Uncommon Presentation of Burkitt Lymphoma

A 14-year-old boy with no prior medical problems presented to the emergency department with a two-week history of bloody diarrhea, decreased appetite, reflux, vomiting, abdominal fullness, and shoulder pain. Computed tomography (CT) revealed a large right abdominal mass with bulky nodular soft tissue anteriorly (A). He was admitted for workup of this presumed primary gastrointestinal malignancy.

PET/MRI (positron emission tomography/MRI) was performed and demonstrated substantial avid disease involving the chest, abdomen, and pelvis (B). Within the chest, pleural-based nodular and plaque-like masses with marked FDG (fludeoxyglucose F 18) uptake were seen bilaterally. Additionally, FDG avid nodular masses were in the bilateral parasternal and cardiophrenic regions (C). Large volume bilateral pleural effusions were presumed malignant. Within the abdomen and pelvis, a large bulky heterogeneously enhancing FDG avid mass in the right lower quadrant was identified. In addition to the dominant mass, there was bulky nodular thickening of the diaphragm, peritoneal surfaces, omentum, and mesentery with FDG avidity (B). Moderate volume abdominal ascites was presumed malignant.

Biopsy established a pathological diagnosis of Burkitt lymphoma. Carcinomatosis is typically associated with a primary gastrointestinal or ovarian malignancy. Other rarer differential considerations include gastrointestinal stromal tumor (GIST), granulomatous infections, and lymphoma as in our case. The role of PET/MRI in the setting of pediatric lymphoma has been shown to be comparable to PET/CT in detection, classification, and staging of disease burden. The potential for significant radiation dose savings makes this an interesting pediatric application of this emerging imaging modality.

REFERENCES