A 34- year old man with history of HIV presented to an outside hospital with right flank pain, nausea, and vomiting. A CT of the torso showed innumerable opacities throughout the lungs, some of which were cavitary, and superficial lesions overlying the lower pelvis and groin. His ECG showed anterolateral ST elevations with T wave inversions, inferior T wave inversions. The patient was then urgently transferred to our institution for further evaluation. While his ECG raised concern for acute STEMI, his age, lack of chest pain or dyspnea, and only mild troponin elevation despite more than 16 hours of ongoing discomfort argued against this. Given his HIV status, several months of constitutional symptoms, CT scan findings, an alternative diagnosis seemed more likely. We therefore did not pursue urgent cardiac catheterization and instead obtained a transthoracic echocardiogram. This study demonstrated increased left ventricular wall thickness and a low reflectance material within several regions of the myocardium, left atrium, and right ventricle, raising suspicion for myocardial infiltration of a malignant or infectious process. Bronchoscopy confirmed a diagnosis of pneumocystis pneumonia, an AIDS defining illness. The patient was planned for a cardiac MRI, however due to poor comprehension of the gravity of his illness and frustration with the hospitalization, he left against medical advice. Before leaving, he underwent biopsy of a right groin lesion. The biopsy confirmed the diagnosis of stage IV NK-T cell lymphoma, an aggressive, rare, EBV-associated malignancy. He agreed to return for urgent initiation of chemotherapy. After several cycles, he had dramatic improvement in his ECG and echocardiogram, which is highly suggestive of initial myocardial involvement of his lymphoma. He is currently planned for stem cell transplant. The unique presentation of this rare and aggressive lymphoma is only one of several case reports to note myocardial involvement of NK-T cell lymphoma. This case highlights not only the challenges of approaching a rare cause of a common ECG finding, but also the complexity of caring for a patient with low health literacy.