Epiplolic Appendagitis

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Mr M

This is a 43 yo man, who presents to the ER with a left lower quadrant pain that has lasted for 1 day. There are no changes in bowel habits, no nausea or vomiting.

On Physical exam he is afebrile, with mild tachycardia and tenderness in LLQ.

Abnormal Lab: WBC 12.3, N 70.8%
Axial (c+) Pelvic CT

- Sacrum
- Ilium
- Rectus abdominus muscles
- Iliacus muscle
- Psoas Muscle
- Internal Iliac arteries
- External Iliac arteries
- Small Bowel
- Mesenterium
- Colon
Axial (c+) Pelvic CT

Inflammatory mass

Inflammatory mass
Axial (c+) Pelvic CT

- Inflammatory mass
- Enlarged lymph nodes
Coronal Abdominal CT

Film findings:
well defined focus of hypodense, fat tissue density with an enhancing rim and slight surrounding inflammatory changes.
Differential diagnosis for LLQ inflammatory mass

- Diverticulitis
- Segmental omental infarction
- Colon cancer
- Abscess
- Mesenteric adenitis
- Epiplioic appendagitis
Companion Pt 1: Diverticulitis on Axial CT

- Focal thickening of the colonic wall associated with pericolonic stranding and other multiple diverticula
- We saw no diverticulae in our patient
Companion Pt 2: Segmental Omental Infarction on Axial CT

- Non-enhancing heterogeneous density lesion with intervening areas of fat density and hyper attenuating streaks and without a hyperattenuating ring
- Right lower quadrant pain

http://www.mypacs.net/cases/OMENTAL-INFARCTION-232632.html
Companion Pt 3: Colon CA on Axial CT

- Solid soft-tissue mass, that narrows the lumen of the colon
- It can have a central necrosis that will cause a low attenuation, but this attenuation won’t reach the fat density
Companion Pt 4: Abscess on Axial CT

Fluid-filled complex mass, it has trabeculae inside it and sometimes an air-fluid level because the bacteria inside it produce gas
Companion Pt 5: Mesenteric Adenitis on Axial CT

- Disease of the pediatric population, younger than 15 years
- Enlarged mesenteric lymph nodes, generally more numerous, and widely distributed, not as a single lesion

http://www.mypacs.net/cases/MESENTERIC-ADENITIS-3223498.html
Radiologic Impression

Epiploic appendagitis with reactive mesenteric lymph nodes
Epiploic Appendages

- Outpouchings of subserosal fat
- Pedunculated (fingerlike) form and very narrow pedicle
- Along the entire colon
- Between 50-100, most in the transverse and sigmoid colon
- Average length 3 cm
- Supplied by one or two endarteries, drained by one tortuous vein that passes through the pedicle
- Protective cushion during peristalsis
- Fat storage
Companion Pt 6: Epiploic Appendages in a Pt with ascitis on Pelvic CT
Epiploic Appendagitis

• Benign and self-limited condition. Complete resolution in 3-14 days without surgical intervention
• Occurs secondary to torsion or spontaneous venous thrombosis of a draining vein in the Epiploic appendages
• Between the second and fifth decades of life
• Men = Women
• Obesity
Pathophysiology

- A mobile appendage and long appendage with a large pedicle is at risk to torsion during changes in posture or heavy exercise
- Gradual torsion $\rightarrow$ Chronic inflammation $\rightarrow$ Asymptomatic
- Acute torsion $\rightarrow$ Symptoms
- Any segment of the colon
- Most common sites: Caecum and sigmoid colon
Clinical symptoms

- Acute abdominal pain → Acute abdomen
- Localized pain and tenderness
- No systemic compromise
- No changes in bowel habit, no nausea or vomiting
- Afebrile
- Rest of exam is unremarkable
- Lab findings: CBC and ES normal

LOCALIZED ABDOMINAL PAIN WITHOUT ASSOCIATED LEUKOCYTOSIS OR FEVER
Our patient: Epiplioic appendagitis on pelvic CT

- Oval-shaped, fat density mass adjacent to the colon (inflamed appendage)
- With thickened peritoneal lining (enhancing rim) - “ring sign”
- And periappendageal fat stranding (inflammatory changes)
- A central dot can also be seen (thrombosed vessel)
Companion Pt 7: Acute EA on CT

- Acute Epiploic appendagitis
- Look at the hyperattenuating center
- This is a thrombosed draining appendageal vein
- Could also be fibrotic tissue or hemorrhage
Companion Pt 8: Characteristic appearance of EA on US

Small hyperechoic oval mass (fat) and hypoechoic surrounding (inflamed tissue) next to the colon wall

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Treatment

- Self limited
- Oral anti-inflammatory medications (Ibuprofen + acetaminophen) and occasionally a short course of opiates
- No hospitalization or antibiotics required
- Rarely Surgery: Ligation and excision
Complications

• Rare
• Aseptic necrosis
• Adhession to abdominal wall: Intestinal obstruction or Intussusception
• Abscess
• Seek medical attention if symptoms worsen after two days: high fever, pain, nausea, vomiting, or inability to tolerate an oral diet
References

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