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Primary Diffuse Large B-cell Lymphoma of the Cecum

Introduction: The GI tract is the predominant site of secondary extra-nodal non-Hodgkin lymphoma (NHL). Primary lymphomas of the GI tract are rare, accounting for only 1-4% of malignancies arising in the stomach, small intestine, or colon. Primary colorectal lymphoma is even more uncommon, accounting for only 0.3% of large intestinal malignancies and 3% of GI lymphomas. Older adults (i.e. > 60) tend to have a worse prognosis than younger patients with DLBCL, most likely due to increased number of comorbid conditions, lower tolerance to treatment, and inadequate therapy regimens. The cardiotoxic effects of doxorubicin is a major treatment consideration in patients with underlying cardiac disease when administering R-CHOP chemotherapy, in which there is limited data available from small trials that can be used to guide both prevention and management of cardiotoxicity.

Methods: Review of Electronic Health Records and literature review

Results: A 73-year-old male with underlying ischemic heart disease and history of renal cell carcinoma presented with persistent productive cough and shortness of breath. A chest CT found new noncalcified nodules in both lungs, and further PET scan imaging revealed circumferential cecal colonic wall thickening with hypermetabolic activity, in addition to the bilateral metabolic pulmonary nodules. His last colonoscopy had been 3 years prior with only finding of benign polyps. CT-guided biopsy of a pulmonary nodule showed neoplastic cells positive for CD45, CD20, PAX5, CD10 and BCL6, and negative for SOX11; the Ki-67 index was 75-80%. The patient then underwent a colonoscopy which found an infiltrative, ulcerated and fungating 5 cm mass with stigmata of recent bleeding of malignant appearance in the cecum, which caused a partial obstruction [Figure 1]. Cold forceps biopsies were performed in which neoplastic cells were positive for CD20, CD10, BCL6, and MYC (50%), and negative for SOX11, CD23, BCL2, and EBER; Ki-67 index was > 90%. Fluorescence in-situ hybridization (FISH) studies for BCL2, BCL6, and MYC were negative for rearrangement, which were performed to rule-out double-hit lymphoma. The patient was definitively diagnosed with high-grade diffuse large B-cell lymphoma (DLBCL) with germinal center phenotype of colonic origin with metastasis to the lungs. The patient began treatment with R-CHOP-21 chemotherapy, and after the first two rounds of treatment, PET CT revealed significantly decreased size and metabolic activity of cecal mass with max SUV in the cecum measuring 8.7, which was previously 26.2 pre-treatment. He has tolerated the R-CHOP relatively well with only one episode of angina-type symptoms.

Conclusions: This case highlights the treatment considerations for primary colorectal DLBCL in an older patient with underlying ischemic heart disease. Due to the rarity and severity of primary colorectal lymphoma, there is scarce literature regarding the outcome of chemotherapy treatment options, especially in patients with underlying risk factors.