Perforated Subhepatic Appendicitis: A Case Report

Perfore Subhepatik Apandisit: Bir Olgu Sunumu

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ABSTRACT

Acute appendicitis is among common surgical emergency. Subhepatic appendicitis is rare and difficult to diagnose and manage. A 59 year's old lady with no known medical illnesss presented with undifferentiated right abdominal pain. Difficulties come upon diagnosis and management due to retrocaecal subhepatic appendix mal location. Subhepatic appendicitis is a rare occurrence and its infrequent location makes it difficult to diagnose. Awareness of various location of appendix, a high index of suspicion and radiological imaging is required for prompt diagnosis and management

Keywords: Subhepatic appendicitis, management

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ÖZET

Akut apandisit yaygın cerrahi aciller arasındadır. Subhepatik apandisit nadirdir ve teşhis edilmesi ve yönetilmesi zordur. Bilinen herhangi bir tıbbi hastalığı olmayan 59 yaşında kadın hasta, farklılaşmamış sağ karın ağrısı ile başvurdu. Retroçekal subhepatik apendiks mal yerleşimi nedeniyle tanı ve tedavide zorluklar yaşanmaktadır. Subhepatik apandisit nadir görülen bir durumdur ve seyrek yerleşimi tanı koymayı zorlaştırır. Apendiksin çeşitli yerlerinin bilinmesi, hızlı tanı ve tedavi için yüksek şüphe indeksi ve radyolojik görüntüleme gereklidir.

Anahtar Sözcükler: Subhepatik apandisit, tedavi

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INTRODUCTION

Acute appendicitis is the most common surgical emergency and usually relatively simple to diagnose in adult (1). Diagnostic dilemma may arise in case there is abnormal location and atypical presentation (2). Subhepatic appendicitis with its rarity leads to significant challenge to diagnose and management and cause higher complication and morbidity.

CASE REPORT

A 59 years old lady presented to us with acute onset right upper quadrant pain that radiate to right iliac fossa. She also complains of fever and nausea but no vomiting or diarrhea. The patient vital sign were BP 140/78 mmHg and PR of 103 beats/minute, temperature 37.8°C, RR 18 breath per minute and SaO2 98% on room air. Examination of abdomen show tenderness without rebound and guarding present only in the right upper quadrant and epigastrium. The abdomen was not distended but obese, there was no palpable mass and normal bowel sound present.

Blood investigation show her total white count was elevated $15.1x10^9$/L with predominantly neutrophilia $11.6x10^9$/L, haemoglobin was 14.2 g/dLand platelet was $265x10^9$/L . Her C- reactive protein is elevated 32.33 mg/dl and total bilirubin slightly elevated 26.1 µmol/l but other liver enzyme, serum electrolytes and amylase levels were normal. Chest x-ray erect showed no air under diaphragm. Further ultrasound was performed that features suggestive of acute appendicitis.

This patient underwent laparoscopic appendicectomy. During procedure we noted that appendix was retrocaecal and subhepatically located and gangrene. Attempt to separate the appendix from caecum and posterior parietal peritoneum was no successful due to dense adhesion and technical difficulty. Conversion to midline laparotomy done in attempt to mobilise the caecum but due to dense adhesion between appendix, caecum and posterior parietal peritoneum, right hemicolectomy was performed with primary anastomosis. . During the same admission she was diagnosed with Diabetes mellitus and hypertension and started on treatment. She made uneventful recovery except for surgical site infection post-operative day 14 that requiring admission to hospital and vacuum dressing.

DISSCUSSION

Vermiform appendix is lymphoid organ situated posteromedial aspect of caecum. It usually located at the right iliac fossa with varieties position such as retrocaecal (65%), descending appendix (31%), transverse appendix (2.5%), preilial (1.0%) and postilial(0.5%)(2).Subhepatically located appendix is very rare and to date only reported in 0.8% of all appendicitis, which equals an annual incidence rate of approximately 0.09 per 100,00 population (3).

Subhepatic location of appendix may occur as appendix resides at right upper quadrant before caecum descends to right iliac fossa during eleventh week of fetal development.(2)

Inflammation of appendix in this situation may imitate hepatobiliary or gastric pathology clinically.. Atypical presentation may lead to diagnostic dilemma that leads to diagnosis delayed and complication such as sepsis suppuration and perforation (3). Therefore, radiologic intervention is important to support diagnosis.

Ultrasound is the first-line investigation that preferred due to its easily available and eases to perform. It is the best modality to diagnose and to rule other differential diagnosis related. Ultrasound has 86.7% sensitivity and 89.7% specificity to diagnosed appendicitis (4). For example, in our case ultrasound finding show features suggestive of acute appendicitis.

Laparoscopic appendectomy can be a challenge when the appendix is retrocaecal, subhepatic and plastered to posterior parietal peritoneum. Conversion to midline laparotomy is difficult to avoid in this difficult and complicated case. Open approach will make surgeon have better access to target and tactile input.

CONCLUSION

Acute appendicitis should always be considered as differential diagnosis for elderly patient with atypical presentation. Unusually located appendicitis such as in subhepatic location may lead to diagnostic delays at any age. Early radiological intervention may help in verify earlier diagnosis.

Conflict of interest

No conflict of interest was declared by the authors.

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