



## Right Sided Omental Infarct: Report of a Case with Radiological Findings

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### Abstract

Omental infarct is an infrequent cause of sudden acute abdominal pain which resulted from focal torsion or lack of blood flow to a portion of the omentum [1]. The clinical diagnosis remains challenging without complementary tests such as Computed Tomography (CT) as the clinical presentation of this condition can mimic other acute intra-abdominal conditions. The aim of this report is to bring attention to this uncommon disease.

Here we present a case of a spontaneous right sided omental infarction in a healthy 25-years old male patient.

**Keywords:** Omental infarct; Cholecystitis; Cecal diverticulitis

### Introduction

Omental Infarct (OI) grouped under broader umbrella of intraperitoneal focal fact infarct along with epiploic appendagitis and perigastric appendagitis [2]. It is a rare condition causing acute abdominal pain. In most cases patient present with right sided abdominal pain similar to acute appendicitis, although it can present as left sided or epigastric pain [3]. Because of variety of differential diagnosis, the clinical diagnosis of the condition will be indistinguishable without radiological examination.

OI generally classified into primary and secondary. Primary OI occurs due to kinking of venous channels, compromise of arterial supply, omental torsion or could be idiopathic. Secondary OI related to surgery, abdominal trauma or omental inflammation [4]. This condition is often self-limiting and can be managed conservatively [5-7].

### Case Presentation

A 25-years old male patient, previously healthy with no past medical or surgical history presented to ER with sudden onset right lower abdominal pain for 2 days. Patient deny any history of fever, nausea or vomiting. He has normal bowel & urinary habits. Other systemic review was unremarkable. Physical examination revealed abdominal tenderness in right lower quadrant with rebound tenderness on right iliac fossa, Positive Rovsing sign and negative Morphy sign. Blood investigation was done shows high inflammatory markers (CRP 42, WBC 12, neutrophils [8]. Coagulation Screen, urea, electrolytes, amylase, liver function test were all normal. X-ray abdomen was normal. Ultrasound abdomen show small amount of free fluid in the right iliac fossa. Post-contrast CT (Figure 1, 2a, 2b) of the abdomen and pelvis was done show diffuse fat stranding of the right side of the omentum at the right upper quadrant surrounding a dense vascular structure. The fat stranding is extending to the right iliac fossa anterior to the ascending colon (from the sub-hepatic region to the ileocecal valve level). The appendix on CT was normal. The CT findings were compatible with right side omental infarction. Patient was treated conservatively with analgesia & discharge next day without any complications with advice to present to ER if symptoms getting worse.

### Discussion

The greater omentum is the largest peritoneal fold, with cribriform appearance, hammock of fibrofatty tissue which descend from the greater curvature of the stomach to the transverse colon. It contains anastomosis between right and left gastroepiploic arteries. Greater omentum has marked mobility within abdominal cavity [6].

There are two main types of omental infarction have been described: Primary and secondary

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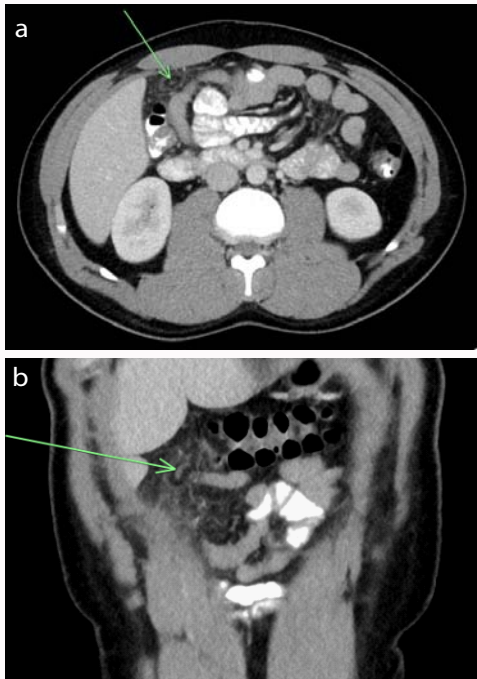
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**Figure 1:** Post-contrast CT of the abdomen and pelvis showing omental fat stranding in the right upper quadrant (arrow).



**Figure 2a, 2b:** Post-contrast CT of the abdomen and pelvis showing hyper dense vascular structure (arrow) superior to area of omental fat stranding in the right upper quadrant likely thrombosed vein.

infarction. In most of cases of OI reported, the symptoms appear as right sided abdominal pain resembling acute appendicitis, acute cholecystitis or cecal diverticulitis. Left-sided omental infarction is unusual but has been reported [7].

As the OI has low incidence & the majority of patient has non-specific symptoms, CT scan has great role to confirm the diagnosis and exclude other differentials [8].

In these cases, the initial clinical presentation was mimicking acute appendicitis. However, unlike acute appendicitis, the patient has no gastrointestinal symptoms. Inflammatory markers level (WBC & CRP) is usually reported to be normal or slightly elevated [9]. However, in our case the inflammatory markers were elevated.

Radiographic features of omental infarction in ultrasound manifest as increased echogenicity in the omental fat at focal area. Although, ultrasound is less specific and, in some cases, may lead to misinterpretation [10]. CT scan is more specific and it show focal fat stranding, omental vessels swirling in omental torsion and hyper dense peripheral halo [11].

## Conclusion

Omental infarct should be considered in the differential diagnosis of patients with acute abdominal pain and CT scan is the radiological investigation of choice. Early identification of the diagnosis will avoid unnecessary surgical interventions.

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