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Case Report

Omental Infarction After Infectious Caesarian Section: A Case Report

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Abstract

There have been about 300 cases of omental infarction reported in literature. Omental infarction is a rare disease entity that can cause acute or subacute abdominal pain. In the past, it was thought that omental infarction mainly occurred on the right side because it was detected when surgery was performed on patients who complained of abdominal pain on the right side. Although the classical treatment of omental infarction is surgery, more recently the conservative management has been suggested. Thus, we believe that the knowledge of the characteristic imaging findings is essential for establish a correct preoperative diagnosis, which can avoid unnecessary surgical intervention. This case presentation wants to show rare results of abdominal surgery and following the patient after surgery is so important.

Our case was a 19 years old female with abdominal pain that underwent caesarian section 10 days before, that CT scan shows infection in uterine and abdomen and in laparotomy omental infarction and infected uterine was seen. After treatment she discharge healthy. By adding omental infarction to the list of differential diagnoses in patients who present with acute abdominal pain, future management of patients with an acute abdomen can be adjusted for the optimal approach to not overlook any surgery-requiring diagnosis as well as to prevent overtreatment.

Keywords: omental infarction; caesarian section; abdominal pain; ct scan, emergency medicine

Introduction

Omental infarction is a rare disease entity that can cause acute or subacute abdominal pain. In the past, it was thought that omental infarction mainly occurred on the right side because it was detected when surgery was performed on patients who complained of abdominal pain on the right side (1) . Omental infarction is a rare condition that has not been well studied or well characterised in the literature. Because the treatment is supportive care, early recognition can reduce patient morbidity and minimise invasive workups and unwarranted treatments. As of now, the incidence of omental infarction has yet to be accurately determined and only 400 cases have been documented in the literature to date (2). Omental infarction in adults is a rarely occurring phenomenon, with left-sided omental infarction being even more seldom (3). Omental infarction is a rare disease that affects the entire omentum or a segment of the greater omentum, the cause of which sometimes remains elusive (4,5). There have been about 300 cases of omental infarction reported in literature (6,7). Although the classical treatment of omental infarction is surgery, more recently the conservative management has been suggested. Thus, we believe that the knowledge of the characteristic imaging findings is essential for establish a correct preoperative diagnosis, which can avoid unnecessary surgical intervention. This case presentation wants to show rare results of abdominal surgery and following the patient after surgery is so important (8). There are two main categories of omental infarctions primary and secondary (2). Traditionally, omental infarctions were diagnosed during surgery. However, new advancements in imaging techniques have allowed for the diagnosis to be determined outside of surgery such as in our case. CT scans are the imaging studies of choice. Greater omental pathologies can be divided into four categories caking (the displacement of omental adipose tissue by soft tissue), fat stranding, cystic masses and discrete nodules (2). We report this case because it is so rare and in common situation you can see.

Case presentation:

This case is about a 19 years old female that has caesarian section 10 days before and now referred to surgery parts with abdominal pain. We admit her and start examination that lab data was normal but a low-grade fever we detect. We do abominopelvic CT scan for her that shows about 500cc liquid in pelvic and because of suspicious for uterine damage in CT, we do laparotomy for her. We find pus in pelvic (figure1) and we search for source of infection that findings show it is about uterine and procedure of caesarian section. We find a necrotic and pale omentum (figure2) that express omental infarction. We wash and clean abdominopelvic and start conservative therapy and after 5 days we discharge her healthy.

Figure 1: pus in pelvic

Figure 2: Omental infarction

Discussion:

A major challenge to the diagnosis of omental infarction is that it can mimic the classic presentation of an acute abdomen (2,13). Based on patients' symptoms, they most commonly fit the picture of peritonitis. Laboratory values can show a non-specific inflammatory response (2,14).

Differential diagnosis :(9)

Ischaemic colitis. Acute cholecystitis. Epiploic appendagitis. Trauma.

Small bowel obstruction from adhesive disease from prior surgical intervention.

Ileus. Diverticulitis. Pancreatitis. Ovarian cyst. Ectopic pregnancy.

Although the classical treatment of omental infarction is surgery, more recently the conservative management has been suggested. Thus, we believe that the knowledge of the characteristic imaging findings is essential for establish a correct preoperative diagnosis, which can avoid unnecessary surgical intervention. This case presentation wants to show rare results of abdominal surgery and following the patient after surgery is so important (12). Today there are two main strategies in the management of omental infarction, conservative and laparoscopic excision. Classical laparotomy is no longer performed due to its invasiveness compared with the conservative or laparoscopic approach (2). Conservative management includes oral analgesic medications, anti-inflammatory medications and antibiotics. The advantage of early surgical intervention is the reduced incidence of necrosis, abscess formation and adhesion formation. Laparoscopic surgery can also decrease the patients' time in the hospital. A disadvantage of conservative management is that symptoms can persist for weeks with the mean time of resolution being 13.5 days (2). However, there are the natural risks of laparoscopic surgery including complications with anaesthesia, intraoperative hazards and postoperative morbidity. In patients who are non-operative candidates due to comorbidities and conservative management remains a preferable option. In our case report, a conservative approach led to symptom resolution (2).

Conclusion:

Omental infarction should be included in the differential diagnosis list of acute abdominal pain because it can occur at any site. In addition, because this disease runs a self-limited course, conservative care is recommended. Thus, unnecessary operations can be avoided in cases where omental infarction is diagnosed by imaging studies (1). Omentum biological properties include Neovascularization, homeostasis, tissue healing and regeneration and as an in vivo incubator for cells and tissue cultivation. Some of these properties have long been noted in surgical practice and used empirically in several procedures (10). Only in uncommon circumstances of unclear imaging findings or deterioration in the patient's conditions, a diagnostic laparoscopy as a minimal invasive approach may settle the diagnosis and can be extended to a therapeutic maneuver (11). By adding omental infarction to the list of differential diagnoses in patients who present with acute abdominal pain, future management of patients with an acute abdomen can be adjusted for the optimal approach to not overlook any surgery-requiring diagnosis as well as to prevent overtreatment (1).

Learning points: (2)

Omental infarction should be included in the differential diagnosis list of acute abdominal pain in order to prevent unnecessary surgical interventions. Traditionally, omental infarctions were diagnosed during surgery. New advancements in imaging techniques have allowed for the diagnosis and it is important to be aware of imaging findings consistent with the diagnosis. This disease appears to be a self-limited course, treated with conservative care including pain control and fluids. Unnecessary operations, consultations and treatments can be avoided in cases where omental infarction is diagnosed by imaging studies

Declarations:

Ethical Approval and Consent to participate: The content of this manuscript are in accordance with the declaration of Helsinki for Ethics. No committee

approval was required. Oral and written consent to participate was granted by her husband.

Consent for publication:

"Written informed consent was obtained from the patient's legal guardian for publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal."

- Availability of supporting data

It is available.

- Competing interests:

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Ahmad Reza Shahraki is the surgeon of patient and writes this paper.

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