CASE REPORT PEER REVIEWED | OPEN ACCESS

Acute cholecystitis with perforated appendicitis: The first reported case

Abdulwahid M. Salih, F. H. Kakamad, Marden Husain Abbas

ABSTRACT

Introduction: Although both conditions are very common, concomitance of acute calculous cholecystitis with perforated acute has never been reported. In this paper, we present a case of acute calculous cholecystitis with perforated acute appendicitis. Case Report: A 66-year-old female presented with a four-day history of right side abdominal pain associated with nausea, pyrexic and tachycardia (pulse rate 105 beats per minute). An ultrasound of her abdomen and pelvis revealed an inflamed, thick-walled gallbladder with evidence of multiple small gallstones. Her appendix could not be visualized. A diagnostic +/- therapeutic laparoscopy was performed, which revealed an inflamed gallbladder and fluid collection in right iliac fossa with foul smelling. A combined laparoscopic cholecystectomy with open appendectomy was performed. Intraoperatively perforated appendix was found. Postoperative follow-up was uneventful and the patient was free of complaint two weeks later. Conclusion: While most of the abdominal pain refers to single diagnosis, clinicians should be aware that more than one diagnosis can still coexist.

Keywords: Acute cholecystitis, Appendicitis, Dual abdominal pathology

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INTRODUCTION

Acute calculous cholecystitis (ACC) is the most common surgical diagnosis in the developed countries and its incidence increases with age [1]. Worldwide, it is accounted as the third most common surgical emergency admission [2]. Acute appendicitis (AA) is another most common cause of emergency admission with approximately 11 in 10,000 people will develop appendicitis throughout their lifetime [3]. Although literature shows decreasing incidence of AA, papers revealed increased fatal complications of this conditions including perforation and septicemia [4].

In spite of the fact that both conditions are common, simultaneous occurrence of these diseases are extremely rare with only four reported cases in literature [5–8]. Concomitance of ACC with perforated AA has never been reported. In this paper, we present a case of ACC with perforated AA managed by combined laparoscopy and open appendectomy.

CASE REPORT

A 66-year-old female presented with a four-day history of right side abdominal pain associated with nausea. The pain started gradually from epigastric region and increased in severity in last 10 hours. On physical examination, she had a tachycardia (pulse rate 105 beats per minute) with normal blood pressure but she was pyrexic (38.4°C). Abdominal examination showed tenderness in right sides of abdomen including right iliac fossa. Murphy sign was +ve. Obturator, rovsing and psoas signs were negative. Laboratory tests showed normal white blood cell count and liver function tests.

An ultrasound of her abdomen and pelvis revealed an inflamed, thick-walled gallbladder with the evidence of multiple small gallstones. Her appendix could not be visualized and there was no free fluid in the pelvis. A diagnostic +/- therapeutic laparoscopy was performed, which revealed an inflamed gallbladder and fluid collection in right iliac fossa with foul smelling (Figure 1). A combined laparoscopic cholecystectomy with open appendectomy was performed (Figure 2). Intraoperatively perforated appendix was found. The sample was lost by the family before being examined histopathologically.

Postoperative follow up was uneventful and the patient was free of complaint two weeks later.

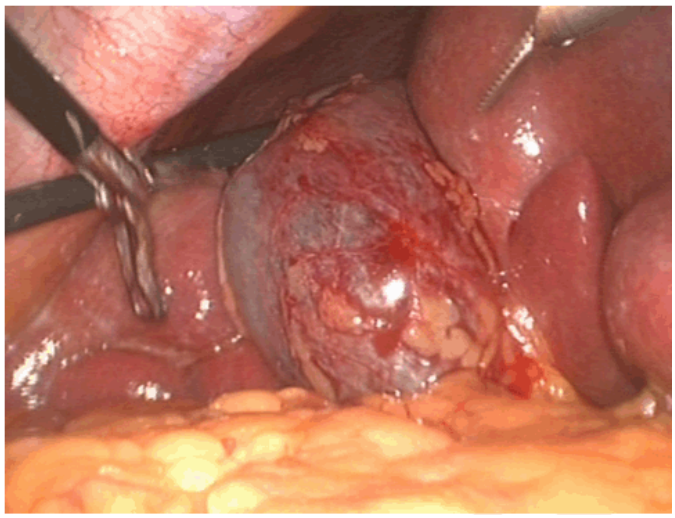

Figure 1: Laparoscopic cholecystectomy showing inflamed and distended gall bladder.

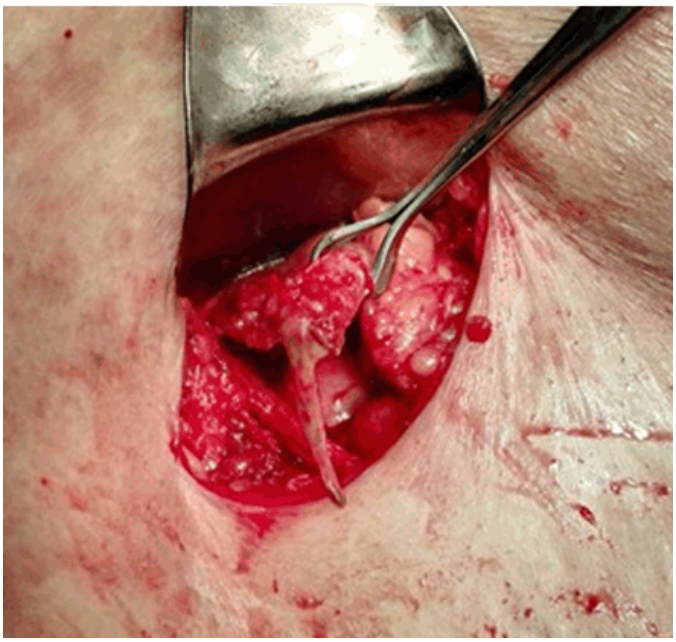

Figure 2: Open appendectomy showing perforated appendix.

DISCUSSION

Regarding acute onset of symptoms, an important principle is that combining clinical and laboratory data should fit into professional diagnosis of a condition before any sort of intervention [8]. In this case, the data were more suggestive for ACC rather than an AA as pain and tenderness was more prominent at right hypochondrium with positive Murphy's sign and ultrasound showed multiple small size stones and thick wall gallbladder.

Simultaneous cholecystitis and appendicitis in the same patient has been rarely described in English literature [5, 6]. It has been reported with four forms; an acalculous cholecystitis and appendicitis, calculous cholecystitis and appendicitis, perforated cholecystitis and appendicitis as well as during pregnancy [5–8]. To our knowledge, this is the first time to present a case with ACC with perforated AA.

With few reported cases, it is difficult to explain the etiology of concomitant occurrence of cholecystitis and appendicitis. As previously noted, hyperbilirubinemia can occur in acute appendicitis [5]. Hyperbilirubinemia associated with appendicitis explained by bacterial translocation into the portal venous system, leading to altered bilirubin excretion [5]. This could be an explanation for simultaneous occurrence of both ACC and AA. However, there is no evidence to support the exact etiology of this co-existence.

When diagnosis of an abdominal pain is in question, or when more than one pathologies are suspected, laparoscopic abdominal examination is an ideal approach which gives opportunity for both diagnosis and management of most of the surgical problem [8]. However, when difficulties are faced, timely conversion to open operation should not be delayed. In this case, after successful laparoscopic cholecystectomy has been performed, appendectomy was done in open classical way.

CONCLUSION

While most of the abdominal pain refers to single diagnosis, clinicians should be aware that more than one diagnosis can still coexist. In this situation, a diagnostic

plus/minus therapeutic laparoscopy can be an ideal approach.

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Author Contributions

Abdulwahid M. Salih – Substantial contribution to the concept and design, Revising it critically for important intellectual content, Final approval of the version to be published

F. H. Kakamad – Substantial contribution to the concept and design, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Marden Husain Abbas – Substantial contribution to the concept and design, Acquisition of the data, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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