AMSER Case of the Month: August 2023

48 yr old with LLQ abdominal pain and fatigue

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Patient Presentation

HPI:
48-year-old male with history of hypertension presents with concerns of:
• One and a half weeks of increasing fatigue, weakness, night sweats, decreased appetite and 10 pound weight loss
• One day of left lower quadrant abdominal pain, described as cramping, sharp, and unchanged with food

Physical exam:
• Tenderness noted over periumbilical region and left lower quadrant of abdomen with palpation; no guarding or rebound tenderness.
Case Presentation

Pertinent Labs

- CBC: Elevated WBC; Low HGB, HCT, PLT, RBC
- CMP: Elevated BUN, AST, ALT, ALP; Low protein
- Elevated Lipase
- Elevated ESR, CRP
- VBG: elevated PO2, calcium, lactate; low sodium
What Imaging Should We Order?
Applicable ACR Appropriateness Criteria

This imaging modality was ordered by the ER physician
Findings (unlabeled)
Findings labeled

Key Findings

1. Within the base of the cecum involving the terminal ileum, there is a heterogeneously hyperdense mass with associated pathologic right lower quadrant mesenteric adenopathy.

1. The appendix is markedly enlarged up to 2.1 cm and hyperenhancing. Periappendiceal inflammatory changes with small to moderate volume free fluid extending into the pelvis.
Findings (unlabeled)
Findings labeled

Key Findings

Peritoneal thickening, favored to represent peritoneal carcinomatosis. Multiple enlarged mesenteric and retroperitoneal lymph nodes were identified.
Findings (unlabeled)
Findings labeled

Portacaval Lymph Node - 1.7cm
Aortocaval Lymph Node - 1.5cm
Ileocolic Lymph Node - 2.8cm

Multiple enlarged mesenteric and retroperitoneal lymph nodes were identified
Key Finding:

Multiple rounded hypoenhancing masses, compatible with hepatic metastatic disease.
Follow up PET / CT Findings

- Terminal ileal mass
- Liver metastases
- Metastatic mesenteric lymph nodes and multiple hypermetabolic peritoneal and omental implants
Diagnosis

Differential
- Ileal Adenocarcinoma
- Gastrointestinal Neuroendocrine Tumor
- Ileal Burkitt Lymphoma

Liver biopsy was performed and frozen section was positive for malignant neoplasm:
- Frequent mitotic figures were found
- Immunostains show the lymphoma cells to be positive for nearly 100%
- **Burkitt Lymphoma is the final diagnosis**
- Appendicitis was due to obstruction from ileocecal mass
Case Discussion

Ileal Burkitt’s Lymphoma

- **Epidemiology:** 1% - 5% of all non-Hodgkin lymphoma cases
- **Who:** 3-4:1 male to female ratio, with a higher incidence in Caucasian individuals (2)
- **Presentation:** Abdominal or jaw pain, melena, nausea, acute abdomen, rapidly enlarged cervical lymph nodes, abdominal masses, and ascites
- **Where:** Terminal ileum
Case Discussion

• Burkitt’s lymphoma is a highly aggressive form of cancer with frequent metastases to the bone marrow, brain, and spinal cord
• Patients may thus present with non-abdominal symptoms as their chief concern
• Despite being rare, Burkitt’s lymphoma warrants suspicion and work-up because of its rapid growth and responsiveness to early tumor cytoreduction and intense chemotherapy (5-year survival rate of 80%) (3)
Patient Outcome

- Admitted and started on chemotherapy course for Burkitt’s lymphoma
  - Recent PET results show significant response to treatment with interval resolution of intra-abdominal, cecal, and hepatic metabolically avid disease as described
  - No definite new lesions identified
- Non-operative antibiotic course for appendicitis
References:

