Oral Vancomycin Induces and Maintains Remission of Ulcerative Colitis in the Subset of Patients With Associated Primary Sclerosing Cholangitis

To the Editor:

Ulcerative colitis (UC) associated with primary sclerosing cholangitis (UC-PSC) is considered a separate entity than UC alone. It typically presents as pancolitis with rectal sparing and backwash ileitis, and active endoscopic disease is often clinically silent. Our group and others have shown that up to one-third of patients with UC-PSC have exacerbation of their colitis after liver transplant (LT) despite intense immunosuppression[1]. Thus, it is reasonable to expect that UC-PSC, with its distinct genetic and immunopathology, would respond to different therapeutic approaches than UC alone. Small studies have evaluated the role of oral vancomycin (OV) in the treatment of PSC in children with inflammatory bowel disease (IBD) and have shown that vancomycin improves liver function tests and biliary imaging[2,3].

To the best of our knowledge, the role of OV in the treatment of UC in UC-PSC adult patients has not yet been evaluated. A retrospective chart review was done of 8 UC-PSC patients seen in our IBD clinic and who were placed on OV for symptomatic UC. Average disease duration was 15 years, and 5 patients had LT for PSC. Patients had previously failed, were intolerant to, or only had partial response to mesalamine (7), immunomodulators (5), and/or 1 or more biologics (5). Patients were started on OV at 125 mg PO QID for 6–8 weeks and then tapered down to the lowest effective dose of 125 mg PO TID or BID (Table 1). Total Mayo score before OV ranged from 6 to 11, with endoscopic subscores of 2. Total Mayo score 6–12 months after OV ranged from 0 to 2, with an endoscopic subscore of 0–1 and a total drop in Mayo score of 5–11 points (average reduction in Mayo Score was 7 points). Duration of follow-up was 9–36 months, and all patients maintained clinical and endoscopic response/remission; no side effects to OV were noted. Our studies suggest that OV is a potentially effective therapy for the induction and maintenance of remission of UC in the subset of patients with UC-PSC, including those with longstanding disease. This therapy is easy to take, low cost, and safe and does not add to the systemic immunosuppression of post-LT patients.

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TABLE 1. Oral Vancomycin Effects on Clinical and Endoscopic UC Mayo Score

Patient	Liver Transplant for PSC	Prior Failed Treatment	Current OV, Total Dose/Day, mg	Additional Immunosuppression While on OV	UC Mayo Score Pre-OV Initiation (Clinical/Endoscopic/Physician Assessment)	UC Mayo Score Post-OV Initiation (Clinical/Endoscopic/Physician Assessment)	UC Mayo Score Reduction After OV Initiation	Longest Remission Time/Current Status
Female 19 y	Liver transplant	5-ASA 6-MP Methotrexate Budesonide Infliximab Adalimumab	250	Low-dose prednisone Tacrolimus Sirolimus	9 (5/2/2)	0 (0/0/0)	–9	30 mo Clinical Mayo 0 Endoscopic Mayo at 24 mo: 0
Female 31 y	PSC without cirrhosis	5-ASA	375	None	8 (5/2/1)	0 (0/0/0)	–8	24 mo Clinical Mayo 0 Endoscopic Mayo at 24 mo: 0
Female 52 y	Liver transplant	5-ASA 6-MP Vedolizumab	375	Tacrolimus Mycophenolate	11 (6/2/3)	0 (0/0/0)	–11	19 mo Clinical Mayo 0 However, underwent total colectomy for flat high-grade dysplasia
Female 44 y	Liver transplant x2	5-ASA 6-MP	375	Budesonide Tacrolimus	7 (3/2/2)	0(0/0/0)	–7	36 mo Clinical Mayo 0 Endoscopic Mayo at 36 mo: 1
Male 39 y	Liver transplant	Infliximab Ustekinumab Vedolizumab	750	Low-dose prednisone	7 (3/2/2)	0(0/0/0)	–7	14 mo Clinical Mayo 0
Female 33 y	Liver transplant	5-ASA 6-MP Infliximab Adalimumab Vedolizumab q8 wk	375	Vedolizumab	8 (4/2/2)	2(2/NA/0) fecal calprotectin normalized	–6	9 mo Clinical Mayo 0
Male 42 y	PSC without cirrhosis	5-ASA Infliximab Vedolizumab	375	Azathioprine	6 (2/2/2)	1 (0/1/0)	–5	12 mo Clinical Mayo 0 Endoscopy Mayo at 12 mo 1
Female 44 y	Liver transplant x4 kidney transplant	5-ASA 6-MP Budesonide	375	Low-dose prednisone Tacrolimus	6 (2/2/2)	1 (0/0/1)	–5	24 mo Clinical Mayo 0 Endoscopic Mayo at 24 mo 0

Abbreviations: 5-ASA, 5-aminosalicylate; 6-MP, 6-mercaptopurine.