Post-Liver Transplant B-Cell Lymphoma in a Patient with Inflammatory Bowel Disease on Vedolizumab

Pooja R. Magavi, MD; Melissa J. Ferrari, PA-C, MPAS; Adam C. Deising, DO; Gauree G. Konijeti, MD, MPH
Scripps Clinic, Division of Gastroenterology & Hepatology, La Jolla, CA

Introduction

Post-transplant lymphoproliferative disorder (PTLD) occurs in solid organ and hematopoietic cell transplant recipients in the setting of chronic immunosuppression.

It often results from Epstein-Barr virus (EBV) affected B-cell propagation.

- EBV-negative patients with EBV-positive donors at higher risk

Case Presentation

A 67-year-old male with primary sclerosing cholangitis (PSC) cirrhosis status post living donor liver transplant in 2001 on tacrolimus, multiple skin cancers, recurrent PSC and pan-ulcerative colitis on sulfasalazine underwent total proctocolectomy and ileal pouch anal anastomosis in 2013 for low-grade colonic dysplasia.

2019:

- Diagnosed with moderate-to-severe Crohn's disease of J-pouch and prepouch ileum
- Started on α4β7 anti-integrin vedolizumab (VDZ) with steroid-free clinical response
- VDZ dose escalated to every four weeks

2020:

- Large ulcer in prepouch ileum on pouchoscopy (Figure 1)
- Biopsies showed CD20-positive, EBER-negative large B-cell lymphoma, consistent with PTLD (Figure 2)
  - No metastatic disease on PET CT
  - Negative bone marrow biopsy

Case Presentation (continued)

- VDZ stopped due to loss of response, budesonide resumed and R-CHOP chemotherapy (rituximab, cyclophosphamide, doxorubicin, vincristine, prednisolone) initiated
- Lymphoma regression but persistent ileal disease on follow-up pouchoscopy

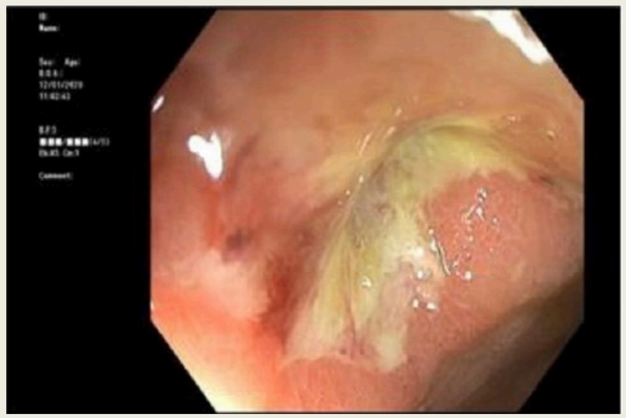

Figure 1. Isolated prepouch ileal ulcer

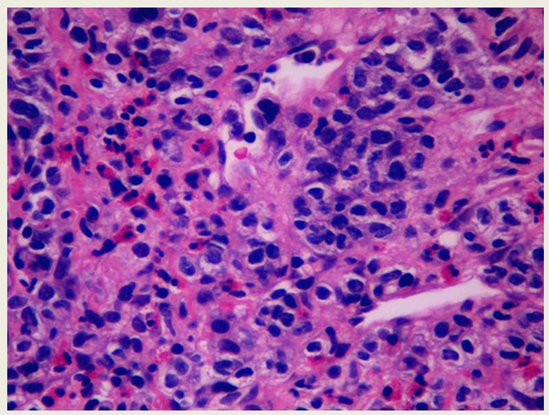

Figure 2. Typical histologic appearance of lymphoma

Discussion

PTLD comprises up to 20% of malignancies following solid organ transplantation.

- Most arise within one year of transplant

Clinical manifestations:

- Constitutional symptoms
- Extra-nodal masses involving central nervous system, lungs, gastrointestinal tract, liver, skin or allograft with organ dysfunction

Diagnosis/differential:

- Tissue biopsy gold standard for diagnosis
- Consider opportunistic infection and graft rejection in differential

Management:

- Immunosuppression reduction
- Systemic therapy for aggressive cases

While malignancy is a potential risk of biologic use, VDZ has not been specifically associated with B-cell lymphoma.

References

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