Just a Hernia: Sister Mary Joseph Nodule as Manifestation of Metastatic Pancreatic Adenocarcinoma

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Introduction

Sister Mary Joseph Nodule (SMJN) is a physical exam finding which was coined in 1949 by surgeon Sir Hamilton Bailey at St Mary's Hospital in Rochester, MN. It was named after Sister Mary Joseph who was the superintendent nurse who first observe that this finding was associated with intraabdominal malignancy[1].

History of Present Illness

54 y.o. African American female with chief complaint of diffuse abdominal pain

- Associated with 1 week of nausea, loose stools, loss of appetite, and 8 lb weight loss.
- Ulcerated umbilical mass appeared 4 days before presentation
- PCP visit week prior and prescribed Augmentin and abdominal ultrasound
- Routine age appropriate cancer screenings including colonoscopy, pap smear, and mammogram up to date and normal

- Medical and surgical history:
  - Interstitial cystitis, Uterine myomectomy, miscarriage, c section, appendectomy
- Family History:
  - Grandmother with colon cancer at age 50
- Physical Exam:
  - No jaundice. LLQ tenderness and 2 cm ulcerated umbilical mass which is tender (See Figure 1). Normal bowel sounds x 4

Hospital Course

- CT abdomen pelvis obtained (Figure 2).
- Labs:
  - Alkaline Phosphatase 138, GGT 164, CEA 7.3, CA-125: 726.5, CA 19-9: 3.5
- Umbilical mass biopsy showed metastatic pancreatic adenocarcinoma
  - Positive for OC 125, Muc 5 AC, S100 p, CDX 2.
- Oncology consulted and started on trial therapy with Gemfibrozil, Abraxane, and Cisplatin as outpatient.
- Several readmissions for SBO and intractable abdominal pain
  - Venting G tube placed.
- Progression of disease after 1 round of chemotherapy.
- Placed on hospice and passed away about 2 months after initial diagnosis.

Imaging

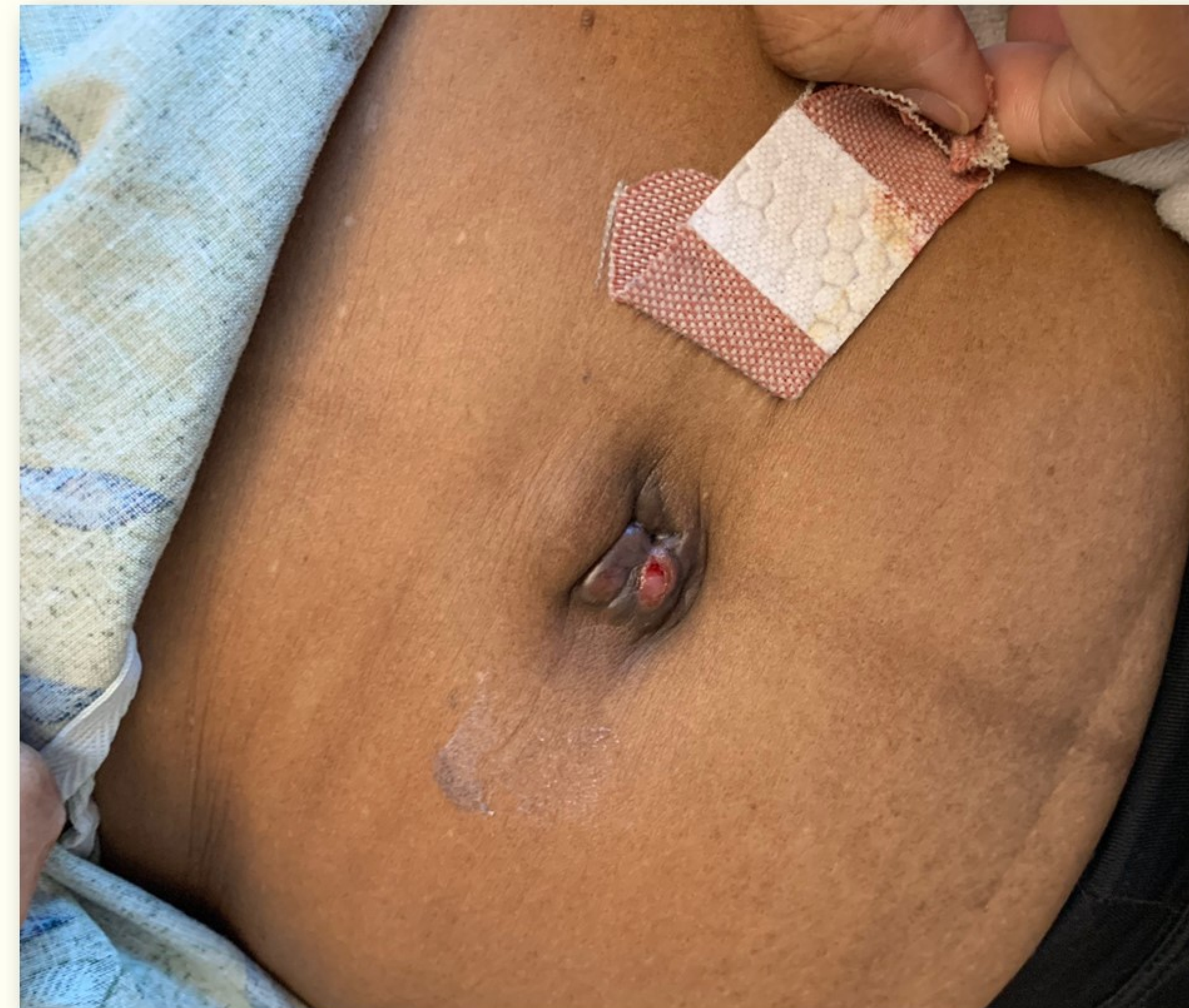

Figure 1: Umbilical Lesion

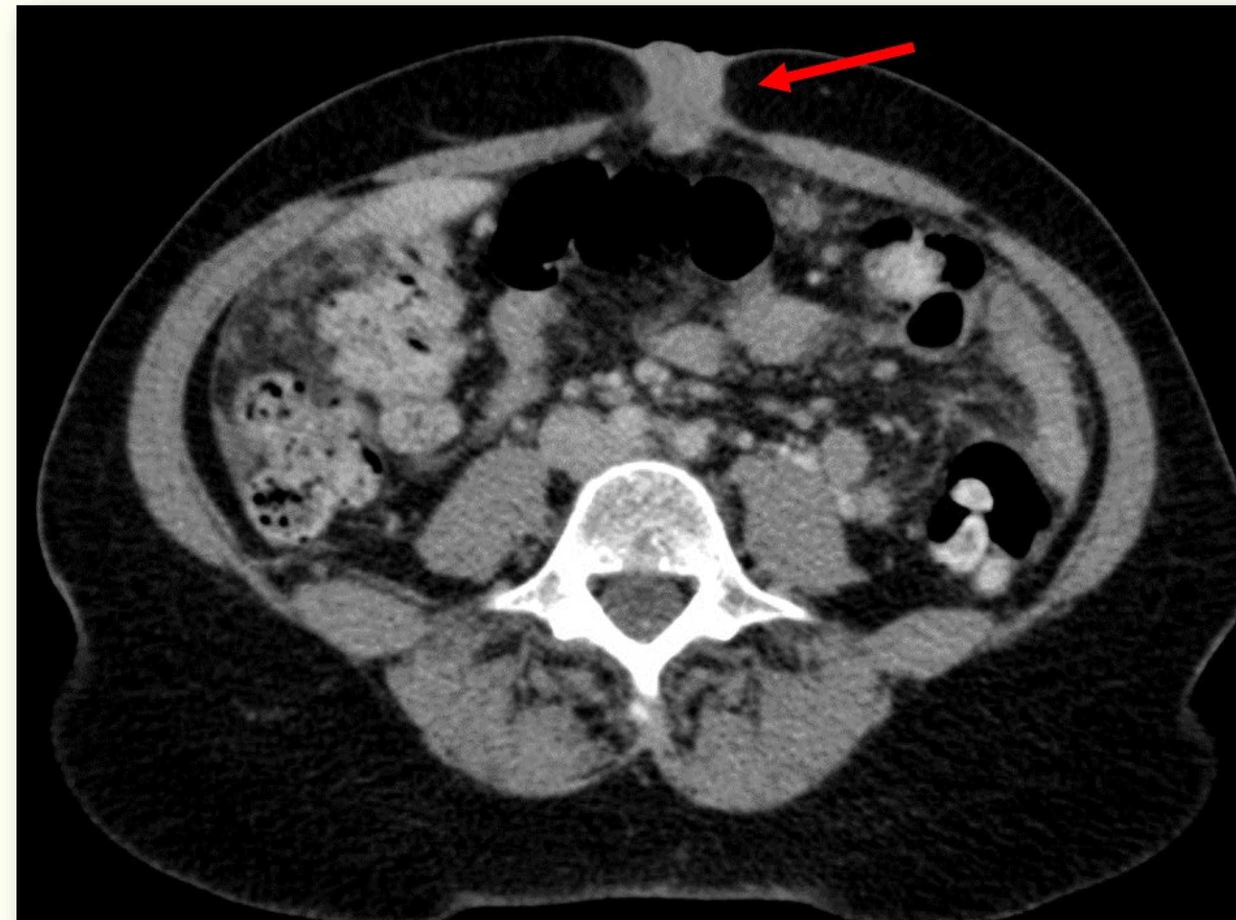

Figure 2: CT Abd/Pelvis with contrast: Multiple cyst-like fluid collections throughout the abdomen including in a rectal perirectal region, omental location, within the liver and right lower lung

MR abdomen (not pictured): MR abdomen showed 25 mm lateral segment left hepatic lobe mass, a 26 mm mass in the lesser sac adjacent to the gastric antrum, and a dominant 45 x 43 mm heterogeneously enhancing mass exophytic to the pancreatic tail

Discussion

This patient presented with non-specific abdominal pain, nausea, weight loss, in addition to an ulcerated umbilical mass which was thought to be a cellulitis. Unfortunately this mass was actually a cutaneous manifestation of Stage IV Metastatic Pancreatic Adenocarcinoma.

A Sister Mary Joseph Nodule is uncommon and presents in only 1-3% of abdominal/ pelvic malignancies. Of those with SMJN 35-65% are associated with GI cancer and 12-35% associated with GU cancer. It is always a manifestation of metastatic cancer[2,3].

Symptomatology of pancreatic cancer is often nonspecific and commonly includes: weakness, nausea, weight loss, loss of appetite, abdominal pain, and nausea. A mass involving the tail of the pancreas is often absent of signs classically seen with tumors at the head of the pancreas such as jaundice, steatorrhea and Courvoisier's sign[4].

5- year survival rate in stage IV pancreatic cancer is 3% and it is the 4th leading cause of cancer death in the US. 53% of all pancreatic cancer presents as stage IV. 5 year survival rates for Stage 0 and I are 34%, for Stage II, III it is 12%[6]. Incidence of pancreatic cancer in African-Americans is 15% which is higher than in other ethnicities[5].

This case illustrates the importance to maintain a high clinical suspicion of chronic non-specific symptoms as they may be signs of malignancy. Unfortunately, as in this case, a Sister Mary Joseph Nodule is indicative of metastatic disease which is associated with poor prognosis and limited treatment options.

References

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