CASE REPORT

SPLEENIC ABSCESS AS A COMPLICATION OF EXTRAPULMONAY TUBERCULOSIS

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Tuberculosis continues to be a fatal infectious disease in developing countries. Despite the advances in medical sciences and introduction of potent therapeutic regimes tuberculosis has still managed to survive and prevail worldwide. It can affect many organs of body. Isolated splenic tuberculosis is uncommon in immunocompetent host and only some cases are reported internationally. Extrapulmonary tuberculosis with splenic involvement is also rare and only comes after lungs and liver. We present a case of patient presented with complaints of prolonged fever, cough and insidious onset of abdominal pain and sepsis. Exploratory laparotomy revealed spleenic abscess as incidental finding associated with tuberculous perforation of colon. She underwent double barrel colostomy and spleenectomy followed by intensive care unit admission. Measures such as awareness about the disease, early medical assistance and good compliance regarding treatment can produce positive results in combating tuberculosis and its complications.

Keywords: Extrapulmonary tuberculosis; Exploratory laprotomy; Spleenectomy

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INTRODUCTION

Tuberculosis is one of the most prevalent infectious disease worldwide and especially in developing countries. Despite of advances in diagnosis and treatment modalities this disease still is difficult to manage. Prolong fever; chronic cough and weight loss are prodrome of pulmonary tuberculosis. It has diverse clinical manifestations. It can present as pulmonary and extrapulmonary tuberculosis. Among all the cases extrapulmonary tuberculosis is 15% of the total cases.[1] Abdominal pain followed by fever is the most common presenting complaints of ATB.

The commonly involved sites in extrapulmonary tuberculosis are peritoneum, bowel, lymph nodes, liver, spleen and kidney, pancreatic and adrenal involvement is among the least common sites. Spleenic involvement accounts for 16.2% and presents as micoabcesses.[2] Isolated spleenic involvement is very rare. It only occurs in immunocompromised patients. According to the latest statistics of world health organization (WHO) Pakistan is ranked 5th among high burden countries worldwide. Among the prevalence of multidrug resistant cases of tuberculosis Pakistan is ranked 4th worldwide.[3] Objective is to report a case of spleenic abscess associated with intestinal and pulmonary tuberculosis.

CASE REPORT

An 85-year-old female resident of rural area of Khanewal, Punjab presented in emergency department of Nishtar Hospital Multan with the complaints of low-grade fever and off and on cough for more than 2 months, generalized pain abdomen for 15 days and altered level of consciousness for 2 days. History of weight loss was also given by the attendants. There was no previous history of diabetes, hypertension, and ischemic heart disease.

Her clinical examination showed him to be an old female of average built and height with tachycardia, heart rate reaching upto 108/min, blood pressure 100/60 mmHg, and respiratory rate was 28/min. The abdomen was distended, tense, and tender, hernia orifices were intact and no lymph nodes were palpable on palpation. Bowel sounds were absent. Per rectal examination revealed soft stool. Her GCS was 10/15, pupils bilaterally equal and reactive to light and there was no focal deficit. Respiratory system examination revealed decrease breath sounds at the lung base on both sides. Cardiovascular examination was unremarkable.

Her Hb was 10.7 g/dl, TLC count was 22000 mm^3, ESR 121mm/hr. Renal and liver function tests were normal. Abdominal erect X-ray showed air under diaphragm. Chest X-ray revealed multiple small opacities bilaterally. Ultrasound abdomen revealed aperistaltic gut loops with interloop and free fluid in peritoneal cavity.

Exploratory laparotomy was done which revealed a perforation of 3×3 cm at the site of splenic flexure and descending colon, oedematous colon, dense adhesions of small bowel, 500 ml fecopurulent fluid in peritoneal cavity, ruptured splenic abscess with calcification of spleen.

Double barrel colostomy was made and spleenectomy was done after washing the peritoneal cavity with normal saline. Spleen was sent for histopathology which revealed granulomatous inflammation. Patient remained in intensive care unit due to unstable vital signs and discharged after 15 days.

Figure-1: Spleen with calcified foci and abscess

DISCUSSION

Tuberculosis has been a major problem of Pakistan for a very long time. According to the statistics of WHO in the year 2013, the mortality rate because of tuberculosis was 27.0 per 100 000 population and there has been a rising trend in mortality rate for the past many years. The latest data published by WHO showed that in the year 2013, 298446 cases were reported. Also, Pakistan is ranked 4th among the drug resistant countries worldwide.[3]

Spleenic abscess is an extremely rare condition. According to the autopsy studies made in European countries the incidence of this condition Is found to be only 0.14–0.7%.[4] There is variety of causes of spleenic abscess. There must be an infective primary focus which acts as the source of hematogenous spread. Infective endocarditis accounts for an important cause and accounts for 10–20% of cases.[5] Some other important causes are enteric fever, urinary tract infections, osteomyelitis, tuberculosis, brucellosis and pneumonia and pelvic infections.[6] Immuno-suppression is one of the important causes of spleenic abscess. HIV co infection increases the risk of developing spleenic tuberculosis. According to a study conducted in India 50% of the cases of spleenic tuberculosis were having HIV co infection and 62% were associated with only pulmonary tuberculosis.[7]

History and clinical features are usually not sufficient to reach the diagnosis. Imaging studies are necessary to diagnose spleenic abscess. Ultrasonography and CT scan are important modalities. They can also provide details regarding percutaneous drainage. According to a case report published in Oman a patient was diagnosed with spleenic abscess on imaging studies and was successfully treated by percutaneous drainage. All other systems were unremarkable in that patient.[8] In our patient there were findings in chest X-ray that were consistent with pulmonary tuberculosis as primary infective focus.

There are two treatment modalities in cases of spleenic abscess. It is either by spleenectomy or by a more conservative percutaneous drainage. These treatment approaches are followed by administration of anti-tuberculous drugs for a long period of time. If preoperative diagnosis is confirmed than percutaneous drainage is a preferred approach with 67–100% success rates.[9]

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