Gastrointestinal Manifestations of Post-Transplant Lymphoproliferative Disorder Following Solid Organ Transplant: A Case Series

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Introduction

- Post-Transplant Lymphoproliferative Disorder (PTLD) is a potentially fatal complication of solid organ transplant that occurs in the context of immunosuppression.
- Increased risk of PTLD is associated with the type of transplanted organ, immunosuppressive regimen and positive EBV status.
- It commonly presents as lymphadenopathy, fevers, chills, night sweats and weight loss.
- Gastrointestinal (GI) symptoms may be the primary presenting feature of PTLD.
- We present 3 cases of PTLD at various intervals following solid organ transplant with differing GI manifestations and involvement of the GI tract.

Case Descriptions

Case 1

- 58-year-old male 15 years after renal transplant presented with 1 week of fatigue, dark stools, and weight loss.
- Labs included Hgb 8.8 g/dl, ALP 252 IU/L, ALT 51 IU/L, AST 58 IU/L.
- EGD revealed multiple umbilicated lesions in the gastric antrum and patchy nodular mucosa in the cardia, fundus, and body (Figure 1). Biopsy was consistent with monomorphic PTLD, diffuse large B-cell lymphoma (DLBCL).
- Computed tomography (CT) revealed numerous hypodense hepatic lesions consistent with metastasis.

Case Descriptions (continued)

Case 2

- A 57-year-old male 6 years after pancreas transplant presented to the GI clinic with 1 month of worsening postprandial abdominal pain.
- CT showed a 6mm small bowel circumferential mass and mesenteric lymphadenitis. Seven days later he presented with worsening pain, nausea, and vomiting. CT showed small bowel obstruction.
- Laparotomy with resection of the strictured small bowel and excision of mesenteric lymph nodes was performed. Biopsy the lymph nodes and 2 raised, ulcerated lesions in the bowel showed monomorphic PTLD, DLBCL.

Case 3

- A 13-year-old male 1 month after small bowel transplant presented with fevers, back and abdominal pain.
- CT showed mesenteric and retroperitoneal lymphadenopathy, wall thickening of the transplanted bowel and hepatomegaly.
- EGD showed ileal mucosal congestion, however biopsies were negative for PTLD. Retroperitoneal and axillary lymph node biopsy showed polymorphic PTLD. EBV viral load was increased at 330000 copies/mL.

Table 1: Treatment and outcomes of three patients with PTLD following solid organ transplant

Case	1	2	3
Immunosuppressive regimen at diagnosis	Mycophenolate Mofetil Tacrolimus	Azathioprine Tacrolimus	Tacrolimus Sirolimus
Recipient EBV Status	Negative	Negative	Positive
Recipient CMV Status	Negative	Negative	Positive
Treatment	Rituximab Cyclophosphamide Hydroxydaunorubicin Vincristine Prednisone Reduction in immunosuppression	Rituximab Reduction in immunosuppression	Rituximab Cyclophosphamide Prednisone Valganciclovir Reduction in immunosuppression
Outcome	Alive, chemotherapy complicated by neutropenic fever, improvement in abdominal symptoms and size of liver metastases on imaging.	Alive, no symptoms or residual disease at 1 month follow up positron emission tomography scan.	Alive, screening colonoscopies unremarkable for graft rejection. No recurrence of PTLD.

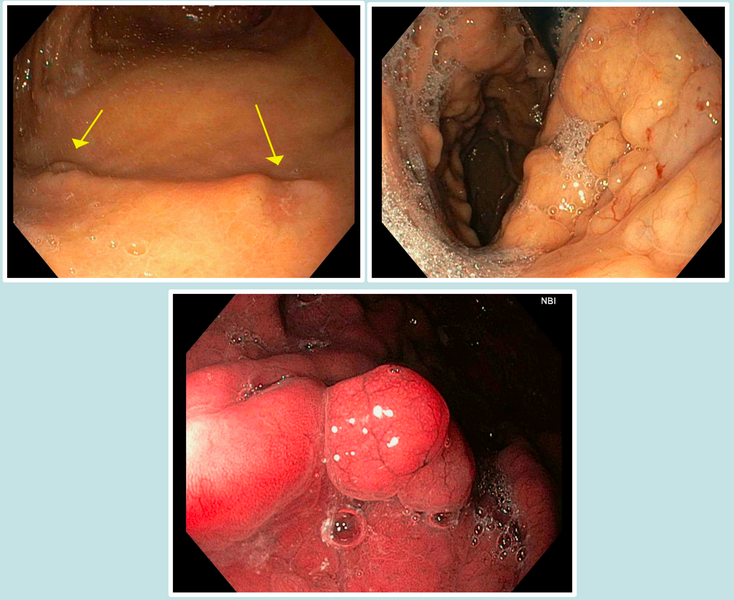

Figure 1: Multiple umbilicated lesions in the gastric antrum (top left), patchy nodular mucosa in the gastric lesser curvature (top right) and gastric body (bottom).

Discussion

- This series illustrates that early and late PTLD can present with predominantly GI manifestations including abdominal pain, bleeding, and obstruction.
- Clinicians should exercise a high clinical suspicion for PTLD in patients with GI symptomatology in the post-transplant setting. Prompt endoscopic evaluation and biopsy is necessary to classify diagnosis for appropriate treatment.