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RESEARCH ARTICLE

PERITONEAL TUBERCULOSIS MIMIKING GASTROINTESTINAL STROMAL TUMOR

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Abstract

Abdominal TB is a common site of extrapulmonary tubercilosis, and peritoneal tuberculosis (PTB) is one of the most common manifestations of abdominal tuberculosis. The diagnosis of PTB can be made based on a combination of clinical, radiological, histological, and laboratory tests. The diagnosis can be easy in the presence of ascites with peritoneal granulations. some forms of PTB can make a differential diagnosis with peritoneal or digestive tract pathologies. some forms of PTB can make a differential diagnosis with peritoneal or digestive tract pathologies. We report a case of primary mesenteric tuberculosis mimicking gastrointestinal stromal tumor. The final diagnostic was performed using a combination of invasive and imaging techniques.

Introduction:-

Abdominal tuberculosis (TB) is a common site of extrapulmonary TB, and peritoneal tuberculosis (PTB) is one of the most common manifestations of abdominal tuberculosis. Risk factors for development abdominal TB include cirrhosis, HIV infection, diabetes mellitus, cancer, treatment with anti-tumor necrosis factor agents. Nevertheless, it can also present in individuals without any predisposing factor.The diagnosis of PTB can be made based on a combination of clinical, radiological, histological, and laboratory tests. Pulmonary TB usually explains a secondary peritoneal process, but primary peritoneal involvement is often very difficult to diagnose. Symptoms of PTB are insidious and unspecific represented by ascites, fever, night sweats, anorexia, weight loss or abdominal pain.

Among the many diseases that need to be differentiated from PTB, peritoneal carcinomatosis (PC) is one of the most important, due to its morbidity and similar imaging findings. We report a case of primary mesenteric tuberculosis mimicking gastrointestinal stromal tumor. The final diagnostic was performed using a combination of invasive and imaging techniques.

Case Presentation:

A 46-year-old male being followed for viral hepatitis C disease was admitted in our surgery departmentwith 2 months history of continuousabdominal pain located in peri-ombilical areaand significant weight loss (10 Kg)without other accompaning symptoms like digestive bleeding, transit disorder or fever. The patient had not any contact with tuberculosis cases.

The abdominal examination on subsequent presentation showed non-tender mass.

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Ultrasound and CT-scan examinations of the abdomen showed a soft mass measuring 10 x 6x 8 cm (figure 1). The mass had necrotic areas. The possible origin was from the jejunal wall. The gastro-intestinal stromal tumor (GIST) was suspected. The patient underwent a laparoscopic exploration. We showed a mesenteric tumor in contact of jejunum (figure 2). We performed segmental resection of jejunum including the tumor (figure 3). The patient discharged home after one week without post-operative complications. histologicalexamination of the specimen demonstrated a chronic granulomatous inflammation with necrosis and giant multinucleated cells. These findings confirm the diagnosis of a tuberculosis (TB) mesenteric adenopathy. Therefore, anti-TB therapy was initiated. The follow-up of our patient was good at 2 months after the surgical care.

Discussion:-

Abdominal TB is a common site of extrapulmonary tubercilosis, and peritoneal tuberculosis (PTB) is one of the most common manifestations of abdominal tuberculosis[1]. The diagnosis of PTB can be made based on a combination of clinical, radiological, histological, and laboratory tests[2]. Moreover, clinical presentation of PTB is non-specific making the preliminary workup very challenging[3;4]. Ascites has been reported to be the most frequent presenting sign in PTB (in 95.2% of the affected patients)[5] followed by fever and night sweats (53.8%), anorexia (46.9%), weight loss (44.1%),abdominal pain (35.9%) vomiting and diarrhea[7; 8].In our case, the patient presented with abdominal pain with weight loss. Laboratory tests, such as fast bacilli smear in ascitic fluid or ascitic fluid culture have poor sensitivity, and conventional polymerase chain reaction (PCR) lacks diagnostic power[9].Ascitic adenosine deaminase (ADA) and serum-ascites albumin gradient (SAAG) are considered helpful, but SAAG is not a characteristic biomarker and ADA can have false-negative or false-positive results in various clinical situations, such as patients with liver cirrhosis, HIV infection, or bacterial peritonitis[10].In our patient, none of these tests was performed.Among the many diseases that need to be differentiated from PTB, peritoneal carcinomatosis (PC) is one of the most important, due to its morbidity and similar imaging findings[11].The differential diagnosis can also be made with an ovarian tumor or a gastrointestinal stromal tumor (GIST) as in our case.Peritoneal biopsy taken either by laparoscopy or laparotomy, represent the gold standard for the correct diagnosis of PTB. Biopsies are invasive and expensive, and sampling errors and complications may further limit their use[12]. Experimental treatments can cause clinical delays. Therefore, finding some accurate and non-invasive signs of PTB would be helpful[13]. The widely used computed tomography (CT) allows non-invasive investigation of TB, PC, GIST and ovarian tumor[14]. A few previous studies have tried to differentiate PTB from another peritoneal diseases on CT,but the results are inconsistent among studies. To the authors' knowledge, no systematic reviews and meta-analyses have been published on this subject[15].In conclusion, our case emphasizes the diagnostic challenge of PTB as it is a forgotten localization. A high index of suspicion is required in patients with signs of tuberculosis impregnation and residing in endemic areas.Family and past history, physical examination, routine chest x-ray, ultrasound, and CT scans may not be specific enough in many patients[16]. With few exceptions, the exact diagnosis of PTB is first made by the pathologist when examining microscopic sections of biopsies[17]. In our patient, the diagnosis of PTB was made on histological examination of the operative specimen.

Conclusion:-

Peritoneal tuberculosis (PTB) is one of the most common manifestations of abdominal tuberculosis.The diagnosis can be easy in the presence of ascites with peritoneal granulations. On the other hand, in localized pseudo-tumoral peritoneal forms, the differential diagnosis can be difficult and is only confirmed by histological study of the operative specimen.

Competing interests

The authors declare no competing interests

Authors contributions

All the authors have read and agreed to the final manuscript

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