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EPIPLOIC APPENDAGITIS:CASE REPORT OF A DIAGNOSTIC DILEMMA

Anatomy

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ABSTRACT

Primary epiploic appendagitis (PEA) is an uncommon ,self limiting cause of an acute abdomen.It is often misdiagnosed as appendicitis or colonic diverticulitis on examination as it has symptoms and signs which are non-specific.In the current medical scenario , it should be given more importance as correctly diagnosing it would enable better management of the condition and avoid unnecessary exploratory laparotomy, surgical intervention and thereby decreasing the patient morbidity and mortality.

Here we present a case of PEA in a 47 year-old apparently healthy female with a chief complaint of intermittent right-sided lower abdominal pain with mild diarrhea. Laboratory investigations revealed an elevated CRP, Total Leucocyte Count and Total cholesterol.An USG scan confirmed the diagnosis of PEA. The patient was managed conservatively at home with oral antibiotics and advised plenty of fluid intake and bed rest. Patient recovered completely over a period of one week.

In summary, epiploic appendagitis can be efficiently diagnosed with the necessary imaging modalities and laboratory tests ,thus avoiding misdiagnosis and other irrelevant procedures.Therefore prior awareness about this disease among physicians is of utmost significance.

KEYWORDS

epiploic appendagitis, acute abdomen.

INTRODUCTION:

Epiploic appendages are normal pedunculated peritoneal fat containing outpouchings bordering tenia coli on the antimesenteric surface of the colon, extending from caecum to the rectosigmoid junction[1] Each appendage is accompanied by one or two arterioles and a venule which is present in its vascular stalks attached to the colon.[2] Variable in size (0.5–5 cm in length), shape, and location, their exact function remains unknown, although it has been postulated that the appendages may function as a blood reservoir, assist in absorption, provide cushioning, or protect against pathogens.[3]

Here, we present a case of PEA in an otherwise healthy female patient who was managed successfully with conservative approach.

CASE PRESENTATION:

A 47year-old female , (with body mass index of 25.5 kg/m 2), presented with right lower quadrant abdominal pain. The pain originated in the umbilical region radiating diffusely across the lower abdomen and subsequently localised to the right lower quadrant. The pain was described as intermittent ,sharp stabbing pain, without aggravating or relieving factors.She reported mild diarrhoea,but did not have nausea, vomiting,fever, chills, skin rash, joint pain, dysuria, hematuria, loss of weight, and trauma to the abdomen. There was no recent travel history or contact with sick people. Also, there was no history of alcoholism,smoking or illicit drug abuse. On physical examination, the patient had tenderness and pain in the right iliac fossa. There was no pulsatile or palpable mass. All of his vital signs were within normal limits. Physical examination was otherwise unremarkable.

Her investigations revealed that total leukocyte count TLC 15,170 cells/ cumm, haemoglobin 12.6 gm/dL, neutrophil 63% ,lymphocytes 33% , eosinophils 1% ,monocytes 3% ,basophils 0% ,platelet count 2.92 lakhs/cu mm, Total RBC count 4.16 million/cumm ,PCV 37.8%, MCV 90.9 fL, MCH 30.3 pg,MCHC 33.3 gm/dL, C reactive protein(CRP) 47.5 mg/ dL.LFT was normal. Total cholesterol level 295 mg/dL triglyceride 221 mg/dL LDL cholesterol 209 mg/dL.

After consulting with a radiologist,USG of abdomen and pelvis without contrast was performed. The USG scan revealed peritoneal inflammatory changes in the right hypochondrium just inferior to the fundus of the gallbladder and also adjacent to right hepatic flexure with slightly edematous adjacent colonic wall suspective of epiploic appendagitis.(fig.1)

After careful correlation among clinical, radiological, and laboratory findings, diagnosis of PEA was confirmed.

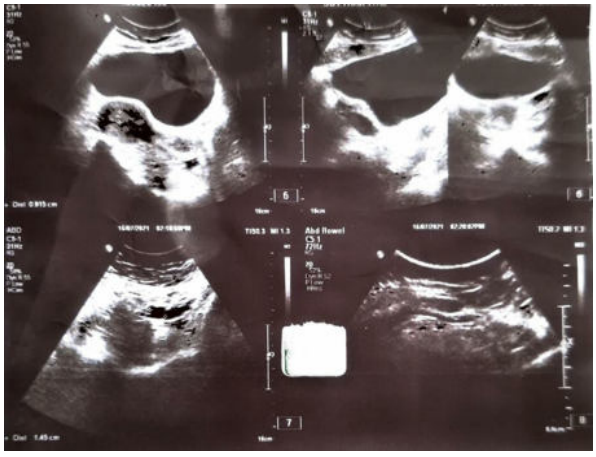

Fig.1 Ultrasound evaluation of the patient's area of maximal tenderness revealed a rounded,non-compressible,hyperechoic mass,without internal vascularity,and surrounded by a subtle hypoechoic line.Peritoneal inflammatory changes in the right hypochondrium just inferior to the fundus of the gallbladder and also adjacent to right hepatic flexure with slightly edematous adjacent colonic wall can also be seen.

The patient was managed conservatively at home with the advice of plenty of fluid intake and bed rest.Furthermore, she was prescribed oral antibiotics and antispasmodics. Complications like adhesions, bowel obstruction, intussusception, peritonitis, and local abscess formation were ruled out after the treatment period.

USG was repeated after a week which revealed minimal residual omental inflammation adjacent to the hepatic flexure resolving epiploic appendagitis.

DISCUSSION:

Epiploic appendagitis is a benign inflammatory process involving the appendices epiploicae which are found adjacent the tenia coli of the colon from caecum to rectosigmoid.[13]

Epiploic appendagitis is often found in association with obesity, hernia, and exercise injury.[14]It is most prevalent in patients in their 30–50 s with a higher frequency in males versus females.[15]

Epiploic appendagitis has been described as an inflammation resulting

from spontaneous torsion, subsequent ischemia, and gangrenous necrosis of the appendage or by primary thrombosis of the draining vein and inflammation.[4] It is of two types : Primary epiploic appendagitis (PEA) & Secondary epiploic appendagitis (SEA).Primary epiploic appendagitis (very rare in occurrence) usually occurs due to inflammatory changes following torsion of the appendages or occlusion of the venous drainage and is difficult to diagnose clinically because of lack of pathognomonic clinical features and can stimulate a case requiring surgery. Right-sided primary epiploic appendagitis is often confused with acute appendicitis or right-sided diverticulitis; whereas left-sided primary epiploic appendagitis is often confused with sigmoid diverticulitis.[5,6,7]SEA involves inflammation of a normal epiploic appendage located in proximity to an inflamed organ, such as colon (diverticulitis), appendix (appendicitis) or gallbladder (cholecystitis).[8,9,10]

Unlike these other conditions, this is a disease process which could be managed conservatively. Due to the elusive nature of the clinical presentation of acute epiploic appendagitis, it has only been diagnosed correctly preoperatively 2.5% of the time.[11]However, with the current advances in radiological tools, correct diagnosis of acute abdomen has become a lot easier, leading to timely surgical intervention and also at the same time avoidance of unnecessary exploratory laparotomy. Again, with radiological imaging,diagnosis of PEA has become much easier.[12]

Here,the patient was presented with right lower quadrant abdominal pain and diarrhoea.On clinical examination abdominal tenderness was observed.Biochemical findings revealed an elevated CRP,TLC.The patient was managed with oral antibiotics and the PEA was found to be resolved significantly by 5 days.

These non-specific clinical signs and symptoms can often lead to a misdiagnosis of acute diverticulitis or appendicitis depending upon the site of pain.

PEA being a self-limiting disease is managed conservatively with a better understanding of the disease, and conservative management is established as the treatment of choice.Surgical intervention is rarely required in patients who do not respond to conservative management or develop complications like intussusception, abscesses, and intestinal obstruction.[16]

CONCLUSION:

Epiploic appendagitis is a rare self limiting disease which lacks specific clinical presentations but it can be diagnosed with appropriate radiological and biochemical findings.Knowledge about this differential diagnosis is valuable in the fields of surgery,radiology and gastroenterology as it can prevent unnecessary surgical interventions thereby significantly reducing the morbidity and mortality among the patients.

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