

Introduction

This case describes a patient presenting with abdominal pain, weight loss, and a Sister Mary Joseph Nodule who was diagnosed with gastric cancer. Our case highlights the need for a physical exam and emphasizes the importance of this lost skill.

Case Presentation

A 62-year-old male with a medical history of hypertension, diabetes, that presented to gastroenterology clinic citing unintentional weight loss. The patient reported early satiety, abdominal pain, constipation, and a 37-lb unintentional weight loss in the past 6 months. The patient also noted pain and a burning sensation at the umbilicus. Physical exam revealed a distended abdomen, with generalized abdominal tenderness and a firm umbilical nodule with dark discoloration, noted to be a 'Sister Mary Joseph' nodule (Figure 1). Laboratory investigations revealed anemia. Tumor markers were notable for a normal AFP and CEA, but elevated CA 19-9 of 346. Given concern for malignancy, the patient underwent CT abdomen that revealed gastric outlet thickening with mild irregularity of gastric antrum and multiple surrounding lymph nodes. He underwent endoscopic evaluation that revealed a large fungating and ulcerated circumferential mass in the gastric antrum, as well as a large infiltrative mass in the duodenal bulb (Figure 2-3). Biopsies of the antral mass revealed differentiated adenocarcinoma. The patient was evaluated by general surgery and oncology and is currently undergoing cycle 3 out of 5 of neoadjuvant chemotherapy.

Physical Exam Findings

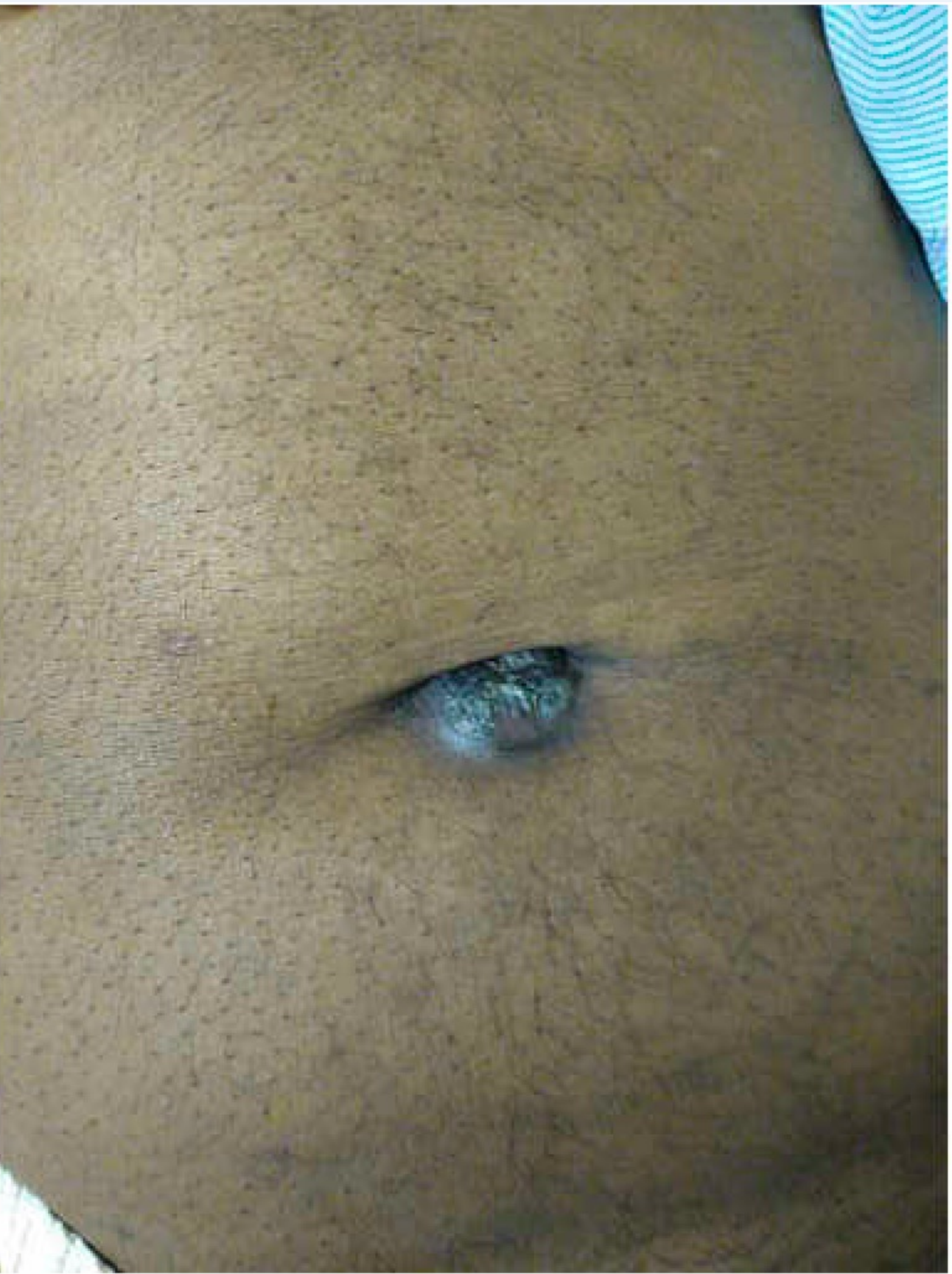


Figure 1. Firm Umbilical Nodule (Sister Mary Joseph Nodule)

Colonoscopic Findings

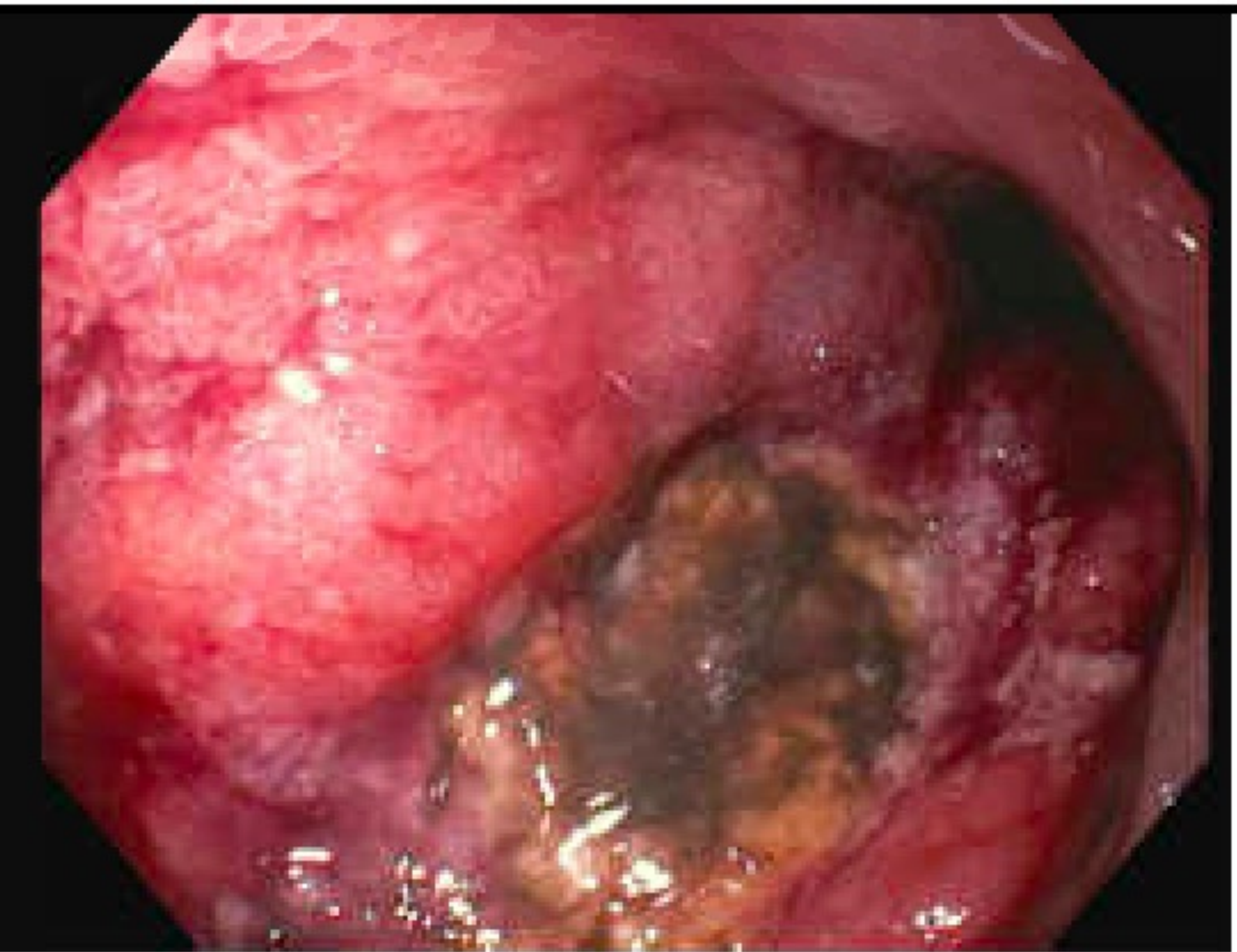


Figure 2. Pylorus Mass

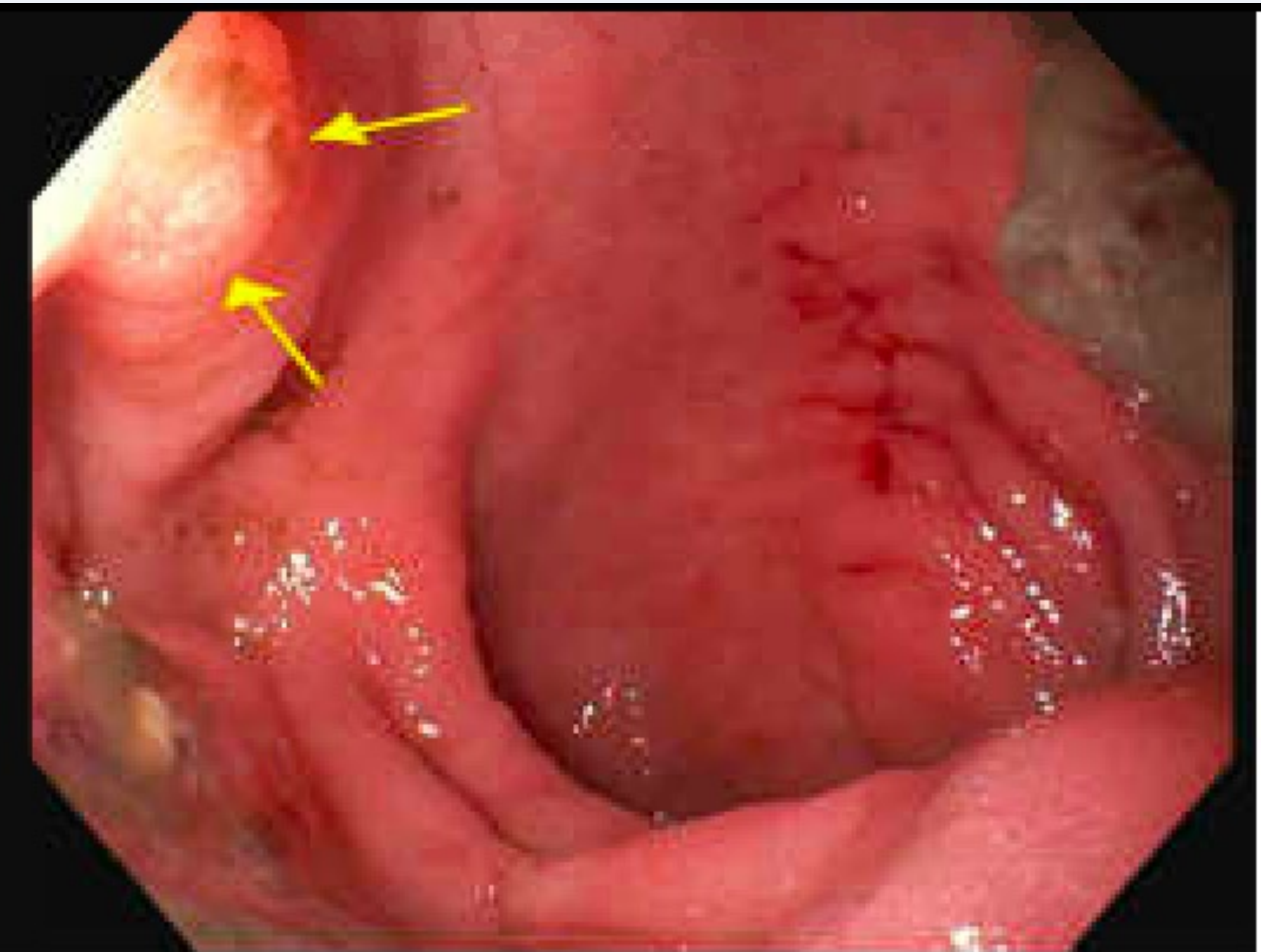


Figure 3. Duodenal Bulb Mass

Discussion

Gastric cancer (GAC) is the second most common cancer world-wide, and third most common gastrointestinal malignancy in the US after colorectal and pancreatic cancer. It poses substantial mortality despite advances in surgery and use of adjuvant therapy. GAC is highly treatable in its early stages; however advanced stages have a medical survival of just 9-10 months. The importance of early detection is key to prolong survival.

In our patient's presentation, his history of present illness pointed towards a gastrointestinal malignancy and his physical examination revealed an ominous sign known as the Sister Mary Joseph Nodule. This term was coined in the 1940s, named after Sister Mary Joseph who, was a surgical assistant and noted the association between umbilical nodules and intrabdominal malignancy. This physical exam finding represents a sign of malignancy, with most patients having metastatic adenocarcinoma, usually from stomach, large bowel, ovary or pancreas. The average survival after discovery is around 10-11 months.

Conclusions

While many cases require laboratory and imaging studies to reach a diagnosis, many studies have consistently revealed that a comprehensive history taking and physical examination serve as the foundation in arriving to correct diagnosis, whereas laboratory tests and imaging studies play a minor role.

The physical exam is an invaluable tool for clinicians, yet its role is often circumvented by the increasing availability of laboratory/imaging studies and its accuracy is questioned when compared to newer technologies. Efforts to develop and improve our core bedside skills and reaffirm its place within our arsenal of tools should be of the utmost importance.

References

- Ajani, J. A., Lee, J., Sano, T., Janjigian, Y. Y., Fan, D., & Song, S. (2017). Gastric Adenocarcinoma. *Nature Review Disease Primers*.
- Dicken, B. J., Bigam, D. L., Cass, C., Mackey, J., Joy, A., & Hamilton, S. M. (2005). Gastric Adenocarcinoma Review and Considerations for Future Directions. *Annals of Surgery*, 27-39.
- Feddock, C. A. (2007). The Lost Art of Clinical Skills. *The Association of Professors of Medicine*, 374-378.
- McGee, S. (2018). Inspection of the Abdomen. In S. McGee, *Evidence-Based Physical Diagnosis (Fourth Edition)* (pp. 429-432).
- Peterson, M. C., Holbrook, J. H., Von Hales, D., Smith, N. L., & Staker, L. V. (1992). Contributions of the history, physical examination, and laboratory investigation in making medical diagnoses. *Western Journal of Medicine*, 163-165.