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SPLEENIC ACTINOMYCOSIS- A RARE CASE REPORT

General Surgery

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ABSTRACT

Actinomycosis is a rare cause of intra-abdominal infection.1 The usual sites of actinomycosis are cervicofacial, respiratory and digestive tract.3 Splenic abscess is a rare clinical entity with a reported frequency of 0.05-0.7%. 2 In this rare case report, we present a 36 years old gentleman who presented to the emergency department with complain of pain on the left side of the abdomen for last 10 days, fever and vomiting. Gentleman also had hypertension, Chronic Liver Disease, oesophageal varices, infective endocarditis and uncontrolled diabetes. On Examination, his left hypochondrium was tender. Investigations such as CECT whole abdomen revealed multiple splenic infarcts. Chronic Liver disease. MRI revealed gallstones and splenomegaly with multiple infarcts. Splenectomy with cholecystectomy was performed. Patient recovered well postoperatively and was discharged on post-operative day 10. Histopathology Spleen- Actinomycosis.

KEYWORDS

Splenectomy, Splenic Abscess, Actinomycosis

Case Report:
A 36 years old gentleman presented to the emergency with complain of pain on the left side of the abdomen for last 10 days. It was associated wit multiple episodes of vomiting and high- grade fever for the same duration.

He had a history of Hypertension, Non- insulin dependent diabetes mellitus- poorly controlled, Chronic Liver disease, Oesophageal varices, Infective endocarditis.

On Examination:
Per abdomen: Tender Left hypochondrium. Venous prominence over anterior abdominal wall.

Investigations:
USG Whole abdomen: Gallstones. CBD clear.

CECT Whole abdomen: Features of Chronic liver disease with gastric collaterals. Multiple splenic infarcts. Mild ascites.

MRI Whole abdomen: Hepatic Parenchymal disease. Gallstones. CBD clear. Splenomegaly with multiple splenic infarcts. Mild ascites. Fibro scan Liver: Grade IV Liver fibrosis.

ECHO: Moderate Mitral regurgitation with infective endocarditis.

Bloods: Hb- 9.3 gm%. WBC: 14,300/mm^3. ESR- 140 mm/1^{st} hour

After optimising the patient, he underwent Laparoscopy converted to open cholecystectomy, because of extensive adhesions around the calot's triangle, along with splenectomy. Post operatively he recovered well and was discharged on post operative day 10. Histopathology report of spleen revealed "Splenic tissue with Lymphoid hyperplasia, intraparenchymal dense mixed acute and chronic inflammatory cells, fibrinoid necrosis, thrombosed blood vessels and bacterial colonies with sunray appearance and sulphur granules, suggestive of Actinomycosis."

FIGURE 1: CECT Whole abdomen showing multiple splenic infarcts(Marked by the red arrows)

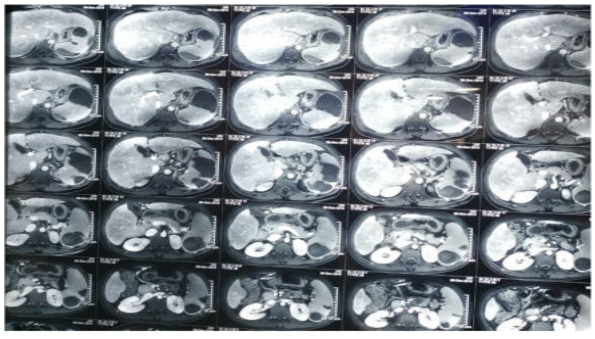


Figure 2: MRI whole abdomen showing Gallstones and Multiple splenic infarcts

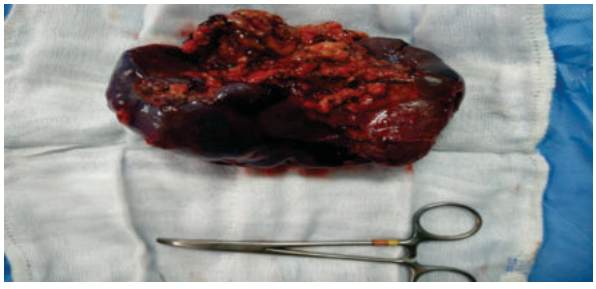
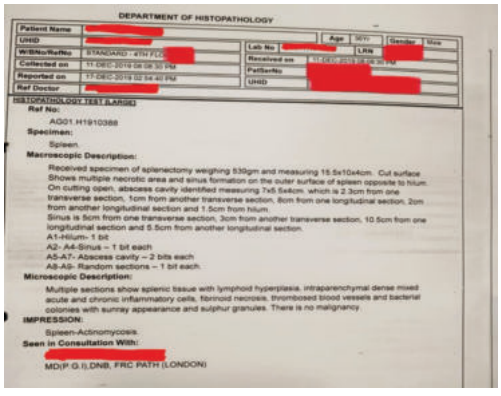


Figure 3: Splenectomy Specimen


DEPARTMENT OF HISTOPATHOLOGY

HISTOPATHOLOGY TEST (LARGE)

Ref No: AG01.H1910388

Specimen: Spleen.

Macroscopic Description:
Received specimen of splenectomy weighing 530gm and measuring 15.5x10x4cm. Cut surface Shows multiple necrotic area and sinus formation on the outer surface of spleen opposite to hilum. On cutting open, abscess cavity identified measuring 7x5.5x4cm. which is 2.3cm from one transverse section, 1cm from another transverse section, 8cm from one longitudinal section, 2cm from another longitudinal section and 1.5cm from hilum.
Sinus is 5cm from one transverse section, 3cm from another transverse section, 10.5cm from one longitudinal section and 5.5cm from another longitudinal section.
A1-Hilum- 1 bit
A2- A4-Sinus – 1 bit each
A5-A7- Abscess cavity – 2 bits each
A8-A9- Random sections – 1 bit each.

Microscopic Description:
Multiple sections show splenic tissue with lymphoid hyperplasia, intraparenchymal dense mixed acute and chronic inflammatory cells, fibrinoid necrosis, thrombosed blood vessels and bacterial colonies with sunray appearance and sulphur granules. There is no malignancy.

IMPRESSION:
Spleen-Actinomycosis.

Seen in Consultation With:
MD(P.G.I),DNB, FRC PATH (LONDON)

Figure 4: Histopathology report of the spleen reporting Actinomycosis.

DISCUSSION:

Actinomycosis is a rare cause of intra-abdominal infection.[1] The usual sites of actinomycosis are cervicofacial, respiratory and digestive tract.[3] Primary risk factors associated with this condition of intra-abdominal infection are loss of integrity of gastrointestinal mucosa (via trauma or infection), previous abdominal surgery, intra-abdominal infection, gastrointestinal foreign body and immunosuppression.[1] Splenic abscess is a rare clinical entity with a reported frequency of 0.05-0.7%. [2] It is a potentially serious surgical problem with associated high mortality when not treated.[2,5] From an epidemiological point of view, they are more frequently detected in middle-aged and older individuals, with no obvious preference for either sex.[4] The clinical manifestations of splenic abscesses usually include abdominal pain, exclusively located or, at least, more intensely described in the upper-left-quadrant area. Fever, nausea, vomiting and anorexia may be also present in various combinations.[4,5] Treatment of this condition consists of a combination of antibiotics and surgery to achieve complete recovery.[6] Antibiotic treatment is usually done with Penicillin group of drugs.

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