



The Timing of Esophagogastroduodenoscopy (EGD) and its Impact on Patients with Cirrhosis and Upper GI Bleeding

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Introduction

GI bleeding in patients with cirrhosis, particularly those with gastroesophageal variceal bleeding have a high rate of morbidity and mortality.

Current guidelines recommend endoscopy within 24 hours for GI bleeding. However, endoscopy for GI bleeding in patients with alcohol associated cirrhosis is frequently delayed due to withdrawal concerns.

We studied the timing of endoscopy for GI bleeding in alcoholics with liver disease, and its impact on outcomes.

Methods and Materials

Population: Patients aged 18- 90 with a diagnosis of cirrhosis and GI bleeding at Northwell Health tertiary medical centers from 10/2019 to 2/2022 were selected for analysis.

Data regarding time from admission to EGD, as well as other parameters including age, gender, history of alcohol use, MELD-Na score, length of hospital stay, benzodiazepine requirements, admission to the ICU, and mortality were assessed through chart review.

Timing of endoscopy was categorized as **early (<24 hours)** or **late (>24 hours)** from admission time.

	Odds Ratio	P-value	Confidence Interval
EGD within 24 hours vs Length of Stay	0.9152	.0019	0.8653-0.9679
EGD within 24 hours vs PRBC transfused	0.9613	0.4806	0.8615-1.0727
EGD within 24 hours vs MELD-Na	0.9843	0.4661	0.9434-1.0270
EGD within 24 hours vs admission Hgb	0.9876	0.8516	0.8664-1.1258

Table 1: Logistic regression of early EGD vs Length of Stay, PRBC transfused, MELD-Na score, and admission hemoglobin

	Relative Risk	P-value	Confidence Interval
EGD within 24 hours vs mortality	0.7081	0.4480	0.2902-1.7273

Table 2: Relative risk of early EGD and mortality of cohort

Results

- 205 patients were found to have an alcohol use history.
- 150 eventually underwent EGD during the admission.
- Early EGD did not correlate with higher MELD-Na scores, mortality, blood transfusion requirements, admission hemoglobin, or length of stay (Table 1).
- Those who underwent EGD within the first 24 hours had higher rates of ICU admission (RR 2.4217 and CI 1.5037-3.9001, p=0.0003).
- The need for benzodiazepine use for alcohol withdrawal had a slight positive association with late endoscopy (RR = 1.4239, CI 1.0633-1.9068, p=0.0177) but did not affect mortality (RR 1.1086, CI 0.7153-1.7182, p=0.6447) or ICU admissions (RR 1.1086, CI 0.7153-1.7182, p=0.6447)

Conclusions

Since early EGD is associated with significantly higher rates of ICU admission, patient optimization and treatment of withdrawal symptoms can potentially reduce ICU admission even if EGD is delayed past 24 hours

In patients with alcohol withdrawal and active GI bleeding, early EGD compared to late EGD has a favorable but insignificant effect on patient's mortality and length of stay in the hospital. Late EGD was not associated with adverse outcomes.

Further studies are warranted to better elucidate the optimal timing for this subset of alcohol associated cirrhosis with GI bleeding.

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