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ISOLATED CAECAL NECROSIS IN A 55-YEAR-OLD FEMALE WITH ISCHEMIC HEART DISEASE: A CASE REPORT

General Surgery

Dr Suheel Megalamani — Senior Resident, Dept Of General Surgery, Shri Atal Bihari Vajpayee Medical College And Research Institute, Bengaluru

Dr Chandrashekar Naik G* — Assosciate Professor, Unit Chief, Dept Of General Surgery, Shri Atal Bihari Vajpayee Medical College And Research Institute*Corresponding Author

Dr Vinay S P — Post Graduate, Dept Of General Surgery, Bangalore Medical College And Research Institute

Dr Siddesh Kumar M Hiremath — Assistant Professor, Dept Of General Surgery, Shri Atal Bihari Vajpayee Medical College And Research Institute

ABSTRACT

Isolated caecal necrosis (ICN) is a rare form of ischemic colitis that often mimics acute appendicitis or right-sided diverticulitis. We present the case of a 55-year-old female with multiple vascular comorbidities who developed acute right iliac fossa pain and was found to have caecal necrosis. She underwent right hemicolectomy with end to side ileotransverse anastomosis. Histopathology confirmed that ischemic colitis with transmural necrosis with inflammatory exudates and perforation. Regardless of timely surgical intervention, the patient succumbed to postoperative cardiac arrest. This case points up the diagnostic challenges of ICN and the poor prognosis in patients with significant cardiovascular disease.

KEYWORDS

Background

Isolated caecal necrosis is an uncommon entity, representing a localized form of ischemic colitis. It is frequently misdiagnosed due to its clinical similarity to acute appendicitis and other causes of right iliac fossa pain. Risk factors include diabetes mellitus, hypertension, ischemic heart disease, and cerebrovascular disease, all of which predispose to vascular compromise. Early recognition and surgical resection are essential, but outcomes are influenced by the severity of comorbidities [1-4].

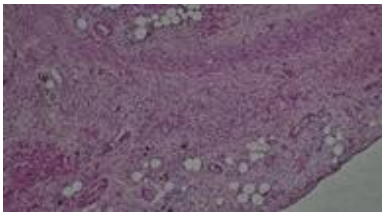
Case Presentation

A 55-year-old female with a history of type 2 diabetes mellitus, hypertension, ischemic heart disease (not on regular medication), and five prior cerebrovascular accidents presented with severe abdominal pain of 10 days duration. The pain was initially diffuse but later localized to the right iliac fossa, was continuous, severe, radiated to the back, and was aggravated by movement. She also reported moderate-grade fever with chills and rigors for 2–3 days, along with dull aching chest pain and shortness of breath. On examination, she was conscious and oriented, tachycardic, with blood pressure 140/90 mmHg and SpO_2 94% on room air.

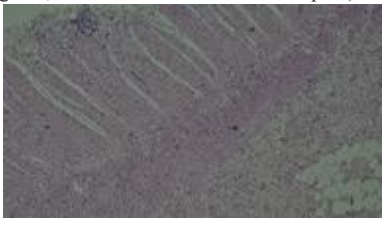
Ultrasound abdomen revealed circumferential wall thickening at the caecal base with minimal ascites. Contrast-enhanced CT abdomen suggested caecal perforation. she underwent diagnostic laparoscopy, converted to open exploratory laparotomy, with right hemicolectomy and ileotransverse anastomosis. Postoperatively, she was managed in the ICU with blood transfusion and supportive care.

Gross specimen

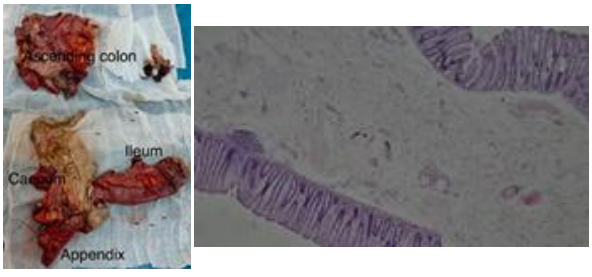
Grossly, the specimen included caecum, ileum, appendix, ascending colon with a necrotic area. Microscopy showed complete mucosal denudation, transmural necrosis, fibrinous exudates, mixed inflammatory infiltrates, vascular congestion, and occasional fibrin thrombi. Findings were consistent with ischemic colitis and perforation.



Histopathology: Slide 1 showing Gangrenous Caecum with outer muscle layers and inner disrupted mucosa and inflammatory exudates (Due to Gangrene, normal HPE of caecum is disrupted).



Slide 2 showing Appendix with congested blood vessels and inflammatory cell infiltrates (with obliterated lumen)



Slide 3 Showing Normal Ascending Colon

Course: The patient developed sudden right-sided weakness, dysarthria, and tachycardia. ECG revealed T-wave depression in leads V1–V3. Despite initiation of aspirin, rosuvastatin, and intravenous heparin infusion, she suffered a cardiac arrest and could not be revived. The immediate cause of death was cardiac arrest with caecal necrosis secondary to ischemia and ischemic heart disease as antecedent causes.

DISCUSSION

ICN is a rare but important differential diagnosis in patients presenting with right iliac fossa pain, particularly in those with vascular comorbidities. Radiological findings may suggest caecal wall thickening or perforation but are nonspecific. There was ambiguity between USG and CT scan. Histopathology will be the gold standard for diagnosis and confirming the gangrenous/ischemic changes and excluding neoplastic or infective causes [1,2].

The most commonly performed type of treatment is surgical resection; a right hemicolectomy is often carried out. The patient's comorbid condition and the time of the intervention determine the prognosis. In this instance, the patient's cerebrovascular history and underlying

ischemic heart disease culminated to a fatal postoperative cardiac episode even with proper surgical care. This emphasizes how important thorough perioperative care is for individuals at high risk[3,4].

CONCLUSION

Isolated caecal necrosis is a rare but serious cause of acute abdomen. It should be considered in elderly patients with right iliac fossa pain and vascular risk factors. Early diagnosis and surgical intervention are essential, but prognosis remains guarded in patients with significant cardiovascular comorbidities

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