MMTN
MEDICAL MYCOLOGY TRAINING NETWORK

10 common mistakes in clinical mycology

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ASIA FUNGAL WORKING GROUP
an ISHAM working group

10 Common Mistakes in Clinical Mycology

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Disclaimer

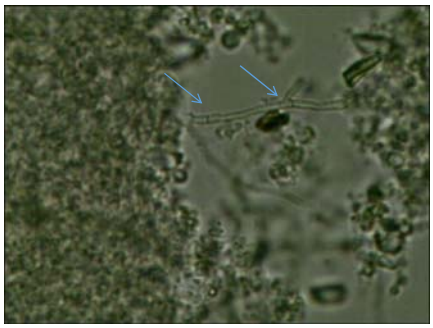
Based on few of the mistakes that I did in my initial practice and few I observed from other colleagues

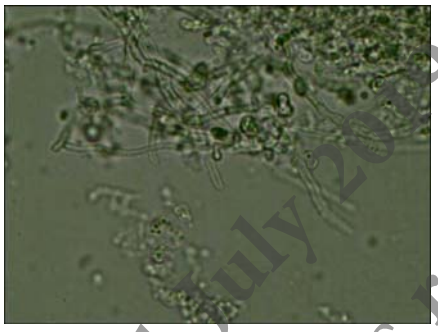
1: Clinicians forget to request direct microscopy (KOH, Calcoflaur white stain) from biological sample

- Common mistake
- Mainly due to lack of clinical suspicion
- Under estimate value of direct microscopy
- Direct microscopy has an immense value, rapid turn around time is 1 hour: tell you about which antifungal

Brain Biopsy

Direct microscopy of brain lesion show
CSF examination: WNL





IV Voriconazole started,
Blood culture grew Klebseilla Pneumoniae: Colistin + Meropenem

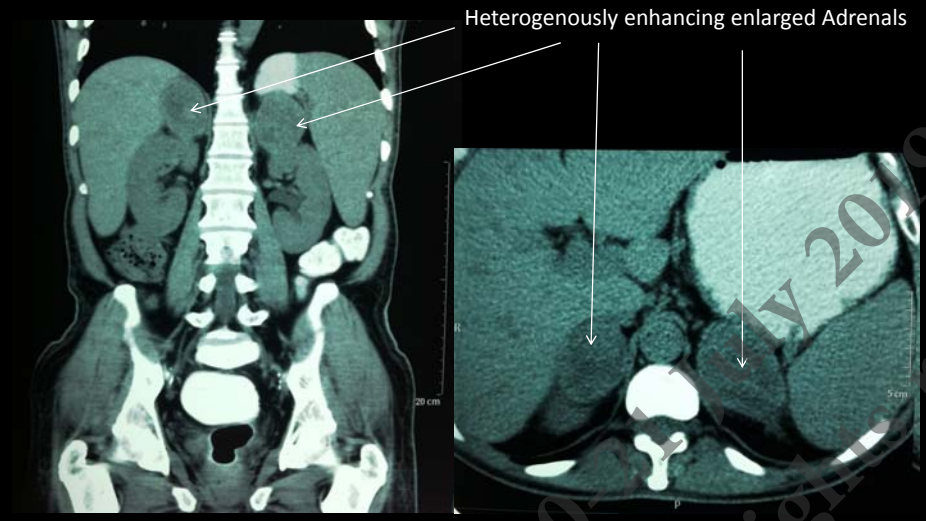
2: Fungal culture is not requested from biological sample

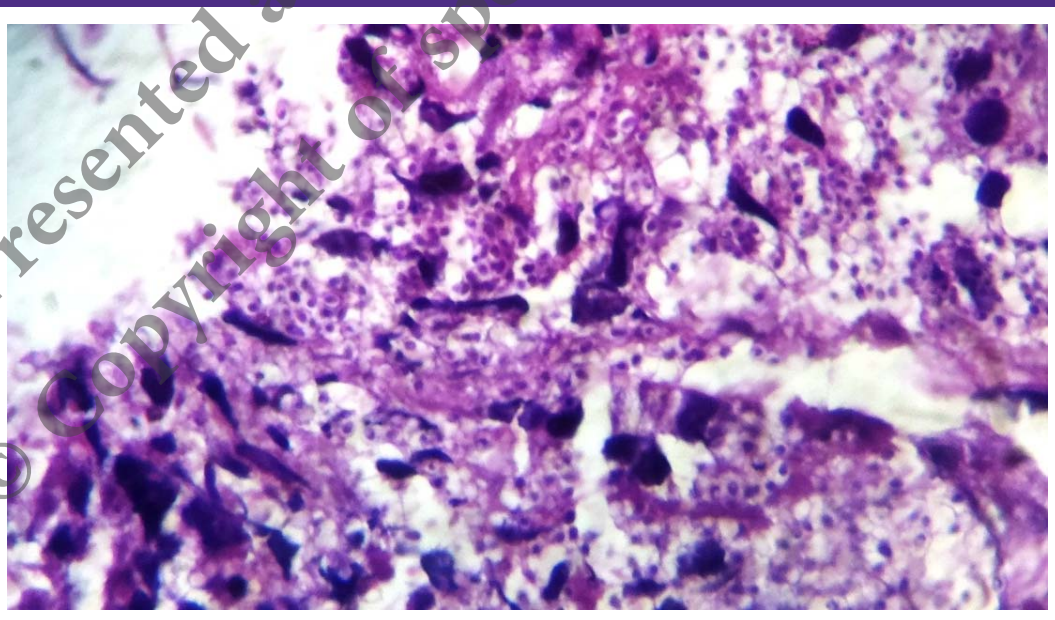
This is very common, especially in a patient with FUO, constitutional symptoms, weight loss with lymphadenopathy +/- Adrenal enlargement

TB is suspected and biopsy invariably sent for GenXpert MTB/RIF, TB Culture and histopathology

Histoplasmosis is missed unless histopathologist identify yeast in tissue on H&E stain

CT Scan: Abdomen





3: Not looked for drug-drug interactions

Drug-Drug interactions affects efficacy of antifungal agents or end up in a life threatening ADR

Common examples

- Patient receiving Rifampicin containing anti TB and diagnose with fungal infections: Started on Voriconazole/ Fluconazole/Caspofungin
- Patient is receiving Itraconazole and receiving acid reducing agents (Ranitidine, Pantoprazole etc)
- Patient is on Amiodarone, warfarin and started on Fluconazole/Voriconazole

4: Concomitant Nephrotoxic agents

Concomitant Aminoglycosides/ Polymyxin or other nephrotoxic agents are overlooked in a patients receiving Amphotericin antifungal treatment

5: Failed to adjust antifungal dosage according to renal replacement therapy

- This is important for patients receiving Fluconazole
- Common when patient is receiving intermittent hemodialysis

6: QTc monitoring is not done in ICU patients on Azole antifungals

- This is important for patients receiving Azole
- Concomitant hypomagnesemia, quinolones, clarithromycine and other drugs with potential effect on QTc prolongation
- End up with life threatening arrhythmias, sudden cardiac death

7:TDM is not performed

- This is important for patients receiving Voriconazole, Psaconazole, Itraconazole
- Clinicians believe that using recommended weight based dosage of antifungals and TDM may not be required
- End up with either treatment failure/drug toxicities

8: Clinicians using Syp. Posaconazole as a first line treatment for Mucormycosis

- Sy. Posa will take 7 days to achieve steady state level
- Mucormycosis is a life threatening angio-invasive infection, delay in effective therapy contribute to morbidity and mortality
- In Ampho intolerant patients, overlap Posa for 1 week, check the trough level
- IV/Tablet Posa could be an option for intolerant to Ampho

9: Voriconazole/Echinocandins for non albicans candida urinary infection

Isolation of Candida in urine is not uncommon

Antifungal penetration to urinary system

10: Antifungal treatment to patients BAL culture positive for candida

- Candida pneumonia is uncommon/rare
- Candida is generally a coloniser