JNP

Upper Back Pain in a Patient 9 Weeks After Laparoscopic Roux-en-Y Gastric Bypass

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Patients who have undergone bariatric surgery can be a diagnostic challenge to primary care providers. The physiologic changes that result after bariatric surgery can make it difficult to determine whether or not symptoms are related to such changes. In addition, common treatment modalities are not always appropriate for those patients who have had gastric bypass surgery. An understanding of the common complications that may occur any time after bariatric surgery, careful history-taking, a complete physical exam, and appropriate diagnostics are essential for optimal treatment of these patients in the primary care setting.

CASE PRESENTATION

A 36-year-old Caucasian woman was seen in a primary care clinic by a nurse practitioner (NP) for follow-up after an emergency department visit for right flank pain 10 days earlier. Two and a half weeks before the encounter with the NP, the patient had onset of right-sided flank pain that became progressively worse. At the time she presented to the emergency department, she was also having foul-smelling, dark urine, generalized fatigue, dizziness, and nausea. Her pain was worse with movement and also with deep breathing. She had tried a muscle relaxant and heat without relief of the pain. In the emergency department, she was treated for urinary tract infection and pyelonephritis with rocephin and fluids.

After evaluation and treatment in the emergency department, the patient's flank pain and urine odor improved. When the NP saw the patient she was continuing to take the 14-day course of bactrim oral antibiotics prescribed for pyelonephritis in the emergency department. At the time of presentation to the NP, the patient reported a return of back pain, now located under her right shoulder blade. She denied urinary frequency, urgency, or foul odor. She denied fever or excessive fatigue, cough, chest pain, palpitations, or abdominal pain. She did have nausea. She described the pain as constant and that it was keeping her awake at night. She denied any association of pain with foods and she noted that she avoided high-fat/greasy foods due to recent gastric bypass surgery. In addition, she was unable to use ibuprofen for pain due to gastric bypass. She had tried acetaminophen, but it was not effective for her pain.

The patient had laparoscopic Roux-en-Y gastric bypass surgery 9 weeks before the encounter, without complications, and was continuing to lose weight. Other comorbid conditions included: anxiety; depression; type 2 diabetes mellitus; hyperlipidemia; hypothyroidism; and recurrent infections/abscesses of the skin. She regularly used the following medications for treatment of multiple chronic conditions: cyanocobalamin 1,000 μg/mL by injection; insulin glargine 100 units/mL by subcutaneous insulin pen; insulin lispro 100 units/mL by subcutaneous insulin pen; metformin 1,000 mg orally; multivitamin; omeprazole 20 mg orally; ondansetron 4 mg orally; pravastatin 40 mg orally; and sertraline 100 mg orally. She had no new medications other than the medications prescribed in the emergency department. The patient was a former tobacco smoker and denied alcohol or illicit drug use. She was sexually active with male partners and used condoms for contraceptive management. The patient's mother had undergone gastric bypass surgery several years ago. Her father was deceased, and had emphysema and alcohol abuse prior to his death. There was no family history of inflammatory bowel disease.

PHYSICAL EXAMINATION

The patient's vital signs were as follows: temperature 36°C; heart rate 67 beats/min; blood pressure 130/88 mm Hg; and weight 110 kg.

General

The patient appeared well developed and well nourished and in no acute distress. She made appropriate eye contact and thoughts were linear.

Her head was normocephalic and atraumatic. Chest was nontender and heart had normal rate, regular rhythm, and normal heart sounds. Her lung sounds were normal and she had normal breathing effort. Her abdomen was soft and non-distended. She did have general tenderness with palpation and avoided deep inspiration with palpation under the right costal margin. Her skin was warm and without rash.

The results of the laboratory studies ordered were reviewed during her visit to the emergency department 10 days earlier. The results of the laboratory studies ordered during her visit to the emergency department 10 days earlier were reviewed. She had a complete blood count, which was normal except for mean corpuscular hemoglobin of 27.3 pg and red cell distribution width of 15.1%. Her basic metabolic panel was normal except for blood urea nitrogen of 6 mg/dL. Hepatic function panel normal with the exception of conjugated bilirubin at 0.3 mg/dL. Urinalysis abnormalities included cloudy appearance, trace protein, 2.0 EU urobilinogen, positive nitrites, and moderate leukocytes. Microscopic urinalysis abnormalities showed heavy mucous and white blood cell count at 27. Lipase was normal. Serum qualitative human chorionic gonadotrophin was negative.

The imaging studies ordered as part of the emergency department evaluation were also reviewed. Chest X-ray posterior-anterior and lateral showed that lungs were clear, heart size and pulmonary vasculature were within normal limits, and there was no pleural effusion. Ultrasound of the right upper quadrant indicated increased echogenicity of the liver, compatible with mildly fatty status, but no focal lesions; gallbladder sludge, but no choledocholithiasis or ultrasound evidence of cholecystitis; and unremarkable right kidney, without hydronephrosis.

CASE STUDY QUESTIONS

1. What differential diagnoses should be considered in this case?
2. Are there any additional diagnostics that would be helpful in this case?
3. Based on the available information, what is the mostly likely diagnosis and why?

Think you know answer to these questions? Test yourself and the go to page e445 to read the answers