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Unusual presentation of a burst appendix

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ABSTRACT

A 56 year old woman referred from a district hospital for a liver mass on initial evaluation was found to have perforation of gas-containing hollow viscus. Emergency exploratory laparotomy revealed a burst appendix. She did well post op and was discharged in a healthy state. This case report was done to highlight the importance of proper history taking and clinical examination in order to prevent delay in implementing appropriate treatment.

Keywords: Burst appendix; Liver mass.

INTRODUCTION

A burst appendix typically presents with generalized peritonitis. In this case the patient had no typical features of peritonitis but was referred for further evaluation of ultrasound scan that was suspicious for a liver mass. Chest X-ray showed gas under the right dome of diaphragm. Perioperatively she was found to have a subdiaphragmatic abscess and a burst appendix.

CASE REPORT

A 56 year old female presented to the Phuentsholing district hospital complaining of right sided abdominal pain with reduced appetite and weight loss of one month duration. She was referred by the medical specialist to Jigme Dorji Wangchuck National Referral Hospital (JDWNRH) for further evaluation. As per the referral sheet, examination done at the district hospital revealed a thin, weak and dehydrated patient with stable vital signs. Abdominal examination showed an enlarged liver about 1cm from the costal margin with a hard consistency. The character of the pain and features suggestive of peritonitis were not mentioned.

Upon arrival at JDWNRH, she complained of pain in the right hypochondrium, generalized weakness, decreased appetite of one month's duration associated with nausea and vomiting, and loose stools for two weeks' duration. On examination, the patient was found to be cachectic, she was mildly pale, with a pulse rate of 90/min and blood pressure of 90/60 mmHg. Examination of the abdomen revealed diffuse tenderness with guarding, with maximum tenderness in the right iliac fossa. Auscultation of the chest revealed bilateral crepitations. A chest X-Ray was done which revealed gas under the right dome of the diaphragm (Figure 1).

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Initial blood investigations showed an elevated white blood cell count with aneutrophil predominance and hypokalaemia, hyponatremiaand hypochloraemia (Table 1).

She was prepared for emergency exploratory laparotomy. An upper midline incision was made and a right subdiaphragmatic abscess with 1 litre of frank pus was found; however the source of abscess could not be located. Extension of the incision inferiorly and a thorough examination of the abdominal cavity revealed pus tracking from the right paracolic gutter. Further examination revealed an omental mass and a burst appendix. Appendectomy of the remaining appendiceal stump was carried out and a thorough wash of the abdominal cavity was done with warm normal saline till clear fluids returned on suction. The appendiceal stump was sent for histopathological diagnosis. The tentative reason for the abscess to localize at the right side of the abdomen could have been from the patient lying typically on her right side for the past 21 days. This probably helped in containing the infection on the right side and the omentum sealed it from the rest of the abdominal cavity, and hence, made her presentation of a burst appendix very unusual.

She did well post-operatively and was handed over to the medical department subsequently for further management of dyselectrolytaemia. She responded well to the treatment and was

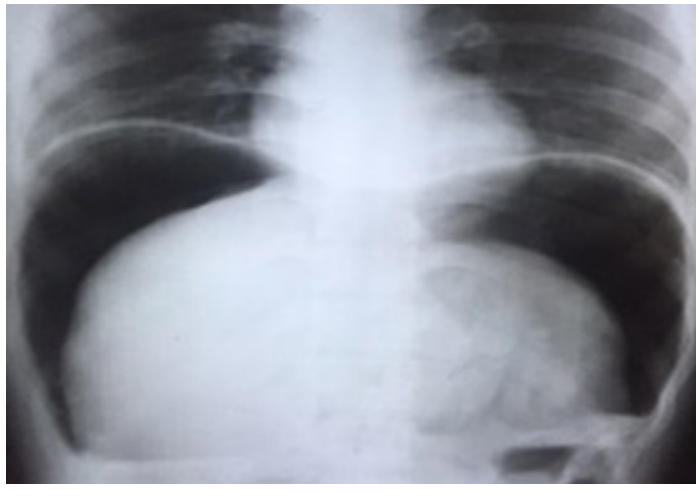

Figure 1. Chest X-ray showing gas under the diaphragm

Table 1. Blood report of the patient comparing the changes on various dates

Sl .No	Test Name	16/12/2014	28/12/2014	7/01/2015
1	WBC	15.4 10^3/ul	9.7 10^3/ul	7.3 10^3/ul
2	Neutrophil	91 %	80 %	61 %
3	Haematocrit	31 %	34 %	35 %
4	Haemoglobin	9.5 g/dl	8.9g/dl	12.7g/dl
5	RBC	3.49 10^6ul	3.83 10^6ul	3.93 10^6ul
6	Platelet	244 10^3/ul	128 10^3/ul	131 10^3/ul
7	Urea	38 mg/dl	24 mg/dl	15 mg/dl
8	Creatinine	0.8 mg/dl	1.0 mg/dl	0.7 mg/dl
9	Sodium	121 mEq/L	132 mEq/L	144 mEq/L
10	Potassium	2.0 mEq/L	3.2 mEq/L	3.3 mEq/L
11	Chloride	7 9 mEq/L	89 mEq/L	107 mEq/L
12	AST	136 IU/L	86 IU/L	56 IU/L
13	ALT	82 IU/L	65 IU/L	30 IU/L
14	Alkaline Phospatase	403 IU/L	110 IU/L	148 IU/L
15	Total Bilirubin	1.7 mg/dl	5.7 mg/dl	1.4 mg/dl
16	Direct Bilirubin	0.7 mg/dl	0.8 mg/dl	0.5 mg/dl
17	Total Protein		5.7mg/dl	6.8mg/dl
18	Albumin		3.4mg/dl	3.4mg/dl
19	Globulin			3.4mg/dl
20	Magnesium		1.0mg/dl	2.8mg/dl
21	Calcium		3.8mg/dl	7.3mg/dl
22	Glucose Random	147 mg/dl		

discharged in a stable state.

The histopathology report of the appendix showed features consistent with acute appendicitis with no other abnormalities. The patient was followed up after two months. She was ambulant, the surgical wounds had healed well, she was tolerating oral intake and her nutritional status had improved as compared to her initial presentation.

DISCUSSION

This case report illustrates the importance of a thorough examination of a patient to take into account the various differential diagnosis of a patient presenting with abdominal pain. This unusual presentation of a burst appendix as a liver mass makes it more pertinent to carry out a proper history taking and examination and to make the best use of the available resources. Literature search revealed an unusual presentation of a burst appendix as a pyogenic liver abscess[1]. Other unusual presentations included one patient presenting with pyonephrosis on the right due to a ruptured retrocaecal appendix[2]. In another case report a young girl taken for intestinal obstruction with suspicion of intussusception was found to have a burst appendix as the cause for the obstruction[3]. In a case report it was mentioned that Primary group A streptococcal septic shock syndrome simulated a perforated appendicitis in a previously healthy girl[4]. In a neonate, the perforated appendix in the hernial sac mimicked torsion of undescended testis[5]. Another unusual presentation was perforated appendix presenting with epigastric pain. CT scan done revealed an intestinal malrotation with the cecum fixed at the epigastric region and the inflamed appendix extending beside the left lobe of liver[6].

A policy to report such unusual presentation of cases would help medical professionals to share knowledge and experiences and aid in making a proper diagnosis and initiate the best management available.

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