Idiopathic Omental Infarction: A Case Report and Review

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Abstract

The term idiopathic is coined when no cause is identified such as tumors, adhesions, trauma or torsion to account for the infarction of a segment of omentum. Still rare in the surgical literature, idiopathic omental infarction continues to be an area of debate when it comes to its best management.

We present a case of a middle aged lady who was diagnosed at laparotomy and underwent segmental omental resection with good postoperative course.

INTRODUCTION:

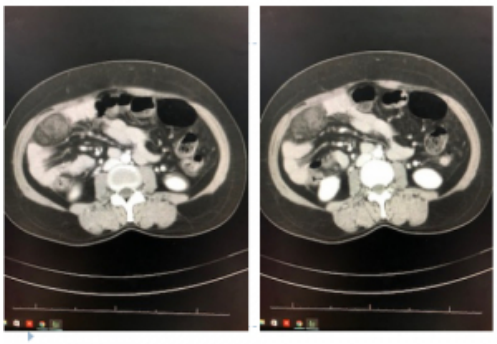
Idiopathic omental infection (IOI) is a rare cause of acute abdominal pain presenting to emergency departments. There is no known incidence, but worldwide there are about 400 cases reported, 85% of them were in adults between 40-50 years old. About 4 of every 1000 cases of presumed appendicitis is found to be IOI (1). The increasing use pf CT scans and laparoscopy in the assessment of acute abdomen may lead to more reports of IOI.

CASE REPORT:

A 35-year-old female with no significant past medical or surgical history presented to the emergency with right sided abdominal pain of one day duration. Pain was of increasing severity and associated with nausea and three episodes of vomiting. There were no other associated symptoms and the physical examination was only remarkable for right sided tenderness. Blood tests were normal as were the abdominal and chest x rays. The patient was admitted for pain management and further evaluation. The next day, her pain was even worse and the tenderness was still there. There was also an elevation of her WBC to above 11000/cc. At that point a contrast CT of abdomen was obtained and showed a circumscribed density adjacent to the ascending colon and surrounding stranding with no other gross visceral pathology.

Figure 1

CT scan of abdomen



In view of worsening patient symptoms in spite of analgesia she underwent a lower midline laparotomy which revealed a 6x5 cm infarcted omental segment which was resected. There was no other pathology detected upon exploring the abdomen and pelvis. The appendix was removed simultaneously to prevent future confusions. The patient had an uneventful postoperative course and was discharged symptom free after 48 hours. Histopathology of resected omentum showed fibro-adipose tissue with hemorrhagic inflammatory changes and fibrosis with no malignancy.

DISCUSSION:

Idiopathic omental infarction remains a rare diagnosis of right-side abdominal pain. The preponderance to the right side is unexplained. The increased length of the omentum on the right side rendering it liable to torsion is postulated as an

explanation which might be the reason why it is even more rare in children. There are no clinical features that can point to the diagnosis. In fact, most of the cases are taken initially as appendicitis or cholecystitis depending on which quadrant of the right abdomen is involved. Likewise, blood tests carry no specific findings. Only contrast CT scans might be of value in preoperative diagnosis, showing localized fat density with surrounding stranding and whirl sign(2), although ultrasound might show complex masses and rules out other intraabdominal conditions like gallstone disease for example(3).

There is so far no consensus on management of suspected cases of IOI.As some cases are diagnosed intraoperatively, the decision to resect or leave the infarcted omentum are both valid. Lindley et al reported a case of IOI diagnosed at laparoscopy in which infarcted omentum was not resected. Their patient needed 8 days of postoperative analgesia (1). On the other hand, Abdul Aziz and colleagues diagnosed and resected IOI at laparoscopy and their patient was discharged next day without the need for analgesia (3). The case for non-operative treatment seems to be applicable in clinically stable patients in whom the diagnosis is made with acceptable certainty upon preoperative imaging. The risk of omental abscess as a complication of non-operative treatment appears to be theoretical rather than real. Barai et al reported successful conservative treatment of IOI diagnosed on CT scan. Their case needed a total of 9 days monitoring and anti-inflammatory treatment (4). In contrast, Kataoka and colleagues recommended laparoscopic omentectomy for CT diagnosed omental infarction (5).

Our case was surgically explored for worsening symptoms, inflammatory mass of unknown etiology and leucocytosis. It would have been better in terms of postoperative course if the exploration was laparoscopic, but admittedly, the possibility of IOI was not considered or even was not thought of at that time.

In a case report by Karanikas and colleagues infarcted omentum was diagnosed through a McBurny's incision for a presumed appendicitis. They converted to midline laparotomy to proceed with the omental resection (6).

CONCLUSION:

Omental infarction should be considered in all cases of right sided abdominal pain of obscure etiology. In this context, contrast CT scans of abdomen must be considered early in the workup.
Laparoscopy has both diagnostic and therapeutic values and resection of infarcted omentum leads to rapid resolution of symptoms.

In clinically stable patients and where the diagnosis is clearly reached on CT images, there is a room for non-operative management at the expense of prolonged monitoring and longer anti-inflammatory treatment courses.

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