



## UNCOMMON PRESENTATION OF A COMMON DISEASE-HEPATIC TUBERCULOSIS

### General Medicine

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### KEYWORDS

#### UNCOMMON PRESENTATION OF A COMMON DISEASE

- A 32yr old male presented to the casualty on 24/10/23 at around 5pm with complaints of
- Fever since 2months
- Decreased appetite since 2months

#### History Of Presenting Illness

- The patient was apparently normal 2 months back when he c/o fever, on and off, high grade, associated with chills, no rigor.
- C/o decreased appetite since 2months, associated with weight loss (around 7kg in two months)
- No h/o cough with expectoration
- No h/o breathlessness.
- No h/o multiple joint pains
- No h/o high risk behaviour
- No h/o rashes.
- No h/o burning micturition.
- No h/o headache/vomiting.
- No h/o evening rise of temperature.
- Past History-N/k/c/o Hypertension/Diabetes mellitus/ Tuberculosis/ Bronchial Asthma.
- Family history-Nothing contributory
- Personal History

Mixed diet Decreased appetite

Regular and normal bowel and bladder movements No addictive habits

#### Provisional Diagnosis

- Pyrexia Of Unknown Origin
- General Physical Examination

No **Pallor**, Icterus, Clubbing, Cyanosis, **Lymphadenopathy**, Edema. No **skin rashes**.

#### Vitals-

PR-102bpm

BP-104/70mmHg

SpO<sub>2</sub>-98% on Room Air Temperature-101F

#### Systemic Examination

- CVS- S1, S2 heard.

No murmurs

- CNS-Conscious, oriented.

No focal neurological deficits.

No meningeal signs.

- RS-B/L Normal vesicular breath sounds heard.

No added sounds.

- PA-Soft, Non tender.

No Organomegaly, Bowel sounds heard.

#### Investigations

- GRBS-131mg/dl
- WBC-7500
- Neutrophils/Lymphocytes-82/23
- Hb-13.2
- Platelet count-231k

- Urine routine-2-4 pus cells
- CRP-**176.8**
- ESR- **30**
- Serology(HIV, HBsAg, HCV)-Negative
- S.Creat-0.9
- TB-1.8
- DB-0.8
- IB-1.0
- AST-35
- ALT-33
- ALP-99
- Albumin-3.8
- Serum electrolytes-WNL
- Dengue serology-Negative
- PS For MP-Negative
- Widal test-Negative
- Mantoux test-Negative
- AFB-Negative
- 2D Echo-Normal study.
- Blood culture and Urine Cultures yielded no growth.
- ANA Profile-Negative

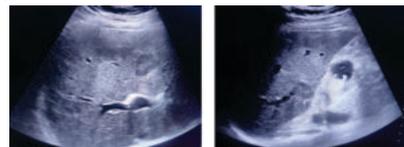
#### Chest X-ray



USG Abdomen & Pelvis was done as part of evaluation, which showed

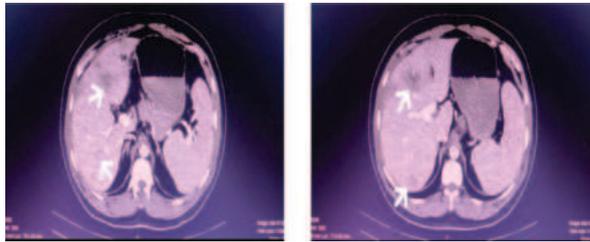
- Few focal hypoechoic lesions with irregular margins seen in segment II, IV, V and VII, largest of them measuring 2.6x2.4cm in segment II of the liver.
- Most of the lesions were seen in the subcapsular location with subtle posterior acoustic enhancement-Advised LFT correlation and CECT Abdomen and Pelvis for further assessment if indicated.
- Mild splenomegaly.

#### USG Abdomen And Pelvis



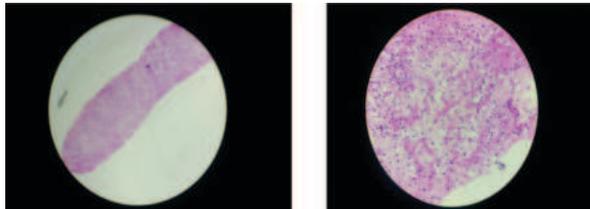
### Differential Diagnosis

- At this stage, we made a differential diagnosis of
  - Metastatic lesion in the liver? Primary
  - Multiple liver abscess.
- CECT Abdomen and Pelvis was done on 27/10/2023 showing **Multiple solid lesions in the liver, metastasis to be considered. Splenomegaly, dilated portal venous system.**



CECT Abdomen And Pelvis

- CT guided liver biopsy was done on 30/10/2023 for confirmation of the type of liver lesion, which revealed distorted architecture with hepatocytes arranged in sheets and an occasional central vein. Also noted are **benign** looking spindle cells and **chronic inflammatory infiltrate. No evidence of atypia/granuloma noted in the sections studied.**



### Liver Biopsy

- Patient needed further evaluation. PET scan was done on 04/11/2023 to identify the type of lesion and primary i/v/o strong suspicion of metastasis.

### PET CT Revealed-

- Multiple metabolically active hypodense lesions with peripheral enhancement noted in both the lobes of liver-suspicious for primary malignancy.
- Mild splenomegaly noted.
- Metabolically active abdominal and retroperitoneal lymph nodes noted, likely Nodal metastasis.
- Metabolically active few mediastinal lymph nodes noted appears indeterminate.
- No other metabolically active lesion noted elsewhere.
- Following PET-CT, liver biopsy was repeated for confirmation of malignancy (since the previous biopsy excluded malignancy) on 06/11/2023, which showed Features of **caseating granulomatous lesion.**
- No evidence of malignancy.
- Gene Xpert was done for confirmation of Tuberculosis as shown in the liver biopsy report.
- Gene Xpert showed detection of Mycobacterium tuberculosis complex, and the patient was started on AntiTubercular therapy.

### Final Diagnosis

#### Hepatic Tuberculosis

- Primary hepatic miliary tuberculosis
- Multiple tuberculomas of the liver.

#### Hepatic Tuberculosis

- Tuberculosis remains the most common cause of patients presenting as Pyrexia of unknown origin.
- Hepatic Tuberculosis is a rare entity in an immunocompetent patient<sup>[1]</sup>.
- It has a frequency of about 0.5-1.2%<sup>[1]</sup>.
- The average age of patients with hepatic tuberculosis is 30yrs (ranging from 17-50y)<sup>[1]</sup>.
- HTB is classified in three types which include the miliary tuberculosis derived from generalised infection, Primary hepatic miliary tuberculosis, and the rarest nodular lesion Tuberculoma<sup>[2]</sup>.
- The basic lesion is the Granuloma, which is very frequent in the liver in both Pulmonary and Extrapulmonary Tuberculosis<sup>[2]</sup>.

- The clinical approach to Hepatic tuberculosis needs a strong clinical suspicion as it is considered a clinically silent disease with no specific symptoms, signs, laboratory nor imaging findings<sup>[3]</sup>.
- Liver biopsy is indicated in patients with unexplained fever and weight loss with hepatomegaly or hepatosplenomegaly<sup>[2]</sup>.
- It's hallmark is a central caseating necrotic granuloma with or without acid-fast bacilli<sup>[3]</sup>.
- Thus, it is of paramount importance to suspect its presence in cases with diagnostic dilemmas and conduct liver biopsy where possible<sup>[3]</sup>.
- HTB can be managed effectively if diagnosed in time<sup>[3]</sup>.

### REFERENCES

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- Garmpis N, Damaskos C, Garmpi A, Liakea A, Mantas D. The Unexpected Diagnosis of Hepatic Tuberculosis in an Immunocompetent Patient. Case Reports in Surgery. 2020 Oct 6;2020:1-4.