

OMENTAL INFARCTION: AN UNUSUAL CAUSE FOR ACUTE ABDOMEN

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Abstract: A middle aged man presented with intermittent worsening type of pain abdomen for two days in the upper right half of the abdomen. Pain mimicked other causes of pain abdomen in that region. Patient underwent computed tomography imaging which established the diagnosis of omental infarction. Patient was put on conservative treatment but the pain worsened. So patient underwent diagnostic laparoscopy which identified the part of torsioned gangrenous omentum adherent to anterior abdominal wall, which was excised and patient was asymptomatic and discharged the next day. In this report, we want to emphasise the role of laparoscopy for diagnosis and early treatment of the above condition.

Keywords: Omentum, infarction, torsion, diagnostic laparoscopy.

I. INTRODUCTION

Omental infarction is an uncommon but important cause of acute abdominal pain, which frequently mimics other surgical presentations. It is increasingly being reported in surgical and radiological literature, on account of advancing imaging techniques and improved recognition of its radiographic presentation [1, 2]. Multiple etiological factors have been associated with Omental infarction, rendering infarcted Omental tissue. Wide varieties of treatment options are available. Here we report a case of Omental infarction with torsion managed with laparoscopy.

II. CASE REPORT

A middle aged man presented to outpatient with complains of pain in the right upper region of the abdomen which was intermittent for a period of two days. . There was no associated symptom of nausea, vomiting, change in bowel or urinary habit or fever in the patient. On examination patient had tachycardia, tenderness in the right upper quadrant and localized guarding [voluntary]. Patient was admitted for observation with working diagnosis of acute cholecystitis. All the laboratory investigations were within normal limits. Ultrasound abdomen was normal. Patient had relief of symptoms only till the effect of analgesia. Patient underwent computed tomography which revealed increased density and stranding in omental fat in the right upper quadrant, suggestive of segmental infarction of omentum. Patient was advised medical line of management. The symptoms worsened with the day of admission. Patient underwent diagnostic laparoscopy which revealed segmental infarction and torsion of the right part of greater omentum which was excised. Patient was asymptomatic by the first postoperative day and was later discharged without any complications.

III. DISCUSSION

The main objective of this case report is to bring to the notice of the clinicians that a possibility of Omental Infarction should be always borne in mind as a differential diagnosis while managing patients with right abdominal pain or epigastric pain. The classic presentation of omental infarction with localized pain, occasional vomiting, no or minimal features of sepsis may be simulated by other clinical entities like acute cholecystitis, acute appendicitis, acute gastritis, acute pancreatitis, ovarian torsion, ureteric colic etc. A mass maybe palpable if the involved omentum is large enough. However ultrasonography can confirm many of these differentials but still a negative ultrasonography is not uncommon in these conditions. Though this condition is more than hundred years old [3] in literature it gains significance due to an increase in the contributing factors in recent years like obesity, local

trauma, heavy food intake, coughing, sudden body movements, laxative use and hyperperistalsis [2,7]. In the past the diagnosis of a primary omental infarction was made after laparotomy for acute abdomen. In fact omental infarction occurs at a rate of 0.1% of all laparotomies performed for acute abdomen [4] and is estimated to have an incidence of 0.0016-0.37% [5].

However now with Computed Tomography a diagnosis of Omental infarction can be made radiologically and can be easily managed laproscopically. The morbidity and mortality associated with the sequelae of the various differential diagnoses resulted in mandatory exploratory surgeries in the earlier reportings, though the Omental infarction was innocuous in nature. [7]. with the advent of laparoscopy as a diagnostic tool the morbidity of the major laparotomies are avoided.

Omental Infarction occurs due to torsion [axial twisting of the omentum along its long axis]. The twist may be tight enough to cause venous compromise, later leading onto compromised arterial inflow if persistent. The final result being infarction and necrosis of omentum. It is classified as primary when no cause is identified and secondary when torsion is in association with a hernia, tumour or adhesion. The right side of the omentum is more commonly involved in omental infarction than the left due to increased length and mobility [9] which leaves it more prone to tort upon itself along its long axis causing vascular compromise. One study reports that 90% of omental infarction involves the right side of the omentum[10] .

Surgical management of omental torsion and infarction involved omentectomy by a laparoscopic approach which allowed visualization of other intra-abdominal organs for a causative or associated pathology. Laparoscopy has been preferred due to low morbidity involved and omentectomy requires minimum time and expertise and can be performed without sophisticated equipment. It has been suggested that surgical treatment of Omental infarction should be limited to those with complications such as omental abscess, bowel obstruction or adhesion formation after failure of conservative management, or in cases of diagnostic uncertainty[6] , however the authors advocate the use of diagnostic laparoscopy and early omentectomy [once radiological diagnosis is made] as there is always risk of complications or recurrent pain with gangrened omentum left in situ in the abdomen.

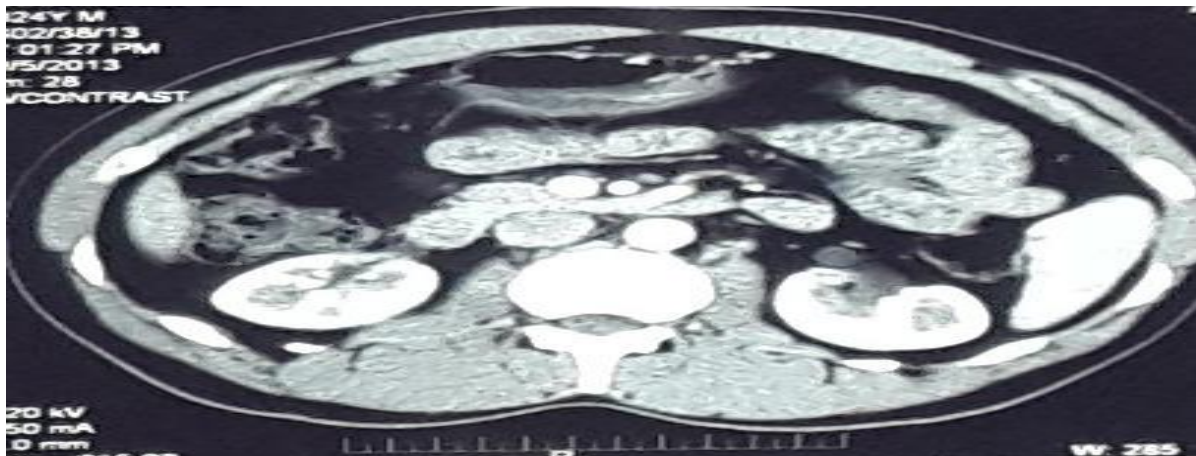


Figure 1: ct scan showing omental infarction.



Figure 2: laparoscopy showing Omental infarction (O I) adherent to anterior abdominal wall.

IV. CONCLUSION

Omental infarction should be considered as a differential diagnosis in the presentation of acute abdominal pain especially on the right side when ultrasonography and other lab investigations are equivocal. Exact etiopathogenesis for the condition is not known. Computed Tomography is the investigation of choice. Diagnostic laparoscopy plays an important role in deciding early intervention of the disease per se.

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