenges to overcome this black mold infection.

P182
Investigating the link between pleomorphic and virulence in Cryptococcus

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Objective: Fungal pathogens Cryptococcus neoformans and C. gattii are responsible for hundreds of thousands of annual
deaths in immunocompromised individuals. Considerable phenotypic variation is exhibited by strains in response to stress
encountered during host infection, including increased capsule and cell size, the release of shed capsules, and the production of
large (≥5 μm), small (<1 μm), and irregular cells. We aimed to investigate whether the production of these morphological
variations is associated with virulence tests in two sets of strains. The first is a collection of diverse clinical isolates obtained
from HIV/AIDS patients in Botswana with accompanying clinical data. The second is a collection of lines derived from the C.
neoformans type strain H99 with high genetic similarity but differing levels of virulence. Some lines in this set possess a mutation in SGR29, which encodes a component of the SAGA histone acetyltransferase complex that has previously been implicated in their hypervirulence.

Methods: Isolates were cultured under conditions that simulate stress encountered in vitro (DEEMM, 3% C2O3, 75°C)
as these are known to enhance capsule production and induce size cell changes. Cells were counted with a haem leuk, visualized by light microscopy, and phenotypes were scored. For clinical isolates, MLST analysis was performed to determine their virulence. For H99 strains, G48 metarhizium larval infection assays, growth curves, and antifungal susceptibility testing was performed using different concentrations of antifungal agents in the presence and absence of infected flies. Serial dilution and regular scanning electron microscopy were used to investigate the internal morphology of the giant, micro, and irregular cells to confirm that they possess attributes of functional cells.

Results: Substantial pleomorphism was seen across both collections. In the clinical strain set, phenotypic variables fall into
two groups associated with differing symptoms. The production of ‘large’ phenotypes was associated with a higher C40 count
and was negatively correlated with antifungal pressure indicators, suggesting that these are induced in early-stage infection.
Small ‘false’ phenotypes were associated with lower C40 counts, negatively correlated with antifungal indicators, and positively correlated with intracranial pressure indicators, suggesting that they are produced later during infection and may promote dissemination and dissemination. Isolates possessing giant cells, microcells, and shed capsules were rare, but strikingly,
they were associated with patient death.

In the H99 set, strains from hypervirulent lines had larger average capsule size, greater cell size in average, and increased
production of microcapsules and shed capsules. Deletion of SGR29 in an intermediate virulence background substantially
inhibits production of microcapsules and released capsules, consistent with a switch to hypervirulence. SGR29 loss-of-function
mutations were subsequently identified in clinical isolates and were found to be significantly correlated with patient death.
Expansion of a TA region in the second intron of SGR29 in clinical isolates was positively correlated with cell and capsule size,
suggesting it also affects SGR29 function.

Conclusion: Our results extend the evidence for a link between pleomorphism and virulence, with a likely role for epigenetic
mechanisms mediated by SAGA-induced histone acetylation.

P183
Cryptococcosis in a patient from Cordoba, Argentina

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A 65-year-old man was admitted to the hospital for alcoholic hepatitis, sepsis and cholestasis. He had chronic
alcoholic hepatitis, diabetes mellitus treated with insulin, and received pre-transplant prophylaxis with voriconazole
400 mg bid. On day 8 after transplantation, he presented pain and erythema on the fifth finger. Sacrifization of the
digital intertissue showed fine syncytonium blisters. Antifungal treatment with voriconazole 400 mg bid plus liposomal amphi-
toxic B 5 mg/kg was administered. The patient remained severely neutropenic and the digital lesion progressed to painful
for the following 12 days. BACTEC blood culture developed F. keratinophilum and MIC (mg/L) amphotericin B 1, voriconazole
4 (CSM 3rd Ed) using 24 day post-transplant, the patient presented an erythematous lesion on the right leg. A toilett of the digital
lesion and a skin biopsy of the lesion on the right leg was performed, both of which showed fine blisters / blisters. Antifungal treatment with voriconazole 400 mg bid and liposomal amphi-
toxic B 5 mg/kg was administered. The patient was discharged 67 days after transplantation.

P184
Disseminated fusariosis in an emothological malignancies with two new outcomes

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A 65-year-old man was admitted to the hospital for chemotherapy treatment for acute lymphoblastic leukaemia (ALL).
The patient received prophylaxis with fluconazole. On day 15 after chemotherapy, he developed Candida parapsili-
sos glabrata (C. parapsilosis) in the blood culture. MIC (mg/L) amphotericin B 1, voriconazole 4 (CSM 3rd Ed) using 24 day post-transplant, the patient presented an erythematous lesion on the right leg. A toilett of the digital lesion and a skin biopsy of the lesion on the right leg was performed, both of which showed fine blisters / blisters. Antifungal treatment with voriconazole 400 mg bid and liposomal amphio-
toxin B 5 mg/kg was administered. The patient was discharged 67 days after transplantation.