Abdominal Pain and Increased CA19-9

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CASE DESCRIPTION

A 32-year-old man with an unremarkable medical history presented to the ambulatory clinic with complaints of nonlocalized abdominal pain. The results of a physical examination were unremarkable. The results obtained from liver, pancreatic, and renal testing were within the reference intervals, and the results of both a fecal occult blood test and an investigation for parasites in the stool were negative. Laboratory investigations also revealed a plasma carbohydrate antigen 19-9 (CA19-9) concentration of 3103 IU/mL (reference interval, 2–40 IU/mL). After this finding, abdominal ultrasonography and nuclear magnetic resonance imaging evaluations were made.

Fig. 1. Imaging study showing the splenic cyst (arrow).
Questions

1. Is CA19–9 increased only in malignancy?
2. What nonmalignant conditions can give rise to increased plasma CA19–9?

The answers are below.

Answers

CA19–9 can be increased in malignant and nonmalignant disease. Nonmalignant causes include biliary tract obstruction, cholangitis, inflammatory bowel disease, acute or chronic pancreatitis, cirrhosis, and cystic fibrosis. Imaging (Fig. 1) and histologic findings were consistent with a giant benign epidermoid splenic cyst (13.5 cm in diameter). One month after total splenectomy, the CA19–9 concentration was within the reference interval. Owing to its low diagnostic specificity (1), the measurement of CA19–9 is suggested only for the follow-up of known gastrointestinal, biliary, or pancreatic cancers (2, 3); however, splenic cyst is a rare benign cause of CA19–9 increase (4, 5) that should not be overlooked.

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References