



LOOKS CAN BE DECEPTIVE-A CASE OF CHILAITIDI SYNDROME

Cardiology

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ABSTRACT

Chilaiditi syndrome is generally a benign condition in which a segment of the intestine is interposed between the liver and diaphragm. Clinically the condition can be confused for other clinical emergencies. Rarely it may present with nausea, vomiting, abdominal pain and constipation, respiratory distress and rarely with chest pain. Pain is the only symptom that distinguishes Chilaiditi syndrome from asymptomatic colonic interposition which is termed as chilaiditi sign. Here we are presenting a 55 year old diabetic male with a diagnosis of dilated cardiomyopathy with incidental detection of Chilaiditi Syndrome.

KEYWORDS

Dilated Cardiomyopathy, Chilaiditi Syndrome, Chilaiditi Sign

INTRODUCTION:

Chilaiditi syndrome is an asymptomatic condition which is usually detected incidentally. Clinically it may remain silent but ultrasonographically and radiographically it may mimic some conditions leading to unnecessary surgical interventions. There is no literature on the causal association of dilated cardiomyopathy with Chilaiditi syndrome.

Case

55 years, male, diabetic and hypertensive presented to Department of Cardiology with complaints of shortness of breath and orthopnea for a week. On clinical examination pulse rate was 116/minute, irregularly irregular with a blood pressure of 124/80 mmHg with a raised JVP. Electrocardiogram showed atrial fibrillation with fast ventricular rate. Echocardiography revealed features of dilated cardiomyopathy with severe left ventricular dysfunction. Even though the patient was stable, patients' Chest X ray revealed gas under diaphragm above the Liver (Figure 1). Surgical consultation was taken. Interestingly the case was diagnosed later as a case of Chilaiditi Syndrome with Dilated Cardiomyopathy. The syndrome is generally a benign condition in which a segment of the intestine is interposed between the liver and diaphragm. This condition can be confused for other clinical emergencies and may lead to unwanted procedures. Usually this condition is found in childhood.

DISCUSSION:

Chilaiditi syndrome should be considered as a rare cause of intestinal obstruction of either the large or small bowel.[1] It is associated with a variety of pulmonary, gastrointestinal malignancies. [2] Chilaiditi sign is defined by the presence of air below the right diaphragm on a radiograph. The following criteria must be met to diagnose Chilaiditi Syndrome: 1) Right hemidiaphragm must be adequately elevated above the liver by the intestine 2) Bowel must be distended by air to illustrate pseudopneumoperitoneum, 3) Superior margin of the liver must be depressed below the level of the left hemidiaphragm.[3] Other differential diagnoses of Chilaiditi sign includes pneumoperitoneum and subphrenic abscess. A finding of normal plicae circulares or haustral markings of the colon under the diaphragm can help in ruling out other differential diagnosis. Also, changing the position of a patient with Chilaiditi sign will not change the position of the radiolucency,

unlike in a patient with free air. Also during ultrasound, altering the position of a patient with Chilaiditi sign will not lead to a change in the location of the gas echo, as opposed to a patient with pneumoperitoneum.[4] If ultrasonographically or radiographically it is not clear to determine whether the subdiaphragmatic air is free or intraluminal, a CT scan is recommended to establish an accurate diagnosis.[5] Chilaiditi syndrome can be initially misdiagnosed as a diaphragmatic hernia.[6] It is important to identify Chilaiditi sign in order to prevent complications from occurring during a percutaneous transhepatic procedure or liver biopsy, particularly in cirrhotic patients, who are predisposed to development of Chilaiditi sign. Colonoscopy should be performed with great caution due to the risk of progressive air entrapment in an acutely angulated, interposed bowel, which could potentially lead to perforation. Initial management of Chilaiditi syndrome should include bed rest, intravenous fluid therapy, bowel decompression, enemas, and laxatives. Bowel decompression documented by a follow-up radiograph can confirm both the diagnosis of the condition and the success of the therapy, by showing the disappearance of subdiaphragmatic air and repositioning of distended intestine back to the normal position beneath the liver. Surgical intervention may be required if the patient does not respond to initial conservative management, and either the obstruction fails to resolve or there is evidence of bowel ischemia.



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