



SOUTHERN AFRICAN HIV CLINICIANS SOCIETY

Continuing Medical Education (CME) Meeting

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A TB CASE PRESENTATION

TB-HIV Coinfection/Primary Health/Hospital Management/ | Public Health



Presentation outline

1. History
2. Examination
3. Differential diagnosis
4. Investigations
5. Management Plan
6. Follow-up Plan
7. Further developments
8. Case Highlights
9. Addressing Psychological, Economic Social Aspect of a TB Patient



History

A 53 years old male, working in the hospitality industry. Presented in a local Health Centre in April 2020 with fatigue, fever, cough, and generalized body pains. On further inquiry he has been in contact with tourists from Europe, he does not have shortness of breath, does not have blocked nose nor sore throat. He has no known chronic medical condition and has never been ill in the past 6-8 years.



Examination

Looks ill, and miserable. No jaundice, no dehydration. Has mild pallor and some bilateral cervical lymphadenopathy.

BP= 126/74, Pulse= 104 beats/minute, T=38.2 respiratory rate= 22 beats/minute, Sats =98% hgt=5.4 ward Hb= 7.5

CNS= No meningism

Chest= Bibasal crepitations

CVS= Normal heart sounds

Abdomen= Flat, soft and non-tender



Differential diagnosis

- COVID-19
- Bronchopneumonia
- RVD
- PTB
- Community Acquired Pneumonia



Investigations

- Nasopharyngeal swabs for SARS-COVID 2 test
- Chest X-ray
- GeneXpert (Sputum)
- Rapid HIV test

Chest Xray came back with features of patchy reticular opacities in the perihilar lung

Rapid HIV test: reactive



Management Plan

- Treat Atypical pneumonia as an outpatient
- Defer ART until TB is excluded
- High index of suspicion for COVID-19
- Baseline bloods: CD4 count, RPR, Creatinine, HepB Sag , Others (HB, PSA)
- Medication: Co-Amoxycylav 675 TDS,
 - : Azithromycin 500mg daily
 - :Panado 1g TDS



Follow-up Plan

- SARS-COVID results
- Sputum GXP results
- Baseline results
- ART Initiation
- Assess response to oral anti biotics and assessment of general clinical status

SARS COVID- Negative

GeneXpert- Mycobacterium not detected



Treatment Plan

- PTB & COVID-19 excluded
- Initiation of ART
 - Adherence Counselling
 - Baseline results: GFR >60, CD4 count= 25, HepB Sag= negative, Others (CLAT negative, Hb= 8.1, PSA= 0.7)
 - Regimen: Tenofovir 300mg/Lamivudine300mg/Dolutegravir50mg
 - Cotrimoxazole prophylaxis 800/160 (until CD4 count =200)
 - IPT: INH 300mg daily for 12 months (TST no longer required)
 - Others: Vit B6 (Pyridoxine) 25mg daily



Follow-up

- Seen at month 1 on HAART (TLD)
- Well tolerates treatment and has no complaints
- Issued with 2 months medication, TCB for Creatinine test at month 3 on ART.
- Due to high index of suspicion for TB, and Meningitis, patient educated about symptoms.
- Patient is now unemployed due to the effects of Covid-19 in his industry.
- Plans to apply for UIF.



Further developments

- About 45 days on ART, patient subsequently develops a severe headache, fever, chills, disorientation, sensitivity to light and neck stiffness
- Presents to the Health center and found to have meningism. He is then referred to hospital to exclude meningitis (TB Meningitis or Cryptococcal Meningitis)



Further developments

- Admitted and LP is done
- Started on Rocephin 1g IVI daily
- ART is continued
- LP results: Protein elevated , Glucose < half of serum glucose , Predominantly Lymphocytic, ADA > 10, GXP= Mycobacterium TB detected, Rifampicin sensitive, India Ink stain= no yeast observed, MCS= No bacteria detected
- CT Scan Brain done
- Started on TB treatment
- Started on prednisone 40mg daily
- Haloperidol 1.5mg daily & Lorazapem 1mg nocte
- Continued with ART
- Stop INH, continue with Vit B6
- Add Dolutegravir 50mg mane (doubling the dose of DTG)
- Discharged at day 12 on treatment
- Review at MOPD in 2 weeks



Further developments

- Down refer to the Health Centre for TB Tx
- Local Health Centre: Slowly regaining weight, headaches have cleared, fatigue is mild , but has worsening neuropathy (VIT B6 increased to 100mg daily)
- UIF Application is unsuccessful
- Application for a Disability Grant is initiated



Case Highlights

- TB, HIV & COVID 19 overlapping presentation
- PCP could be another differential diagnosis
- IPT was given prematurely given without looking for and excluding TB (LAM, TB Culture, repeat CXR etc.)
- HIV drives TB incidence and South Africa has a high burden of HIV associated TB. In SA about 60% of people with TB also have HIV infection, and this results in high rates of morbidity and mortality.
- When people with TB who are HIV infected get Anti-Retroviral Therapy there are implications for their mortality. Observation studies have shown improved outcomes and reduced mortality when ART is started during TB treatment.
- All HIV infected people should start ART irrespective of their CD4 count or clinical stage. This means a lot of TB patients will be on ART too:
 - This makes it very important to understand co-prescription of TB treatment and ART
 - Makes it important to understand the consequences of drug-drug interactions (these interactions can result in reduced treatment efficacy or increased risk of toxicities)
 - Clinicians need to be able to identify shared toxicities between TB Treatment and ART



Psycho-Socioeconomic support of TB Patients

- Covid-19 highlighted fault lines in our society
- Psycho-Socio Economic support means you interact with a patient in a relationship that will improve coping, esteem, belonging for the patient. It includes financial support, informational support, emotional support and appraisal support.
- TB patients have poor HRQoL (Health Related Quality of Life)
- SASSA (Disability Grant)
- Department of Social Development (Food Parcels)



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THE END,

THANK YOU FOR LISTENING!!!