Post-Operative Endophthalmitis Caused By Cladosporium Species: A Case Report

A rare case of nasal septal perforation due to an emerging fungal pathogen

Bipolaris Keratomycosis-A case report

Biofilm production, phospholipase and hemolytic activity in the different species of candida isolated from genitourinary tract

Study of Onychomycosis: common fungi causing Onychomycosis

Identification, characterisation and antifungal susceptibility testing of different candida species isolated from patients attending Navodaya Medical College Hospital & Research Centre (NMCH & RC), Raichur.

Isolation and Identification of Dermatophytes from clinical samples – One year study

Case series of fugimia caused by Trichosporon beigelli in newborn

Parasites associated with HIV-a retrospective case report

Co-existing acute Japanese encephalitis virus infection with neurocysticercosis: an uncommon entity in present times
Post-Operative Endophthalmitis Caused By Cladosporium Species: A Case Report

Dr. Roopa C

Department of Microbiology, Mahadevappa Rampure Medical College, Gulbarga

Introduction and Background

The current incidence of post-operative endophthalmitis after cataract surgery is less than 0.1%. Fungal endophthalmitis is rare but recent studies show that fungus accounts for 7 to 13% cases of post operative endophthalmitis. We report a case of post-operative endophthalmitis due to Cladosporium species, one of the rare fungi isolated in such cases.

A 45 year old female patient presented to OPD of ophthalmology after 10 days of cataract surgery with painful tearing, redness and dimness of vision in the operated eye. History of exposure to dust and cow dung 2 days after surgery, was noted. A clinical diagnosis of post-operative endophthalmitis was made. Vitreous tap was done and sent to microbiology laboratory for KOH mount and culture to rule out fungal etiology.

Material and Methods

10% KOH preparation was made from sample and observed. Inoculation onto two slants of SDA, one plain and another incorporated with antibiotics and cycloheximide, was carried out.

Results

Pigmented fungal filaments were seen in 10% KOH preparation. Olive green to darkly brown powdery colonies was observed on SDA. LPCB preparation of growth showed pigmented septate hyphae with conidiophores along which, conidiospores were arranged in chains.

Conclusion

Isolated fungus was identified as Cladosporium spp. based on morphology of growth on SDA and microscopy. Early diagnosis and identification of fungal etiological agents are imperative for institution of appropriate therapy to salvage vision in cases of fungal endophthalmitis.
A RARE CASE OF NASAL SEPTAL PERFORATION DUE TO AN EMERGING FUNGAL PATHOGEN.

Aparna Shivaprasad, Shivapriya E, Rama NK, Ravi GC.

MVJ Medical College and Research Hospital, Hoskote, Bangalore.

Introduction: Perforations of nasal septum are fairly frequent with an incidence of about 0.9% and may lead to morbidity than mortality. Common causes are trauma, malignancy, inflammations and infections such as tuberculosis, syphilis, Wegener’s granulomatosis, sarcoidosis and fungal infections. Paranasal fungal sinusitis is frequently encountered in clinical practice and nasal septal perforations caused by species of Aspergillus and Fusarium have been documented.

Case report: We report a case of nasal septal perforation in 35 year old immunocompetent male patient due to Purpureocillium lilacinum, a soil and environmental fungus. Fungal aetiology was diagnosed by histopathology and direct smear examination and confirmed by culture. Patient was treated with Voriconazole following antifungal susceptibility testing.

Conclusion: P. lilacinum, an emerging fungal pathogen, can cause infection in paranasal sinuses in both immunocompromised and immunocompetent individuals, probably resulting in nasal septal perforation. Culture is confirmatory and repeated isolation confirms the pathogenicity. Since the fungus is drug resistant, treatment with traditional antifungal drugs fails but Voriconazole and Itraconazole are effective.
MP03 BIPOLARIS KERATOMYCOSIS -A CASE REPORT

Dr.T.Nagarathnamma, Dr. Malathi.N, Dr Archana

Department of Microbiology, Bangalore medical college and Research Institute, Victoria Hospital, Bangalore

Introduction:

Keratomycosis is defined as invasive infection of corneal stroma caused by variety of fungal species. This is frequently develops after corneal trauma by vegetative matter. Aspergillus genus is the commonest fungi followed by other genera. The phaeoid fungi are of low virulence & produce protracted infections.

Case report

A 45-year-old woman reported to the Regional institute of ophthalmology, Bangalore in the year 2012. The patient had a H/o pain, watering and redness in the left eye for 2 weeks. There was no history of trauma to the eye. Corneal scrapings were taken and examined under 10% KOH wet mount showed darkly pigmented, septate hyphae. Scrapings were plated onto two sets of SDA with antibiotics but without actidione and incubated at 25°C & 37°C. Within 48 hours of incubation, mycelia growth was observed on the SDA plate. Surface was at first grayish brown, becoming black with a matted center and raised grayish periphery after four days. Reverse was black.

Microscopic examination revealed numerous conidiophores, which were dark, branched, septate and geniculate. The macroconidia showed two to five septa, most often three. Depending on colony morphology, rate of growth, Microscopy, the fungus was identified as Bipolaris species.

Conclusion; Bipolaris infection which are not restricted to immune suppressed hosts, its diagnosis in immunocompetent patients can easily be overlooked by misinterpreting the fungus as a contamination in the culture.
Biofilm production, phospholipase and hemolytic activity in the different species of Candida isolated from genitourinary tract

Shani Jacob, Diney D’Souza, Udayalaxmi

Department of Microbiology, Kasturba Medical College, Mangalore

Background. Vulvovaginal candidiasis is the second most common cause of abnormal discharge after bacterial vaginosis in healthy women of reproductive age. Candiduria is usually diagnosed in elderly hospitalized patients, neonates and immuno compromised patients. Candida is frequently isolated in nosocomial urinary tract infections.\(^1\)\(^2\)

Aim. To determine the rate of isolation of different species of candida from genitourinary tract and to study the virulence factors like biofilm production, phospholipase and hemolytic activity in them.

Material and methods. It is an in vitro cross sectional study. Eighty two strains of Candida were collected from vaginal swabs and urine samples received in Microbiology laboratory from January 2012 to December 2012. The isolates were speciated and biofilm production, phospholipase and hemolytic activity were studied in them. Statistical analysis was performed using SPSS version 11.5.

Results. Out of the 3001 urine samples processed 41 (1.3%) were positive for candida, out of 293 high vaginal swabs 41 (14%) were positive for Candida. C. albicans was the most prevalent isolate followed by C. tropicalis, C. glabrata and C. krusei. Out of 40 C. albicans strains, 22 (55%) produced biofilm, 39 (97.5%) produced hemolysin and 21 (52.5%) produced phospholipase. Out of 42 strains of non albicans species of Candida, 19 (45%) produced biofilm, 41 (97.6%) hemolysin and 5 (12%) produced phospholipase.

Conclusions. Rate of isolation of Candida from genitourinary tract is consistent with previous studies. Phospholipase production was better in C. albicans in comparison with other species of Candida. Whereas there was no statistically relevant difference between hemolysin and biofilm production by C. albicans and non albicans strains of Candida.
MP05 Study of Onychomycosis: Common fungi causing Onychomycosis

Dr. T Nagarathnamma, Dr. Archana Bhat K., Dr. Malathi

Dept of microbiology, BMCRI Bangalore, Victoria hospital, Bangalore

Introduction: Onychomycosis is the infection of nail apparatus by dermatophytes and non-dermatophyte fungi, and represents about 30% of mycotic cutaneous infections. It is responsible for 50% of all nail disorders. Patient presents with onychodystrophy, discolouration of nail, onycholysis etc.

Objective: To identify the common fungi responsible for onychomycosis.

Materials and methods: A one year study was conducted at Bangalore Medical College and Research centre, to identify the common pathogens responsible for onychomycosis. A total of 75 nail samples were subjected to direct microscopy in 40% KOH and culture. Species identification was done by standard techniques.

Results: Females constituted 40% (n=30) while males 60 % (n=45). The most frequently affected were those in the age group 21-30 years. Males were predominantly affected (60.8%, n=14) compared to females (39.2%, n=9). Direct microscopy of nail clips in 40% KOH solution was positive in 13(17.33%) samples and culture was positive in 23 (30.66%) samples. The most common fungi isolated were non-dermatophytes (56.5%, n=13) followed by yeast-like fungi (39.2%, n=9) and dermatophytes (4.3%, n=1). Aspergillus spp. was the commonest (47.8%, n=11) non-dermatophyte, followed by Candida spp. (17.3%, n=4).

Conclusion: In this study, non-dermatophyte fungi are the commonest cause of onychomysosis. Treatment for non-dermatophyte fungi is challenging as the current available antifungal agents are more effective against dermatophytes and yeasts.
Identification, characterisation and antifungal susceptibility testing of different candida species isolated from various clinical samples from patients attending navodaya medical college hospital & research centre (nmch & rc), raichur.

Tapan Kumar Mandal, Anandkumar H, Achut Rao, and Amar Sajjan

Department of Microbiology, Navodaya Medical College, Raichur.

Introduction: Candidiasis is the commonest opportunistic human infection. The common predisposing factors are diabetes mellitus, pregnancy, prolonged use of broad spectrum antibiotics, steroids, debilitated patients, immunocompromised patients like HIV etc., secondary to chronic diseases and drug intake and other causes. Candida albicans was the predominant isolates, increased rate of non albicans Candida (NAC) species were observed. The vulvovaginal candidiasis appeared the most frequent clinical condition. There is emergence of azole-resistant strains mainly among NACs.

Material and methods: Out of 1950 samples collected from different sources according to the type of infections from different wards of NMCH & RC, Raichur from November 2011 – October 2012, only 96 samples were Candida positive. Swabs yielding growth of Candida species were subjected to speciation by standard mycological methods like direct examination of wet mount and Gram’s stain preparation, Germ tube test, CHROMagar and SDA culture, sugar assimilation, antifungal susceptibility testing by disc diffusion methods etc. as per CLSI guide lines.

Results and conclusion: Diabetes mellitus appeared to be the greatest predisposing factor (33%) followed by pregnancy (22.3%), HIV (5.8%), other causes (11.7%). The commonest clinical condition was found to be vulvovaginitis (41.7%), followed by respiratory candidiasis (17.7%), oral (11.5%), otomycosis (5.2%) and least common ocular and blood stream infection (1%). C. albicans was the commonest species isolated (63.6%), followed by C. tropicalis (22.9%) and C. crusei (9.4%).
**MP07 Isolation and Identification of Dermatophytes from clinical samples – One year study.**

Dr. Anupama A, Dr S G Karadesai, Dr. M B Nagamoti

Department of Microbiology, Jawaharlal Nehru Medical College, K.L.E. University, Belgaum

**Introduction:** Infection of the keratinized tissues (hair, skin & nail) in man and animals by keratinophilic fungi (dermatophytes) results in dermatophytosis. Rapid identification of dermatophyte species and knowledge of their host preference and ecology play an important role in epidemiology, public health issues and setting up prophylactic measures. Hence this study was carried out mainly for correct, rapid and efficient laboratory diagnosis of dermatophytosis.

**Materials and Methods:** All clinically diagnosed cases of dermatophytes attending Dermatology Out Patient Department of KLE’S Dr. Prabhakar Kore Hospital and Medical Research Centre Belgaum were included in this study. Samples were collected by scrapings and were subjected to direct microscopic examination and culture on SDA with cycloheximide and chloramphenicol. Then organisms were identified by characteristic growth pattern. Confirmation was done by gross morphology of the growth typical microscopic structure (LPCB), slide culture.

**Results:** Total of 83 samples were included in the study. Out of which 65 (75.9%) were from skin, 15 (18.0%) were from nail and 3 (3.6%) were hair samples. 48 (80.7%) samples were KOH positive and 35 (42.1%) were KOH negative. 67 (80.7%) samples were culture positive and 16 (19.2%) were culture negative. Isolates were T.rubrum (34.9%), T.mentagrophyte (18.0%), T.tonsurans (9.6%), M.gypseum (2.4%) and Others (A.niger, Acremonium sps, Curvularia sps) (13.2%).

**Conclusion:** In our most common dermatophyte isolated was T. rubrum (34.9%) second most common was T. mentagrophyte (18%). M. gypseum was isolated from only 2 samples. Our study will be carried forward by doing culture and sensitivity for the above isolates which will help us to determine optimal antifungal usage policy for treatment of Dermatophytosis.
MP08 Case series of fugimia caused by Trichosporon beigelli in newborn

Dr Santosh Machado, Dr Anup Kumar Shetty, Dr Prashanth, Dr Uttam U, Dr Roopa

Father Muller Medical College, Mangalore, Karnataka

**Objective:** To report 5 Cases of Trichsporon Beigelli in Newborn

**Introduction:** Trichsporon Species is a inhabitant of soil and occasionally a part of normal flora of the skin. Systemic infections are common in immunocompromised patients. The literature name of *Trichosporon beigelli* is used for the etiological agent of systemic Trichosporonosis.

**Summary of cases** A neonate with features of septicaemia blood culture was sent. Of the 5 babies one baby died of septicemia one baby died a sudden death and other 3 babies were treated successfully with amphotericin B.

On gram stain yeast like organism was found. On Culture there was growth overnight. Colonies were raised dry yellowish smooth non haemolytic odourless colonies, which on aging became wrinkled. They were urease positive. On Gram Stain there were hyaline septate hyphae that fragments into arthroconidia. On corn meal agar, there were pseudohyphae (chains of blastoconidia).

**Discussion** Fungimia with Trichsporon is Fatal with Mortality rates upto 64%. The patients generally have some immunocompromised state. Therapy with Amphotericin B is recommended but tends to fail; Azoles are a must in the therapy.
INTRODUCTION
Clinical manifestations in HIV infections are not primarily due to viral cytopathology, but are secondary to the failure of immune responses. This renders the patients susceptible to opportunistic infections and malignancies.

CASE REPORT
A 44 yrs old male patient was admitted in the department of medicine with history of chronic cough for 3 months duration, history of fever on and off for 3 months duration with history of loss of weight and appetite, and skin rashes for 1 month duration. On examination - middle aged man poorly nourished with pallor, dry scaly skin lesions. Vitals within normal limits. Systemic examination reviled bilateral scattered basal crepts on both sides. Per abdomen was soft with no organomegaly, cvs and cns was normal. This patient was investigated with routine investigations and a roentigenogram of chest.

Routine investigations – CBC, haemoglobin 6.8 g/dl, Total count 14,700, DC:P-63, L-33, E-4 Pl- 2,13,000; P.S-microcytic hypochromic anemia.chest X-ray- Showed bilateral lower lobe bronchiectetic changes; LFT & RFT- WNI

Microbiological investigations:
Sputum – AFB +ve
Stool examination
Direct examination – showed larva of strongyloides stercoralis, ova of Trichurs trichura and also cysts of E. Histolytica.
Modified ZN staining- cysts of Isospora belli were seen .
Fluorescent staining – showed Isospora bell.i
CD4 profile: CD4 - 47 cells/cmm , CD45 absolute - 666 cell/cmm, CD3-484 cell/cmm , CD4:CD8 – 0.11

DISCUSSION
There is high prevellance of multiple parasitic infections in HIV positive cases ,with or without history of diarrhoea. These patients invariably have anemia as a consequence of multiple factors including parasitic load in intestine.Lower the CD4 counts,multiple no of opportunistic infections ,as in our case associated tuberculosis which is a common co-morbid condition. They also have various dermatological manifestations .

CONCLUSION
Multiple parasites in the stool sample-think of an immunocompromised states .
Simple stool examination like wet mount is a rapid and cost effective method in detecting such cases. Lower the CD4 counts look for all opportunistic infections.
VP01 Co-existing acute Japanese encephalitis virus infection with neurocystecercosis: an uncommon entity in present times

Ashwin YB, Reeta Mani, Madhusudana SN

Dept. of Neurovirology, NIMHANS-Bangalore-560029.

**Objectives:**

Both JEV infection and NCC have common epidemiological and socio-demographic factors in causation. Endemic areas including those in Karnataka have seen a resurgence of JEV infections in last 6 months with traditional endemic areas having high burden of cases despite good public health measures in place. Co-infection with JEV and NCC is rare entity in recent times.

**Case Description**

6 year old boy from Bellary, previously diagnosed and treated for NCC, was brought to casualty with clinical features suggestive of acute encephalitis. Clinical and epidemiological evidence pointed to evidence of encephalitis due to Japanese encephalitis virus (JEV) in the setting of acute CNS signs in a patient with NCC. Radiological investigations showed increased hyper densities in basal ganglia with a ring lesion suggestive of neurocystecercosis (NCC). Laboratory investigations confirmed the presence of IgM antibodies against JEV. Patient remained on artificial life support system for four weeks before weaning off. Complete recovery with no neurological deficits was noticed after 6 weeks of stay in the hospital.

**Discussion**

Patients with NCC have a predisposition for superadded infections like JE. Alterations in immune response predisposes to such infections. Clinicians must be aware that JEV infections with associated NCC are associated with long-term morbidity and high mortality. Early admission / referral would help decrease mortality.