Acute Focal Omental Infarction of Anterior Abdomen Case Report: Diagnostic Challenges and Osteopathic Considerations

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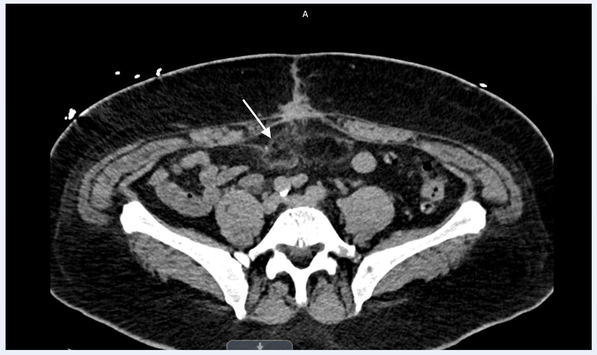
Background/Introduction

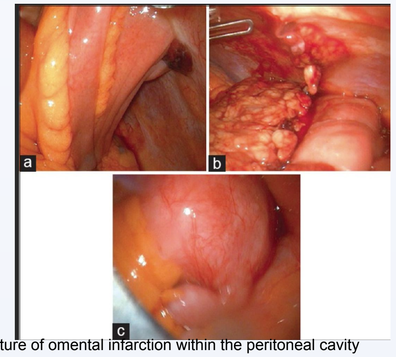
Focal omental infarction (FOI) is an uncommon and often underrecognized cause of acute abdominal pain, frequently mimicking appendicitis, diverticulitis, or other surgical pathologies. It is more prevalent in patients with obesity, prior abdominal surgery, or hypercoagulable states. Because clinical presentation is nonspecific, CT imaging plays a critical role in diagnosis and prevention of unnecessary operative intervention. Conservative management is typically sufficient in hemodynamically stable patients.

Primary omental infarction[2-4]	Secondary omental infarction
Obesity	Cyst and tumor
Local trauma	Internal hernia
Heavy food intake	Diverticulitis
Chronic cough	Vasculitis and hypercoagulation status
Sudden body movements	Polycythemia
Laxative use	Omental torsion
Hyperperistalsis	Adhesions
Occupational vibrations	Laparoscopic-assisted distal gastrectomy
Excessive exercise	Right heart failure

Causes of primary and secondary omental infarction



CT scan of patient's omental infarction



Picture of omental infarction within the peritoneal cavity

Case Description

A 55-year-old male with pertinent past medical history of obesity, nonalcoholic fatty liver disease, bariatric surgery (2024), diverticulosis, gastrojejunal ulcer, obstructed ventral hernia, umbilical hernia, and recent I&D of perirectal abscess presented with acute, sharp right lower quadrant pain of sudden onset.
He denied nausea, vomiting, fever, or gastrointestinal bleeding. He reported dysuria at initiation of urination.

Physical Examination:

- Localized RLQ tenderness
- No guarding, rigidity, or peritoneal signs

Laboratory Findings:

- Leukocytosis (WBC 11.9 ×10³/μL)

Imaging:

CT abdomen/pelvis demonstrated a focal omental infarct measuring 8.6 × 4.3 cm without evidence of appendicitis or perforation.

Management & Hospital Course:

The patient was treated conservatively with IV fluids and opioid analgesia and admitted for surgical observation. No operative intervention was required as symptoms improved during admission.

Discussion

FOI is a rare but important diagnostic consideration in patients presenting with acute right lower quadrant pain, particularly those with prior abdominal surgery or obesity.

Key Differential Diagnoses:

- Appendicitis
- Diverticulitis
- Epiploic appendagitis
- Renal colic

CT imaging is diagnostic, typically revealing a well-circumscribed area of fat stranding within the omentum. Early radiographic identification allows for nonoperative management and avoidance of unnecessary surgical exploration.

Osteopathic Considerations:

Prior abdominal surgery may contribute to fascial restriction and altered vascular or lymphatic drainage of the omentum. Somatic dysfunction in the thoracolumbar region (T5–T9 sympathetic innervation to foregut structures) may influence visceral perfusion and inflammatory response. Osteopathic manipulative treatment (OMT), particularly techniques addressing thoracolumbar dysfunction, lymphatic flow, and abdominal wall mobility, may support recovery and reduce recurrence risk as an adjunct to standard care.

Outcomes

Medical/Surgical Observation was done for this patient due to the omental infarction. No surgery was scheduled as the hospital stay less than 48 hours in the hospital for adequate diagnosis, stabilization, and therapeutic interventions.

Follow-up

Patient was readmitted for abdominal pain, decreased bowel movements, and not passing gas. CT demonstrated small bowel obstruction with transition point in the left base mid abdomen, proximal to the small bowel anastomosis of the bypass. Resolved without surgical intervention.

CONCLUSION

- FOI should remain in the differential diagnosis for acute RLQ pain in patients with extensive abdominal history including bariatric surgery.
- CT imaging is essential for accurate diagnosis and prevention of unnecessary surgery.
- Conservative management is effective in stable patients.
- Osteopathic evaluation may provide adjunctive benefit by addressing autonomic and fascial contributions to abdominal pathology, thus preventing recurrent ER visits and hospital admissions

Acknowledgement

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REFERENCES

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