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LETTER TO EDITOR
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When to perform gastroscopy in the PSC patient

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Dear Editor:

Variceal hemorrhage (VH), particularly from esophageal varices, is associated with high fatality and recurrence rates in cirrhotics despite standard medical and endoscopic intervention.[1] In primary sclerosing cholangitis (PSC), the decision to perform screening endoscopy varies. Retrospective studies suggest that platelet count negatively correlates with endoscopic features of portal hypertension,[2,3] but assessment of the strength of this association requires further observational data as it is based on a relatively small number of patients with PSC. To further assess the relationship between platelet count and the presence of large (> 5 mm) esophageal varices in patients with PSC, and to determine the association between liver enzymes and model for end-stage liver disease score (MELD) with risk for large esophageal varices, we assessed all adult PSC patients seen at the University of Western Ontario over a 10 year period following approval by the Ethics Review Board.

Baseline clinico-demographic and endoscopic data on presence and grade of esophageal varices were collected and summarized in table 1 on the 66 patients that fulfilled criteria. Univariate logistic regression analysis was con-

Table 1. Baseline clinico-demographic characteristics and predictors of large esophageal varices in univariate analysis.

Variable	n = 66 (%)
Male	52 (78.8)
MELD > 10	46 (69.7)
PLT < 200 x 10^9/mL	40 (60.6)
PLT < 175 x 10^9/mL	36 (54.5)
Beta-blockers	3 (4.5)
Hx of var. bleed	9 (13.6)
Large varices	5 (7.6)
Gastric varices	6 (9.1)
HTN gastro	17 (25.8)
Primary endpoint (large varices)	15 (22.7)

Variable	Mean ± SD	Median	Regression coefficient	χ^2	P value
Age	43 ± 12	45.4	0.049	2.61	0.11
Albumin g/L	38 ± 6.4	33	-0.032	0.51	0.47
Alk. Phos. U/mL	414 ± 265	378.5	-0.001	0.6	0.44
AST U/mL	127 ± 94	98	-0.002	0.38	0.54
ALT U/mL	104 ± 72	79	-0.002	0.13	0.71
T. Bili mmol/L	107 ± 132	65.1	0.001	0.2	0.66
INR	1.36 ± 0.7	1.2	0.074	0.04	0.85
MELD	15.0 ± 7.9	14	0.011	0.09	0.76
Platelets	**182 ± 104**	**144.5**	**-0.009**	**4.17**	**0.04**
Ratio AST/Platelets	0.96 ± 1.16	0.69	0.031	0.02	0.90

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ducted to determine which variables were associated with the occurrence of large esophageal varices. Variables significant at $p < 0.05$ were entered into the multiple regression model to determine the combination of best predictors for large esophageal varices.

The univariate analysis revealed that only platelet count was associated with the outcome; platelet count ≤ 150 x 10^9/mL was associated with large esophageal varices, with odds ratio (OR) 5.33 (95% confidence interval (CI) 1.3-21.3, $p = 0.02$).

We conclude that mild thrombocytopenia with platelet count of 150,0000/mm^3 or less is a reliable metric by which to perform screening endoscopy to identify large esophageal varices in PSC patients. We advocate it is ill-advised to defer endoscopy until overt decompensated disease develops, as the opportunity to prevent a potentially fatal and universally costly complication is missed. Use of serum platelet count to guide clinical decision-making on when to initiate screening endoscopy in PSC patients may be helpful in subjects without clinically obvious portal hypertension. Our findings may also avert the need for endoscopy in some PSC patients, but more studies are needed.

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