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Hepatic Tuberculosis Presented as Isolated Gaseous Liver Abcess - A Case Report

Medical Science

KEYWORDS : TB tuberculosis , gaseous, liver abcess, ATT anti tubercular drugs, AFB Acid fast bacilli .

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ABSTRACT

HEPATIC TUBERCULOSIS is a rare disease, an isolated or primary Tubercular gaseous Liver Abcess with no evidence of tuberculosis elsewhere is even rare. We report a case of 70 yrs old male with isolated hepatic abscess.

SUMMARY : Here we present a case of 70 yr old male patient who presented with right hypochondrial pain and epigastric pain, and vomitings, intermittent fever associated with chills and rigor since 1 months, After intial investigation , diagnosed as having ?pyogenic liver abcess ,fluid was aspirated and sent for investigations .Initially started on empirical antibiotics ,patient was not improved even after the treatment . After attaining the microbiology reports was diagnosed to have tubercular gaseous liver abscess , was started on ATT .patient improved symptomatically ,was discharged on ATT and is on follow up.

INTRODUCTION: Tuberculous liver abscess is very rarely seen with a prevalence of only 0.34% in patients with hepatic tuberculosis [1] . Isolated gaseous tubercular abscess of liver is a very rare form of extrapulmonary tuberculosis. Lymphadenitis is the most commonly occurring form of extrapulmonary tuberculosis. Cervical adenopathy is most common[7,14]. The tuberculous etiology should be considered if the patient is not responding to the treatment for pyogenic and amoebic abscess. Diagnostic delay may occasionally lead to catastrophic complications like perforation into pleural cavity , retroperitoneum or peritoneum. We present a rare case of isolated tuberculous liver abscesses , with out any evidence of tuberculosis elsewhere .

CASE REPORT : We report a case of 70 yrs old male who presented to casuality with complaining of right hypochondrial pain and epigastric pain, which was non radiating associated with vomiting, intermittent fever associated with chills and rigor.History of anorexia present since 1 month. No h/o any significant weight loss. There was no previous h/o TB or contact with any patient with TB. Patient was non HTN ,DENOVO DIABETIC. At time of admission, physical examination shows, patient was conscious with temperature of 99.4 ^{0} F with no signs of dehydration and was moderately built and moderately nourished. Pulse rate :88/min, BP:110/80mm hg with RR:19/min, there was no jaundice and lymphadenopathy.

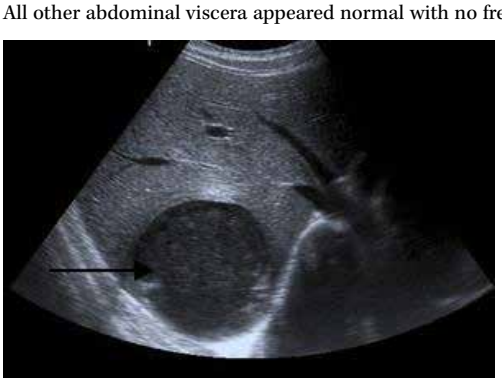
SYSTEMIC EXAMINATION: On abdominal examination, painful hepatomegaly with liver span of 16.2cm with no splenomegaly / ascites/ other palpable masses. RS,CVS,CNS- are clinically normal.

Investigations :- Hematocrit 26%; Hemoglobin 10.2 g/dL; white blood cells 14250/mm^3 (52% neutrophils, 42%lymphocytes); Blood urea was 33mg/dl, serum creatinine was 1.4 mg/dl. Platelet count was 2.1 lakhs/ mm^3 .ESR- 64 mm at the end of first hour . Total bilirubin was 0.6 mg/dl. AST and ALT were 73 IU/L and 61 IU/L respectively. Alkaline phosphatase (ALP) 179 IU/L (normal range is 44 to 147 IU/L) PT .14.0sec ,aPTT 34 sec ,INR .1.0.The patient was non-reactive in HIV ,HCV and Hepatitis B.

Chest X-ray showed elevated right dome of diaphragm .Suspicious air fluid level noted in right hypopchondrium in the region of liver **?liver abcess** ,With costophrenic angles normal .Bony thoracic cage normal . (Figure1) Radiograph of erect abdomen :-enlarged liver with liver abcess. (Figure2) .

Chest X-ray shows elevated right dome of diaphragm .Suspicious air fluid level noted in right hypopchondrium in the region of liver (Figure1). Radiograph of erect abdomen :- enlarged liver with liver abcess. (Figure2)

USG abdomen revealed a well-defined heterogeneous hypo echoic lesion of size 5.4 X 7.6 X 9.3 cms Right lobe of the liver suggestive of an abscess Liver was enlarged with a span of 16.2 cm with no other focal lesion. No perihepatic effusion was seen. All other abdominal viscera appeared normal with no free fluid

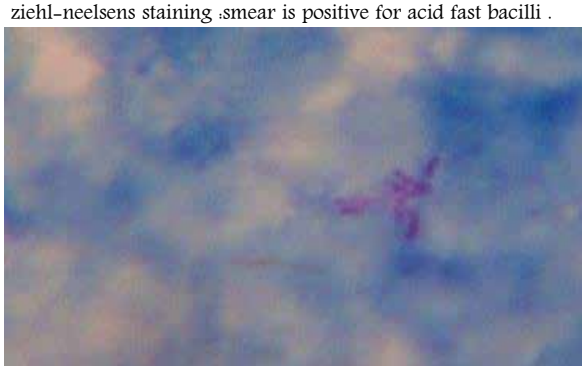


USG abdomen revealed a well-defined heterogeneous hypo

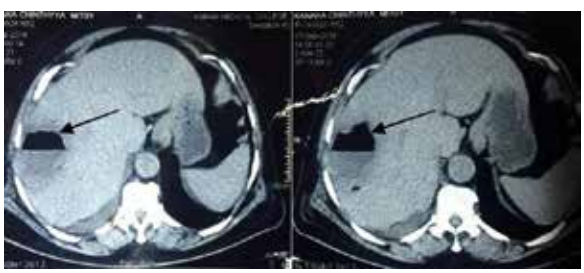
echoic lesion of size 5.4 X 7.6 X 9.3 cms .Right lobe of the liver suggestive of an abscess.

A US guided aspiration of 250 cc of yellow colored pus was carried out. The aspiration material showed 10 200 leukocytes/L with 9200 neutrophils/L. Gram staining of the aspiration fluid and Ziehl-Neelsen staining for acid-fast bacteria were positive. Routine bacteriological cultures of the aspiration fluid were negative for bacterial infection and fungus.

ziehl–neelsens staining ,smear is positive for acid fast bacilli .



A computerised tomographic (CT) scan of abdomen revealed abcess in right lobe of liver. Measuring of about 9.2 X 6.6 X 9.7 cms.



The patient was started on third generation cephalosporin and aminoglycoside with the provisional diagnosis of pyemic liver abscess. Despite this treatment, the patient's symptoms worsened. And patient was started with anti tubercular drugs ,patient improved clinically.

DISCUSSION : -Extrapulmonary involvement of liver is uncommon [3]. Hepatic involvement was found clinically in 50-80% of all patients dying of pulmonary TB and in up to 91% at autopsy. [7,8]. Occurs in micro (0.5 to 2 mm) and macronodular forms (>2mm). Macronodular form can probably spreads to the liver from the para aortic or portal nodes via the portal vein or hepatic artery[2]. The clinical diagnosis of this entity is rarely made as it has nonspecific clinical and imaging features and it is also rare. The diagnosis of hepatic TB was made according to criteria established by Maharaj et al.[4]:

(1) AFB in liver tissue; 2.tubercle bacilli elsewhere, plus hepatic granuloma with or without Langhans-type giant cells, and/or caseation; 3.typical macroscopic appearance on laparotomy or peritoneoscopy; and (4) response to antituberculous therapy. High level of glucose in tissue and compromised immunity in diabetic patients favor of vigorous metabolism and growth [11,12]. Local tissue damage would retard the transport of catabolic end products away from the lesion thereby result in gas accumulation. Severe liver dysfunction and jaundice are uncommon, but elevated alkaline phosphatase level, however, is the most commonly noted abnormality.[5,9]. Tuberculous abscesses have been mistaken for primary or metastatic carcinoma of the liver, pyogenic or amebic liver abscesses, and empyema of the gallbladder[1,9] . Ultrasound-guided percutaneous liver biopsy, CT, or laparoscopy are adequate methods for diagnosis, laparoscopy is the next investigative method of choice. Two typical patterns on ultrasound: (1) hypoechoic lesions without a distinct wall formed by coalescence of small tubercles and (2) hypoechoic lesions with hyperechoic rims, related to tuberculous bscesses[12] .Histologically, the finding of caseating granuloma in the liver biopsy specimen is considered to be diagnostic of TB. Noncaseating granulomas are also common in TB [6] .To confirm the diagnosis for a noncaseating granuloma, a positive AFB and/or culture for *M. tuberculosis* or response to anti-TB therapy is needed[4] . Diagnostic delay may occasionally lead to catastrophic complications like rupture into pleural cavity , retroperitoneum or peritoneum. Tuberculous abscesses have been mistaken for primary or metastatic carcinoma of the liver, pyogenic or amebic liver abscesses, and empyema of the gallbladder.[1,9]. and it should be included in differential diagnosis of abcess of liver and unknown hepatic mass lesion . A 6 t0 9-month regimen (two months of isoniazid [INH], rifampin [Rifadin], pyrazinamide, and ethambutol [Myambutol], followed by four to seven months of isoniazid and rifampin) is recommended as initial therapy ,unless the organisms are known or strongly suspected to be resistant to the first-line drugs[10].

Conclusion :- Tuberculous abscesses have been mistaken for primary or metastatic carcinoma of the liver, pyogenic or amebic liver abscesses, and empyema of the gallbladder.[2,13] .High index of suspicious is required for correct diagnosis and it should be included in differential diagnosis of abcess of liver and unknown hepatic mass lesion.

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