Intraperitoneal focal fat infarction – Diagnosis and percutaneous management

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Introduction
We present a case of an unusual presentation of Intraperitoneal focal fat infarction (IFFI) with a later complication treated with non-operative means.

Case History
• 68 Year old female
• Presented to the surgical department with left iliac fossa pain and post prandial vomiting for 7 days.
• On examination she was apyrexial and had left iliac fossa tenderness. Her white cell count was 12.8 x 109/L
• Past medical history included Whipple’s procedure 5 years previously for a pancreatic pseudocyst and 7 years previously underwent a lumpectomy for breast malignancy
• Initial CT scan revealed a large mass within the left anterior abdomen with central fat density, marginal enhancement, a distended vessel coursing through the centre and hazy increased density of the fat outside of the structure (figure 1.2).

Clinical Course
• Imaging confirmed a diagnosis of infarction of a portion on the greater omentum.
• Initially conservative management with analgesia but re-attended 2 weeks later with further pain in the left iliac fossa and epigastrium with persistent post prandial vomiting, anorexia and weight loss. Her neutrophil count had climbed to 20.04 x 109/L.
• A repeat CT scan showed mild enlargement of the well-defined mass, with the development of fluid attenuation within the centre and several pockets of air. The fat liquefaction from the necrosis of the omental infarction was thought to have become infected and percutaneous drains were inserted under ultrasound guidance.
• Microbiology analysis of the drained material revealed mixed coliform bacilli. Sample was amylase was negative.
• Her persistent symptoms improved with drainage of the liquefaction. A follow up CT scan 10 months later shows complete resolution of the changes (Figure 3).

Figure 3 – complete resolution of infected IFFI

Comment
• The term “intraabdominal focal fat infarction”, or IFFI, encompasses a range of conditions where infarction of fatty tissue is the underlying pathological process, including epiploic appendagitis (EA) and segmental omental infarction, as well as rarer entities such as falciform ligament infarction.
• IFFI mimics more common intra-abdominal pathology and is frequently misdiagnosed [1]. A radiological diagnosis based upon the specific features is vital as IFFI can be managed conservatively with oral anti-inflammatory therapy and correct diagnosis negates further investigation and potential surgical treatment [2].
• Further imaging may be required when symptoms and signs deteriorate on a conservative management pathway, as complications such as fat necrosis, liquefaction and secondary abscess formation may be identified and prompt a change in management.

References

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