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Chronic Human Infection with Camelid Hepatitis E Virus

Hepatitis E virus (HEV) infection is considered to be among the most common causes for enterically transmitted acute hepatitis in developing countries. In developed countries, sporadic HEV infection is associated with exposure to domestic animals or consumption of raw or undercooked pork or game meat. Foodborne zoonotic transmission of HEV, predominantly HEV genotype 3, has been reported to cause chronic hepatitis in immunocompromised patients, such as organ transplant patients and has been associated with extrahepatic, predominantly neurological, manifestations. In this issue of *Gastroenterology*, Lee et al describe a 55-year-old patient with hepatitis B-associated cirrhosis and hepatocellular carcinoma who developed abnormal liver chemistries 17 months after living donor liver transplantation. Liver biopsies demonstrated increasing portal and interface hepatitis with portal and septal fibrosis (Figure 1). At 22 months posttransplant, anti-HEV immunoglobulin M was detected and HEV infection confirmed with HEV RNA polymerase chain reaction. Treatment with ribavirin and reduction of immunosuppression led to normalization of liver chemistries and HEV clearance. After full-length HEV sequencing demonstrated camelid HEV, genotype 7, the route of HEV transmission in this Muslim patient without exposure to pork was considered to be his exposure to camels and consumption of camel meat and milk. This case report illustrates that camel-derived food products can lead to zoonotic chronic HEV infection in immunocompromised patients and consumption of such products should be avoided in such patients. The incidence of acute camelid HEV infection in the general population, particularly in desert areas of the Middle East and Africa, deserves additional study.

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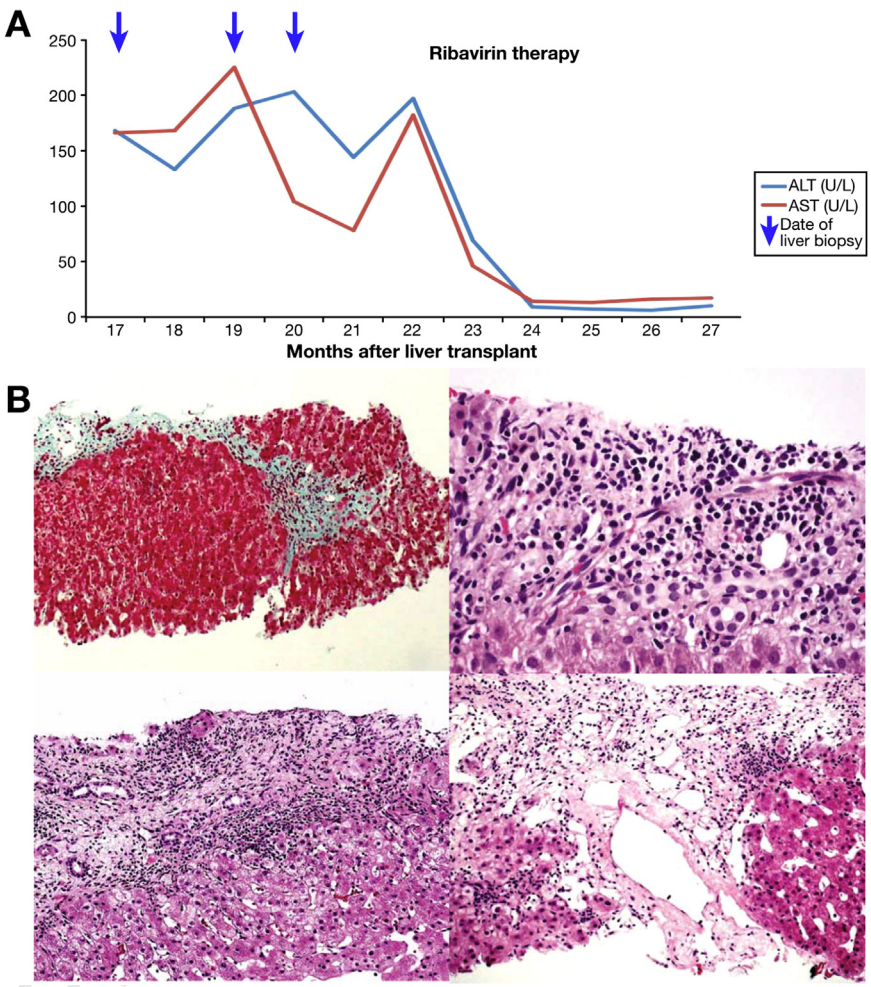

Figure 1. Clinicopathologic features. (*A*) Changes in serum alanine aminotransferase (ALT) and aspartate aminotransferase (AST) levels. *Arrows* point to times of liver biopsies. (*B*) Histopathologic changes showing increasing portal and interface hepatitis with portal and septal fibrosis from 17 to 20 months after transplant. *Top left*: Month 17. Predominant lymphocytic infiltrate (Masson trichrome, 100×). *Top right*: Month 19. Some portal tracts with mixed portal inflammatory cell infiltrate, focal bile duct damage characterized by cytoplasmic vacuolation and intraepithelial lymphocytes, with no venous endotheliitis (H&E, 200×). *Bottom left*: Month 20. Ongoing interface hepatitis (H&E, 200×). *Bottom right*: Month 20. Area of central perivenulitis with hepatocytic drop-out and lymphocytic infiltrate (H&E, 200×).

Quantification of Bowel Preparation for Colonoscopy

The quality of preparation for colonoscopy is among the most significant determinants in the success of colon cancer screening. Despite its importance, objective information concerning what is an adequate preparation for the procedure was lacking. In this issue of *Gastroenterology*, Clark et al report on their study performed at the West Haven Veterans Affairs Medical Center that evaluated the impact of variations in the quality of colonoscopy preps on cancer screening. The study was a prospective, nonrandomized, internally controlled study involving 438 men

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Table 1. Miss Rates and Differences in Miss Rates for Different Levels of Preparation Quality Based on BBPS Segment Scores

Segment score	Raw data Miss rate	Adjusted analyses Miss rate	Comparisons of segment scores	Adjusted analyses Difference in miss rates (95% CI)
Adenoma > 5 mm (primary outcome measure)				
BBPS = 1	16/106 (15.1%)	15.9%	BBPS 2 vs 3	-0.4% (-2.9% to 2.2%)
BBPS = 2	24/462 (5.2%)	5.2%	BBPS 1 vs 3	10.3% (2.7%–17.9%)
BBPS = 3	34/593 (5.7%)	5.6%	BBPS 1 vs 2	10.7% (3.2%–18.1%)

undergoing colon cancer screening. All participants underwent 2 colonoscopies that were either performed on the same day or within 60 days of each other. The procedures were performed by gastroenterology fellows or attending physicians. The attending physicians, who had previously completed training on the study protocol and assessment criteria, performed all the data collection.

The benchmark criteria for screening was the identification and removal of all polyps >5 mm. During the procedure, a previously validated scoring system for grading colonoscopy preparation quality, the Boston Bowel Prep Scale (BBPS), was used. The colon was divided into 3 segments, right, transverse, and left colon, and graded on a 0-3 scale with 0 the poorest quality (no mucosa visible secondary to the presence of stool) to 3 signifying an excellent view of the entire mucosa. If the quality of the preparation for each segment was ≥2 or ≥3 for a total score of 8-9, the procedure was repeated the same day by a different endoscopist. Patients with lower total scores repeated the procedure at a later date after a more extensive bowel preparation was prescribed. All polyps detected on the second colonoscopy were considered missed lesions.

The primary endpoint was the proportion of colonic segments in which a polyp >5 mm was missed. When all 1161 colonic segments examined as an aggregate, 593 had a BBPS score of 3, 462 were scored at 2, and 106 were scored 1. The relative percentage of segments with missed adenomas >5 mm were nearly equivalent at 5.2% and 5.6% for those with initial scores of 3 and 2, respectively. In contrast, those segments with an initial score of 1 featured a significantly higher fraction of segments with missed polyps at 15.9% (Table 1).

When considering recommendations that would be made to patients for future screening and surveillance based on the first colonoscopy, 16.3% would have been incorrect for those with a score of 3 in all 2segments, 15.3% for those with a score of 2 or 3 in all segments, and 43.5% with a score of 1 in ≥1 segments. Again, the results were considered equivalent between scores of 2 and 3.

This study provides valuable insights into polyp identification based on the quality of colonoscopy preps. Jason Dominitz and Philip Schoenfeld provide a detailed analysis of the study's implications in an accompanying editorial.

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Statins Decrease Decompensation Risk in Veterans with HCV Infection

The role of statins (3-hydroxy-3-methyl-glutaryl-CoA reductase inhibitors) in the management of hyperlipidemia and the prevention of coronary artery disease is well-established. Animal and limited clinical studies demonstrating anti-inflammatory, antifibrotic, and antineoplastic

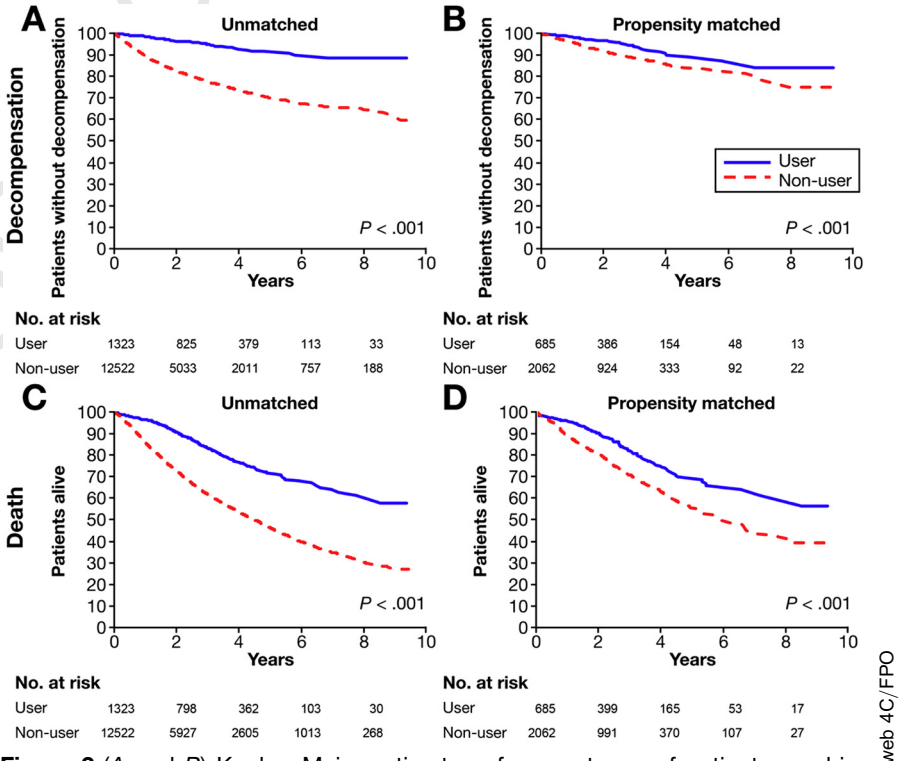

Figure 2. (*A* and *B*) Kaplan–Meier estimates of percentages of patients reaching decompensation for unmatched and propensity-matched cohorts. (*C* and *D*) Kaplan–Meier estimates of percentages of patients dying in unmatched and propensity-matched cohorts.