

Prophylactic Treatment of Hepatic Encephalopathy in Post-TIPS Patients

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Introduction

- TIPS is an effective way to treat complications of portal hypertension (ie, ascites, variceal bleeding).
- However, patients are at risk for post-TIPS HE.
- There is currently no strategy to prevent HE after TIPS placement and there is no way to predict which patients will suffer from post-TIPS HE.

Objective

- To determine whether lactulose alone, rifaximin alone, or lactulose plus rifaximin prevent HE after TIPS placement.

Methods

- **Retrospective chart review:**
 - 356 charts reviewed looking at patient demographics including age, race, cirrhosis etiology, TIPS indication (elective vs. emergent), and use of HE prophylaxis following TIPS placement.
- **Participants:**
 - 231 patients with cirrhosis who underwent TIPS at UAB for any reason between January 2010-November 2019 who had at least 1 follow up visit.
 - Diagnosis of HE was performed through chart review by reviewing both Hepatology clinic notes and all hospital admissions. Variables were analyzed using Chi-Squared test, two sample T test, and multivariate analysis for incidence of HE.

Results

Variable	No HE (N=134)	HE (N=98)	p-value
Age	54.50 ± 10.23	56.47 ± 10.81	0.1512
Gender			0.1656
Female	60 (44.78%)	35 (35.71%)	
Male	74 (55.22%)	63 (64.29%)	
Ethnicity			0.3118
White	116 (86.57%)	91 (92.86%)	
Black	13 (9.70%)	5 (5.10%)	
Other	5 (3.73%)	2 (2.04%)	
Cirrhosis Cause			0.6330
NASH	44 (34.11%)	3 (35%)	
Alcohol	36 (27.91%)	0 (24%)	
HCV	27 (20.93%)	4 (18%)	
Other	22 (17.08%)	46 (14%)	
TIPS			0.1495
Elective	89 (66.42%)	56 (57.14%)	
Emergent	45 (33.58%)	35 (35.71%)	
TIPS Indication			0.4807
EV	67 (50.76%)	53 (58.24%)	
Ascites	53 (40.15%)	29 (31.87%)	
Hydrothorax	10 (7.58%)	8 (8.79%)	
Prophylaxis Meds			0.1244
None	26 (19.40%)	31 (31.63%)	
Lactulose	70 (52.24%)	41 (41.84%)	
Rifaximin	4 (2.99%)	5 (5.10%)	
Both	34 (25.37%)	21 (21.43%)	

Variable	Unadjusted OR	95% CI	p-value	Adjusted OR	95% CI	p-value
HE Prophylaxis Meds						
None	ref			ref		
Lactulose	0.491	0.257, 0.939	0.0316	0.484	0.235, 0.996	0.0486
Rifaximin	1.048	0.255, 4.313	0.9478	1.326	0.234, 7.503	0.7495
Both	0.518	0.244, 1.100	0.0871	0.476	0.197, 1.153	0.1000

Discussion

- Lactulose as prophylaxis following TIPS procedure was associated with significantly decreased likelihood of developing HE.
- Lactulose provides a cost effective alternative to rifaximin.
- Additional investigation needs to be done including obtaining data from other centers to correlate with these findings.

References

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