55-year-old Hispanic man with obesity presented to the emergency department with chest pain and shortness of breath for the past month which worsened in the last two days. He described the chest pain as intermittent, sharp, substernal, and non-radiating. It increased with exertion and was associated with shortness of breath. He denied other symptoms, including fevers, chills, abdominal pain, diarrhea, constipation, blood in urine, or stool. He had smoked cigarettes for the last 20 years, consumed alcohol rarely, and had not used recreational drugs. Regarding preventive care, he had never had a colonoscopy in the past. He was married and lived at home with his wife. Family history was negative for hypertension, diabetes, cardiac disease, or autoimmune disease.

The clinical evaluation of chest pain involves careful history-taking and physical exam, as causes for chest pain range from benign to life-threatening. This patient’s presentation of typical chest pain and longstanding history of tobacco use place him at a greater risk for having underlying coronary artery disease and therefore next steps should include EKG and cardiac enzymes.

In the ED, the patient was hemodynamically stable and was in no acute distress. His conjunctivae were normal, neck had a normal-sized thyroid, and no jugular venous distension. His cardiac exam revealed regular rate and rhythm, his skin was without pallor, lesions, or discoloration. His extremities showed no clubbing, cyanosis, or edema. He was neurologically intact, and his rectal exam revealed no blood in the stool. Initial troponin was 0.12, but EKG showed no new ischemic changes or prior infarcts. Labs were remarkable for Hgb 6.1 g/dL, Hct 23.8%, RBC 3.6 M/µL, MCV 66.1 fL, RDW 22.4%. He was transfused 2 units of packed red blood cells and transferred to the cardiac intensive care unit for further management.

A type II NSTEMI refers to ischemia due to either increased oxygen demand or decreased supply, and may be due to coronary vasospasm, coronary embolism, anemia, arrhythmia, hypertension, or hypotension. Treatment is aimed at treating the underlying cause. In this case, microcytic anemia is the likely cause. Anemia is defined as a reduction in hemoglobin concentration, hematocrit, or red blood cell count. Given the high RDW in this case, an iron panel should be obtained.

His iron level of 10, total iron binding capacity of 448, iron % saturation of 2, and ferritin of 3 were consistent with diagnosis of iron deficiency anemia (IDA).

In males in developed countries, digestive disorders tend to be the most common cause for IDA.

Patient underwent an EGD that showed an 8-mm polypoid lesion with ulcerated center in the mid-gastric body of greater curvature and ileal ulcerations without signs of bleeding. Pathology revealed chronic atrophic (autoimmune type) gastritis (AIG) with focal intestinal metaplasia and well differentiated neuroendocrine or carcinoid tumor. Antiparietal cell and intrinsic factor antibodies were both negative. Colonoscopy revealed grade II internal hemorrhoids.

Although it is often associated with pernicious (macrocytic) anemia, AIG can present with microcytic anemia, as a result of achlorhydria, which impairs iron absorption. Up to 27% of patients with IDA are diagnosed with AIG. In later stages, patients may develop severe cobalamin deficiency leading to neurological symptoms and atrophic glossitis. Approximately 5% of patients with AIG will develop a gastric carcinoid tumor.

A review of records showed that the patient had a hemoglobin of 12.7 and MCV of 106.9 two years prior during an overnight admission for evaluation of syncope. On this admission, folate level was normal but vitamin B12 was <109 (ref range 210-910) and TSH was 19.015. Although free T4 and antithyroid antibodies were not collected in this patient, in a person with an autoimmune-mediated disease process living in the United States with sufficient dietary iodine, autoimmune thyroiditis was most likely the cause of his elevated TSH. Fifteen percent of patients with autoimmune thyroid diseases have a concomitant autoimmune disease, most commonly AIG at 39% of cases.

The findings of AIG and autoimmune thyroiditis in this patient suggest an underlying polyglandular autoimmune syndrome (PAS) type...
IIIb. PAS was first described by Thomas Addison in the 19th century in patients noted to have adrenocortical failure and pernicious anemia. In 1980, Neufeld and Blizzard developed the first classification of PAS: Type I and II. PAS type III was later described which is further subclassified into IIIA, IIIB, and IIIC. PAS IIIB involves autoimmune thyroiditis and pernicious anemia or AIG.

The prevalence of PAS type III in Hispanic males is unclear. It is estimated that 5% of women in the world are affected with PAS type III compared to 1.5% of men. Hashimoto’s thyroiditis is most prevalent among white women. It may appear that Hispanic men are less likely to have PAS type III due to the low likelihood of developing autoimmune thyroid disease. However, based on research by Genta, Allen, and Rugge using a nationwide database of ~1 million people with upper endoscopy specimens in the United States, AIG was more than twice as common in subjects of Hispanic ancestry as in non-Hispanics and non-Asian Americans. AIG did not appear to correlate with the prevalence of H. pylori, indicating that autoimmune-mediated processes should be considered in Hispanic patients with atrophic gastritis despite the high prevalence of H. pylori in that population.

Our patient required three units of pRBCs transfused during hospitalization. He received IV B12 and iron supplementation. Transthoracic echocardiogram showed normal left ventricular function and no regional wall motion abnormalities. Five days after presentation, symptoms of chest pain and shortness of breath resolved and patient was discharged home with follow up with primary care and gastroenterology as an outpatient.

Our patient had a well differentiated G-cell tumor that was resected at endoscopy (<1cm) with no evidence of metastatic disease on imaging (Type 1). Gastric carcinoid tumors are rare (2-3% of all carcinoids) and are very rarely functioning with a good overall prognosis. A surveillance endoscopy was planned at time of discharge.

This case demonstrates late and dramatic presentation of PAS in a Hispanic middle-aged male. As such, PAS should be considered as a group of syndromes that occur beyond the population of young white women. As autoimmune diseases often coexist in an individual, it is important to consider secondary autoimmune processes in a patient with a known autoimmune condition presenting with new symptoms. Close follow up and vigilant surveillance is required for all patients with PAS.

References