

ACUTE CHOLECYSTITIS IN SITUS INVERSUS

Muhamad Fitri Bin Che Aun¹; Khairol Ashraf Bin Ahmad^{1,2}; Aimi Amirah Yusof²; Ahmad Nasir Ramly¹

1. General Surgery Unit, Hospital Jasin, Melaka.
2. Department of Surgery, Hospital Melaka, Melaka, Malaysia

INTRODUCTION

Situs inversus is an autosomal recessive genetic condition where are the major visceral organs anatomically located in mirrored position. Acute cholecystitis in a patient with situs inversus is clinically challenging to diagnose and might be delayed in giving appropriate management. Diagnosis with high index of suspicion is when patient presented with left hypochondriac pain only meanwhile other symptoms are grey.

CASE REPORT

A 40 years old Obese lady with underlying of Hypothyroidism and Dextrocardia was presented in Emergency Department with sudden onset of Epigastric pain and fever. The pain was described as pricking in nature and initially has been treated as Acute Coronary Syndrome. There was no ischemic changes from Echocardiogram and cardiac biomarker also within normal value. The case was referred to Surgical team after done ultrasound. The ultrasound showed the liver is situated at left hypochondriac region. It is enlarged and increased in echogenicity in keeping with fatty infiltration. Gallbladder is partially distended with a calculus seen within, measuring 2cm in size. There is presence of Gallbladder wall thickening measuring 0.5cm, with minimal pericholecystic fluid. The impression is Acute Cholecystitis in Situs Inversus and fatty liver. Clinically, she was stable and not in sepsis. Biochemistry showed total white cell count is 12.0 / μ L and liver function test is within normal value. She was treated conservatively with Intravenous Cefuroxime 1.5g tds dosage for five days and adequate analgesics. Upon discharge, she was given appointment Hepatobiliary Clinic at Hospital Melaka to counsel about Elective Laparoscopic Cholecystectomy later.



Figure 1: Ultrasound images showed spleen located at right hypochondriac (left), a gallstone measuring 2cm in size located at left hypochondriac region (right)

DISCUSSION

Acute Cholecystitis is an acute inflammation of gallbladder. It is common biliary tract disease with approximately 90% of cases are associated with gallstones. The presence of stones is the main cause of acute cholecystitis. The pathophysiology involves a gallstone obstructing the gallbladder at the neck or in the cystic duct. The gallbladder's pressure rises as a result of this restriction. The patient has biliary colic if the obstruction is partial and only temporarily. In case of a total and prolonged obstruction, the patient experiences acute cholecystitis. However, stones do not have a role in the development of acute acalculous cholecystitis. Parenteral feeding, burns, trauma, and surgery are risk factors for acute acalculous cholecystitis. Acute cholecystitis typically has a mortality rate of less than 1%. Assessment with Tokyo guideline diagnostic criteria (TG13/18) aided in classified the severity of the disease itself and if the diagnosis is uncertain. In the former study, the sensitivity and specificity of the Tokyo guideline diagnostic criteria for acute cholecystitis were 91.2% and 96.9%. If the patient doesn't start therapy early, complications such as perforated gallbladder and pericholecystic abscess could arise and the illness get worse. By virtue of uncommon occurrence Acute cholecystitis in situs inversus totalis and the limited understanding of the clinical implications of dextrocardia with situs inversus, there is a critical need to inquiry case to case basis to recuperate recognition, diagnostic accuracy, and patient outcomes. Ultrasound or CT scan modality is crucially important to confirm the diagnosis of Situs Inversus. In terms of management, the principles for treating acute cholecystitis remain the same regardless of situs inversus. Hence, this case report aims to contribute the existing knowledge base by emphasizing the description of the disease in this rare genetic condition and its clinical complications if untreated.

CONCLUSION

While situs inversus adds complexity to the diagnosis and management of acute cholecystitis, it is not an insurmountable challenge. Medical practitioners need to be aware of the reversed anatomy and adapt their approach to ensure accurate diagnosis and appropriate management for the patient. However, the best modality is Ultrasound or CT in prompt diagnosis and important in giving the definitive treatment to patient.

REFERENCE

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