Post-Transplant lymphoproliferative disorder presenting as iron deficiency anemia: A Case Report

Marcella Pimpinelli[1], Peter Dellatore[2], Abhishek Bhurwal[2], Mahmoud Ali[3], Anish Vinit Patel[2]
Department of Internal Medicine, Rutgers RWJ University Hospital,NJ[1] ; Department of Gastroenterology and Hepatology, Rutgers RWJ University Hospital, NJ[2], Department of Pathology and Laboratory Medicine, Rutgers RWJ University Hospital, NJ[3]

RUTGERS Robert Wood Johnson Medical School

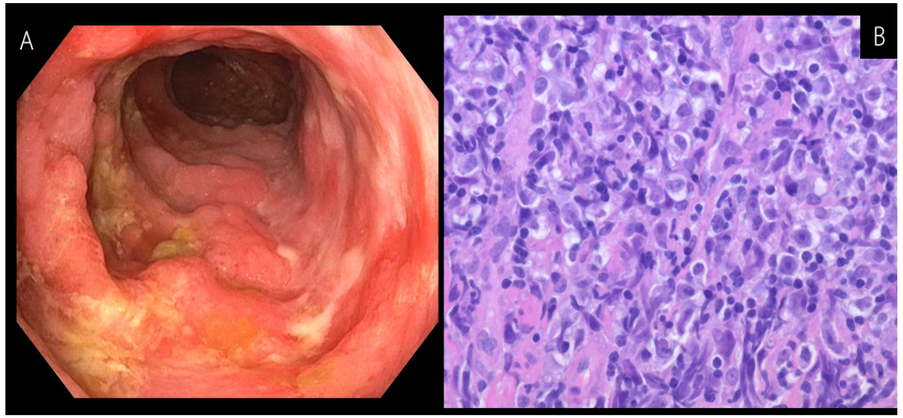
Case Diagnosis

- Post-Transplant Lymphoproliferative Disease (PTLD) is a rare complication of transplant recipients on immunosuppression with a highly variable presentation.
- Results from uncontrolled lymphocyte overgrowth, ranging from benign findings to potentially deadly lymphoma.
- The incidence ranges from 2-20%.
- More frequent in solid organ transplant recipients compared to stem cell transplant recipients.
- Most cases arise in the setting of donor EBV seropositivity (seen in 60-85% of cases).
- Other risk factors include ongoing immunosuppression, duration of immunosuppression, age (< 10 and > 60 years) and race (higher incidence in white patients).

Case Presentation

- A 29-year-old male with past medical history of Type 2 Diabetes, congenital solitary kidney, Focal Segmental Glomerular Sclerosis and deceased donor renal transplant 13 years ago on chronic immunosuppression, presented with nausea, vomiting, fatigue, and recent 10-pound unintentional weight loss.
- His exam was notable only for conjunctival pallor.
- Labs revealed WBC 10.8 (15% lymphocytes), anemia (Hgb of 5.7), thrombocytosis (platelets 1154), acute renal failure (Cr 1.5), positive FOBT.
- A CT A/P revealed necrotic mesenteric lymph nodes and thickened small bowel loops in the left hemiabdomen.
- Due to anemia and positive FOBT, he underwent an esophagogastroduodenoscopy and colonoscopy.

Case Presentation (continued)



(Fig. 1A) ulcerated lesion with nodular mucosa in the terminal ileum (Fig. 1B) histology slide showing monomorphic PTLD Diffuse Large B Cell Lymphoma (DLBCL)

- Colonoscopy revealed a mass-like ulcerated lesion in the terminal ileum with nodular appearing mucosa. Biopsy revealed monomorphic PTLD Diffuse Large B Cell Lymphoma (DLBCL). EBV and CMV were negative.
- He was treated with weekly Rituximab/Ruxience biosimilar 375mg/m2 x 4 doses and shortly thereafter with CHOP chemotherapy (cyclophosphamide, doxorubicin, vincristine, and prednisone).
- Surveillance imaging showed increased size of lymph nodes. He was re-admitted again 7 months after his initial diagnosis for sepsis and failure to thrive. Further CHOP therapy was held due to diminished nutritional and performance status. The patient was placed on home hospice and died 3 months later.

Discussion

- Transplant recipients are vulnerable to PTLD, a serious complication resulting from uncontrolled B cell proliferation due to diminished immunologic surveillance resulting from post-transplant immunosuppression.
- Greater than 85% of PTLD cases are observed in the first year post- transplant.
- EBV-negative PTLDs occur later than EBV-positive cases and present with a more aggressive clinical course.
- Most patients are treated with Rituximab and/or CHOP chemotherapy, however, patients with solid organ transplants often do not tolerate such aggressive treatment.

Conclusion

- This case represents an aggressive course of B cell type monomorphic PTLD 13 years post-transplant in an EBV seronegative patient on chronic immunosuppressants.
- New treatments with low toxicity are needed to further improve outcomes for patients with PTLD.
- This case highlights the importance of adequate small bowel evaluation with terminal ileum intubation during colonoscopy and further advanced imaging if necessary for workup of iron deficiency anemia.