An Alarming Outcome in Patients with Multiple Myeloma Under 40
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Multiple myeloma is characterized by a neoplastic proliferation of plasma cells producing a monoclonal immunoglobulin. The infrequency with which it is encountered in a population under the age of 40 makes the diagnosis a formidable challenge. A 38-year-old man presented to the emergency department for new onset of shortness of breath. EKG, CBC, and BMP were ordered, and showed tachycardia with left ventricular hypertrophy, and no ST-T depressions or elevations, cytopenias, and values consistent with an acute kidney injury. Troponins and BNP were noted to be significantly elevated. A clinical diagnosis of heart failure with reduced ejection fraction was made. He proceeded to have a cardiac catheterization done to determine if the cardiomyopathy was of an ischemic or nonischemic nature. Initial medical management was to bring the blood pressure, and heart rate down, as well as improve the systolic function of the heart. Despite this, his condition worsened, and a serum protein electrophoresis was ordered which demonstrated a nonspecific plasma cell dyscrasia. He was started on 40mg dexamethasone, and a bone marrow biopsy and fat pad biopsy were obtained to determine the specific dyscrasia. The patient remained in the hospital until his symptoms of shortness of breath were controlled, and he was stable medically.

This case illustrates how unlikely it is for a patient under 40 to have multiple myeloma, and discusses reports that show worse prognosis for younger patients with multiple myeloma when compared to those who are older. Although there are not many studies within this patient population, it is critical to discover different treatment options and better prognostic indicators specific to this age group to better manage them.