CLINICAL VIGNETTE

Accessory Spleen: A Convoluted Path to Diagnose a Common Condition

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Introduction

An important role of the primary care provider is to provide continuity of care. Patients often present to their primary care provider first with new symptoms or to discuss abnormal results. Patients who identify a primary provider have reduced use of the emergency department.[1,2] We present a patient who did not have a clearly designated provider to follow up with after an incidental finding on a scan obtained in the emergency department.

Case Presentation

A 37-year-old woman presented to the emergency department with sharp, pleuritic chest pain over the left chest wall. She had no history of similar pain, was not on hormonal contraception, had no leg swelling, and no personal history of venous thromboembolism. Past medical history included asthma, anxiety, depression, post-traumatic stress disorder, and gastroesophageal reflux disorder. Surgical history included only a hysteroscopic polypectomy. Family history included pancreatic cancer in her maternal grandfather and stomach cancer in her maternal great-grandmother. She is a former smoker and uses alcohol once or twice a month. Laboratory studies obtained in the ED included WBC 11.77, hemoglobin 11, MCV 75.7, platelets 304, creatinine 0.97, troponin <3, and D-dimer 0.67 ug/mL-FEU. A CTA chest was obtained to follow up the positive D-dimer result which had no evidence of pulmonary embolism, but did note a 3.2 x 2.3 x 1.7 cm left subdiaphragmatic mass along the gastric fundus. The radiology impression suggested that this may represent a gastrointestinal stromal tumor or other neoplasm. She was discharged from the ED with a referral for primary care follow up, and the followed day presented as a walk-in patient. The covering physician ordered a CT abdomen/pelvis to follow up, which was read as a 3.2 x 1.8 cm ovoid structure within the left upper quadrant between the fundus of the stomach and the superior margin of the spleen. The radiologist report noted this was favored to represent splenic tissue rather than a gastric mass, and suggested liver spleen imaging or MRI abdomen with contrast to correlate.

The patient returned to the following day to discuss the CT results. The ED physician note states he consulted with a radiologist and upon their recommendation schooled an outpatient FDG-PET scan.

One week after her initial ED visit, she had a video visit with a different covering provider from the primary care clinic. In that appointment, she recounted being told she might have cancer but was unclear on the plan to follow up. Later that day she had the PET scan. The report read “an unchanged oval soft tissue mass between the superior margin of the spleen and the gastric fundus with moderate FDG activity”. The radiologist noted the differential included accessory splenic tissue and recommended a liver spleen scan or heat-damaged RBC scan for further evaluation.

Two days after the PET scan (Day 9) she had a phone call from her new primary care provider to review the results. The primary care provider contacted the nuclear medicine fellow to discuss the options for additional imaging, as both studies are intended to define splenic tissue and help make a diagnosis of accessory spleen. The study was ordered as a liver spleen scan with a note added to request inclusion of heat-damaged RBC scan.

Six days later, the liver spleen scan which noted tracer uptake in the soft tissue density between the stomach and spleen, favoring splenule or spleen tissue. A call to discuss results with the patient went to voicemail.

The following day she saw a same day provider, who repeated laboratory studies and referred her to General Surgery to discuss possible biopsy of the mass.

Three weeks later she saw her new primary care provider and reviewed the full sequence of her imaging and blood test results. She was reassured that the liver spleen scan was confident in identifying the mass as accessory splenic tissue rather than malignancy. She did not pursue biopsy of the mass.

Discussion

While Ms. R eventually met her new primary care provider in person approximately a month after her initial ER visit, in the interim she met with four other physicians in the ER, same day clinic, and two providers covering the panel during a transition period. There was significant fragmentation in these one-time encounters, with very little continuity. It was difficult to provide consistent interpretation of findings and coordinate follow up studies. These events occurred in a period of primary care provider turnover, which has been associated with worsened patient experiences of care. [3] Higher continuity is associated with lower healthcare costs.[4] The patient reported frustration

with feeling like there was no clear follow up plan from her initial ER visit.

A diagnosis of accessory spleen was eventually reached and communicated following the liver and spleen scan. The ability to discuss her imaging with radiology colleagues determined this was the appropriate study. Studies report high levels of satisfaction with programs that allow primary care providers to consult radiologists.[5,6] Though the discussion was not through a formalized mechanism such as an eConsult, it was crucial to facilitate appropriate counseling of the patient when reviewing the imaging results.

Accessory spleen was not on the initial differential for her abdominal mass, but is an important entity to consider given its prevalence and potential to masquerade as other diseases. It is estimated that 11.2% of healthy patients have an accessory spleen,[7] and while this tissue is commonly found adjacent to the spleen it can occur at other sites in the abdomen. There are reports of accessory splenic tissue being mistaken for pheochromocytoma,[8] an intrapancreatic tumor,[9,10] and a gastric tumor causing gastrointestinal bleeding.[11] For patients with ITP, accessory splenic tissue can also lead to treatment failure following splenectomy[12] if the accessory tissue is not identified and removed. Surgical removal of the accessory spleen is not typically necessary unless the patient has evidence of torsion with nausea and flank pain.[13]

This patient's accessory spleen was found in a common location between the spleen and stomach. Earlier consideration of this diagnosis may have provided reassurance that the incidental mass was unlikely to be malignant.

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