International Journal of Surgery Case Reports 5 (2014) 902–905

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

An unusual cause of hematuria; primary epiploic appendagitis

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ARTICLE INFO

Article history:
Received 12 April 2014
Received in revised form 2 July 2014
Accepted 7 September 2014
Available online 28 October 2014

Keywords:
Appendagitis
Epiploic appendice
Hematuria
Dysuria
Diverticulitis

ABSTRACT

INTRODUCTION: Primary epiploic appendagitis (PEA) is self limiting inflammatory disease of colonic epiploic appendices.
PRESENTATION OF CASE: Herein, a 40 years old patient describing abdomino-inguinal pain with clotty hematuria having PEA was presented. At first, the patient was thought to have a primary bladder pathology, but after a meticioulus examination, he found to have PEA and managed by conservative measures.
DISCUSSION: Although PEA does not require surgical intervention, it may mimic other acute abdominal disorders which can be difficult to differentiate. Appendices overlying the sigmoid colon and cecum are more prone to be affected as they are more elongated and wider in size. The patient is usually admitted due to sudden onset of abdominal pain accompanied with fever, abdominal tenderness and leucocytosis.
CONCLUSION: The present case demonstrated that PEA located close to the lower urinary tract especially urinary bladder might present with urinary symptoms such as hematuria. dysuria, pollakuria and inguinal pain.

1. Introduction

Epiploic appendices are tiny pouches of fat protruding from the serosa of colon distributed from cecum to rectosigmoid.[1] They are usually arranged in two longitudinal rows along the tinea libera and omentalis supplied by one or two arterioles from the vasa recta of the colon, from cecum till to the distal sigmoid colon, and drained by a single venule. PEA is the acute inflammation of these tiny structures. It is usually caused by torsion, but the exact pathophysiology remains unclear. It is supposed that spontaneous venous thrombosis or torsion followed by hemorrhagic infarction, fatty necrosis, inflammatory reaction and subsequent peritoneal irritation cause the symptoms.[2] Lastly, the vein which is longer than the artery by virtue of its tortuous course, which makes the pedicle predisposed to twisting.

Given that PEA is a benign and self-limited condition, its recognition is important to clinicians to avoid unnecessary hospitalization, antibiotic therapy, surgical interventions, and overuse of medical resources.[4,8] PEA cases are infrequent and may often be missed even after imaging studies.[6] So far no hematuria in PEA has been reported in the literature. A patient with gross hematuria due to PEA was presented in this report with a short review of the literature.

2. Case

A 40 years old patient weighing 103 kg and 1.77 m tall describing abdomino-inguinal pain with hematuria was referred to urology out patient clinic. The history revealed temporary constipation and gastric complaints without abdominal pain. He had no history of previous surgery. Patient's temperature was 36.7 °C, blood pressure was 141/96 mm/Hg and pulse rate was 75 beats per minute. On abdominal examination he had guarding and mild tenderness in the right iliac fossa. The complete blood count and biochemistry were unremarkable. Urine analysis showed abundant hematuria. Urinary US documented a 13 mm diameter hyperechoic lesion in the bladder wall. Prostate gland had 20 cc volume with regular contours (Fig. 1) A contrast CT detailed mentioned lesion as having peripheral rim-like calcification with irregular mild contrast uptake. The center of the lesion was hypodense. It was located between the

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http://dx.doi.org/10.1016/j.ijscr.2014.09.012

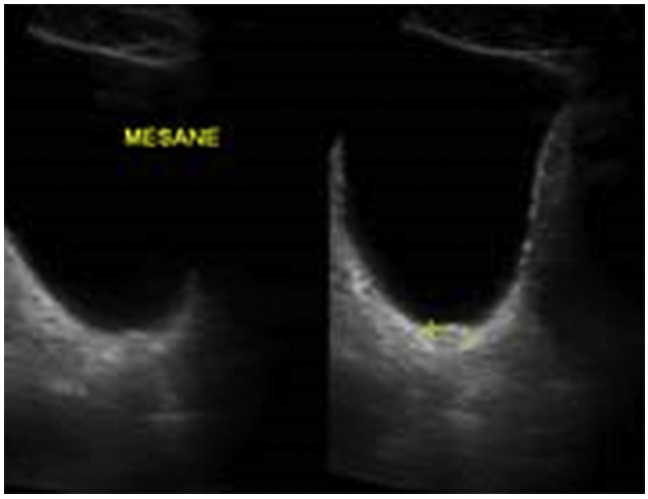

Fig. 1. Hyperechoic 13 mm lesion at the posterior bladder wall not displaced with movement.

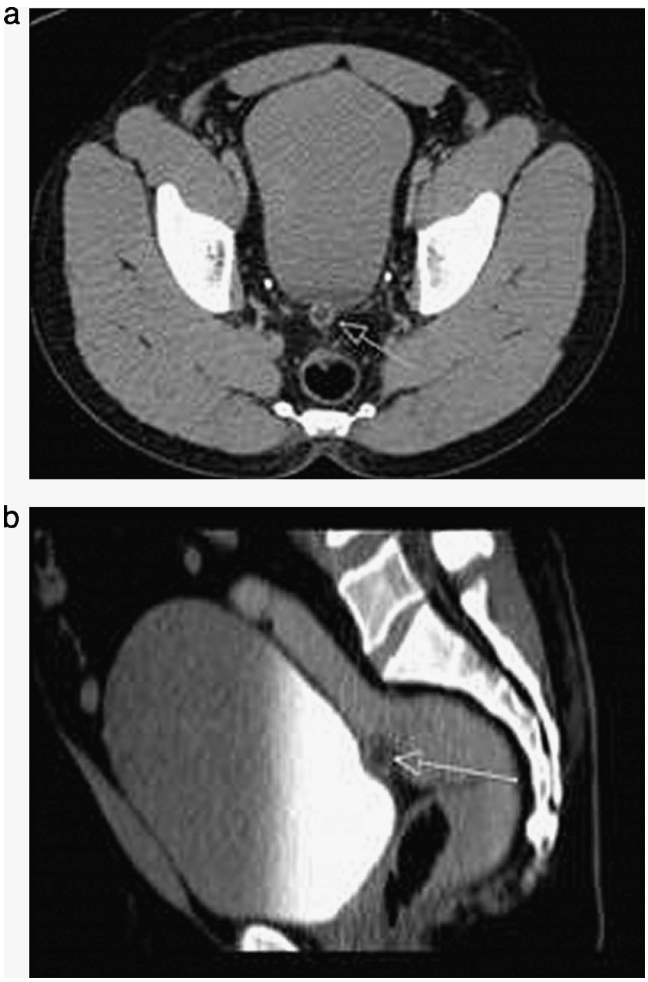

Fig. 2. (a) A slightly calcified 14 mm lesion between the bladder and rectosigmoid junction. (b) The cystic lesion without penetration of contrast medium from the bladder (cystographic lateral view).

urinary bladder and adjacent rectum causing an indentation on the bladder wall (Fig. 2a and b).

The patient underwent cystoscopy with a suspicion of primary bladder pathology. However, nothing was found but a hyperemic area at the junction of the posterior wall and bladder base (Fig. 3).

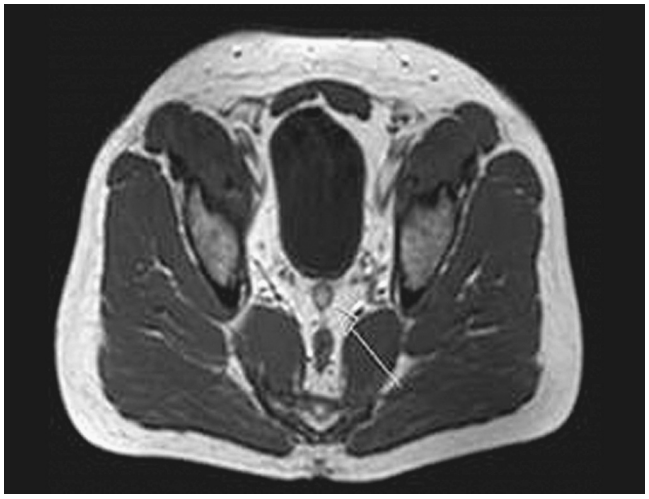

Fig. 3. Axial T1 weighted MR images revealed that central of the lesion has similar intensity to the fatty tissue correlated with epiploic appendagitis.

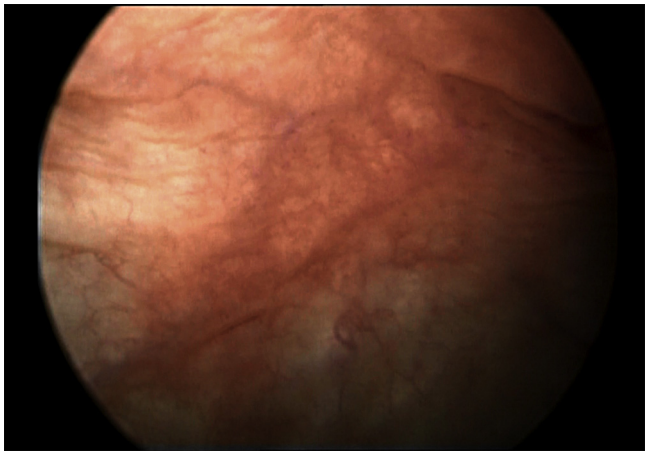

Fig. 4. Image cystoscopy; on the rear wall of the bladder mucosa hyperemic area.

Nevertheless, a punch biopsy of the area was performed. A transrectal biopsy of the aforementioned lesion was also tried but the lesion was not reached and the attempt was failed. The histopathological examination of the bladder biopsy demonstrated chronic cystitis with vascular ectasia, edema and mononuclear inflammatory infiltrate. Afterwards, a pelvic MR has been taken. Axial T1 weighted MR images revealed that center of the lesion has similar intensity with fatty tissue correlating with epiploic appendagitis (Fig. 4). The final diagnosis of PEA was made after retrospective analysis of the patient's all imaging modalities and clinical findings. He responded well to antibiotic treatment and discharged uneventfully in a week. During the follow-up period of 6 months the patient was not experienced any problem related with this disease.

3. Discussion

PEA affects individuals at 2nd to 5th decades of life, with equal distribution between men and women.[9] Patients may present with localized abdominal pain of variable intensity and duration, rebound tenderness, abdominal mass and mild fever. Nausea, vomiting and loss of appetite are the other less frequently seen symptoms. The pain may be exacerbated by coughing, deep