



Acute abdomen as first manifestation of atrial fibrillation in young patient: A case report

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Abstract:

That acute abdomen has a myriad of causes is a well-known fact. The unusual presentation of cardiac illnesses as acute abdomen often puzzles the physicians. Here we report a case of an 18 year-old female who presented at the emergency room with complaints of colicky pain in both flanks of the abdomen, burning epigastrium and decreased urine output for 24 hours. Abdominal examination and imaging did not yield any working diagnosis. The cardiac workup showed features of atrial fibrillation. Surgeons must be aware of the fact that pain abdomen may be the first presentation of cardiac diseases like myocardial infarction, atrial fibrillation.

Key words: Acute abdomen, Atrial fibrillation, Young patient

Introduction

Colicky pain abdomen due to biliary or renal aetiology is among the commonest surgical causes for patients attending the emergency room. The occurrence of atypical manifestation of cardiac illnesses as pain abdomen is not frequently encountered in emergency room (ER) especially among the younger patients. The term “lone atrial fibrillation” has been described as atrial fibrillation (AF) in the young in the absence of identifiable causes or cardiac illnesses and it constitutes only 2% of the total proportion of patients with AF [1]. This case is reported for the rarity for the fact of AF

presenting as acute abdomen in a young patient without previous history of cardiac illness.

Case Report

An 18 year old female coming from a hilly area of Manipur presented at the ER with complaints of colicky pain in bilateral flanks associated with burning epigastrium and decreased urine output for one day. On examination she was dehydrated, with an irregular pulse and BP of 100/60mmHg. Tenderness was elicited in the right hypochondrium and both the renal angles on abdominal examination. There was no rigidity nor was the liver dullness

obliterated. However a systolic murmur was audible in mitral region. Electrocardiogram (ECG) showed features of AF. Erect x-ray of abdomen was not contributory. 2D Echocardiogram showed Ejection fraction (EF) of 35% and features suggestive of dilated cardiomyopathy and medium left ventricular systolic dysfunction with a clot in left atrium and no valvular anomaly. Patient was then started on amiodarone infusion (2.5mg/kg IV bolus, maintained with 1mg/min IV over 6 hours), analgesics, IV fluids and anticoagulants. Abdominal tenderness persisted even after 12 hrs in the above mentioned areas and the patient developed palpitations with signs of cardiogenic shock and anuria. Serum lipase was within normal limits but serum amylase was mildly elevated. Ultrasonography of abdomen couldn't reveal any surgical cause of pain abdomen. Patient succumbed due to falling haemodynamic parameters.

Discussion:

Predisposing conditions for atrial fibrillation include increasing age, heart disease, hyperthyroidism, sleep apnea, alcohol use, and a positive family history [2]. In patients with atrial fibrillation, a systematic review of published studies suggest that previous stroke or transient ischemic attack, age older than 75 years, structural heart disease, hypertension, and previous myocardial infarction are plausible risk factors for cardioembolism [3]. However our patient was a young female without any significant cardiac history in contrast to majority of patients who have previous history of AF or valvular heart disease. Causes of pain abdomen in AF described in literature are acute mesenteric ischemia [4], gastritis, splenic infarct, renal infarct [5]. However in our case the cause could not be ascertained as no CT of the abdomen was done. As rightly pointed by Barajas et al [2], patients with acute nontraumatic abdominal pain in the setting of atrial fibrillation should be evaluated for underlying intraabdominal thromboembolic or hemorrhagic complications by contrast enhanced CT (CECT). Hazanov et al [5] in his case series has noted CECT as diagnostic in 80% and ultrasound only 11% in renal embolism due to AF. These observations suggest that while USG may be helpful to rule out other causes of non-traumatic acute abdomen, CECT abdomen should be routinely done in such cases. The attending Surgeon should undertake early surgical intervention in cases like mesenteric Ischemia, haemorrhage to reduce morbidity and mortality.

Conclusion

Surgeons must be aware of the fact that pain abdomen may be the first presentation of cardiac diseases like myocardial infarction and atrial fibrillation. Timely referral and systemic examination and surgery wherever needed can decrease the morbidity and mortality. Imaging modalities like computerized tomography may help to ascertain etiology of pain abdomen.

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