

A Case of EBV Associated Lymphoproliferative Disorder Presenting as Small Bowel Perforation in Renal Transplant Recipient

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Post-transplant lymphoproliferative disorder (PTLD) in renal transplant recipients has been reported to about 1-3%. It is often associated with Epstein-Barr virus (EBV) and occasionally with Cytomegalovirus (CMV). The PTLD predominantly involves the lymph node and lung. It is rare small bowel involvement with perforation. We report a rare case of PTLD presenting as small bowel perforation, with coinfection of EBV and CMV.

Case: A 13-years-old girl was admitted to the hospital with the chief complaint of abdominal pain. Intermittent epigastric pain started 2 months ago, and the pain became worsened over time. Severe body weight loss (11 kg within 6months, from 33 kg to 22 kg) was accompanied.

She was diagnosed as Vater syndrome(T10 hemivertebrae, imperforated anus, horseshoe kidney, toe syndactyly) and underwent transverse colostomy when she was a newborn, and anorectal plasty one year after. She started peritoneal dialysis when she was 10 years old, and received a kidney from a deceased donor 8 month ago. She was taking prednisolone, tacrolimus and mycophenolate mofetile.

On admission day, her blood pressure was 108/30mmHg and body temperature; 39.5°C. There was tenderness and rebound tenderness on whole abdomen. Free air under both diaphragms was found on abdominal radiograph, and multiple lung nodules were found on chest radiograph.

The results of complete blood counts and blood chemistry were as follows: WBC 7930 cells/ μ L (segmented neutrophil 82.4%), hemoglobin 6.8 g/dl, platelet 536,000/ μ L, urea nitrogen 28.6 mg/dL, and creatinine 1.1 mg/dL. Serum level of C-related protein was 14.1 mg/dL. Abdominal CT scan showed pneumoperitoneum with multiple small bowel perforation from proximal jejunum to ileum with multiple small bowel adhesion. Emergent segmental resection of small intestine and double barrel stomy was done.

Histologic diagnosis of small bowel lesion was confirmed as PTLD, monomorphic B-cell type. EBV in situ hybridization was positive in most neoplastic cells. Plasma CMV-PCR (1663 copies/ml), EBV-PCR was positive. Ganciclovir was added. Wedge resection of lung was performed, and nodular proliferation of lymphoid cells with necrosis was found which is compatible with regression status of PTLD.

After 4 weeks of antiviral therapy, we started weekly administration of rituximab (325 mg/m²/week). Lung nodules were significantly decreased in size on last follow up CT scan without significant complication after 4th dose of rituximab

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