9-1-2021

'Scope' of acute esophageal obstruction in the era of COVID-19.

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On univariate analysis for potential baseline predictors (age, Child's score, hematemesis as initial presentation, platelet count, spleen size, portal vein diameter and HVPG) only Child's score increased the risk of mortality.

This retrospective analysis of a large prospectively collected database of NCIPH patients demonstrate a good medium-term overall survival in these patients. The traditional baseline factors, including variceal bleed, that predict mortality in cirrhosis are not operative in patients with NCIPH, over a 5 year follow-up period.

The 5-year mortality risk in the cirrhosis patients studied by D'Amico *et al*. [8] (from Italy, $n=494$, 'cryptogenic cirrhosis': 37, 7.5%) was 18% for stage 3 and 25% for stage 4; in contrast, this was much lower in NCIPH patients in the current study (2% for stage 3 and 3.4% for stage 4 patients). Similar higher mortality rates have been reported by Gomez *et al*. [9] in hepatitis C-related cirrhosis (from Cuba, $n=660$, 312 weeks mortality in stage 3: 15% and stage 4: 28%) and by Nilsson *et al*. [10] in mixed etiology cirrhosis (from Sweden, $n=1317$, 5-year mortality in decompensated patients, i.e. ≥ stage 3: 66%). In centers in India, where 'cryptogenic' chronic liver disease is a common etiology for portal hypertension and NCIPH remains its important subset [7], Baveno-VI clinical staging of 'cirrhosis' under-estimates survival over a 5-year follow-up period.

Our study is limited by retrospective nature and consequent patchy follow-up. Earlier (stages 0 and 1) and later (stages 5 and 6) stages were not adequately represented in the current study.

In conclusion, in parts of the world with increased burden of NCIPH, Baveno-VI recommendation of functional clinical staging of cirrhosis, is applicable only after liver biopsy rules out NCIPH in patients labelled as 'cryptogenic cirrhosis'.

Acknowledgements

The authors acknowledge the funding from the Department of Science and Technology, Govt. of India (SERB: EMR/ 2015/000570) and Fluid Research Fund from Christian Medical College, Vellore for the various studies in noncirrhotic intrahepatic portal hypertension (NCIPH).

Design: A.G., U.Z., B.R., E.E. and C.E. Data accrual: A.G., U.Z., B.R., E.E. and C.E. Analysis: A.G., B.R., E.E. and C.E. Interpretation: A.G., E.E. and C.E. Manuscript writing: A.G., E.E. and C.E. All authors finally approved the manuscript.

Conflicts of interest

There are no conflicts of interest.

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DOI: 10.1097/MEG.0000000000002227

'Scope' of acute esophageal obstruction in the era of COVID-19

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Received 16 February 2021 **Accepted** 1 March 2021

The coronavirus disease-2019 (COVID-19) caused by the novel SARS-CoV-2 led to significant strain on the emergency department (ED) visits worldwide. Multiple stay-at-home orders were issued during the pandemic unless medical treatment was urgently needed [1]. Acute esophageal obstruction (AEO) due to food/foreign body impaction usually present to the ED, given its severe symptoms. Most esophageal foreign bodies pass through the gastrointestinal (GI) tract uneventfully, and related mortality is very low. Still, most of these patients receive endoscopic interventions (up to 76%) [2]. The number of nonurgent endoscopies plummeted sharply during the pandemic to reduce

Table 1. Baseline characteristics, laboratory findings and clinical outcomes of the patients with acute esophageal obstruction (AEO) ingestion during the COVID-19 pandemic (2020) when compared with pre-COVID time (2019)[a]

	Before propensity score matching			After propensity score matching		
	AEO 2020 *N* = 5890 (%)	AEO 2019 *N* = 23 478 (%)	*P* value	AEO 2020 *N* = 5886 (%)	AEO 2019 *N* = 5886 (%)	*P* value
Demographics	Mean + SD or *n* (%)	Mean + SD or *n* (%)		Mean + SD or *n* (%)	Mean + SD or *n* (%)	
Age (years)	59.42 (19.26)	60.28 (19.23)	0.002	59.42 (19.26)	59.92 (19.34)	0.162
Women	2483 (42.16)	9869 (42.04)	0.866	2482 (42.17)	2475 (42.05)	0.896
Race						
White	1264 (21.46)	4943 (21.05)	0.495	1262 (21.44)	1266 (21.51)	0.928
Black or African American	107 (1.82)	425 (1.81)	0.974	107 (1.82)	90 (1.53)	0.222
Comorbid conditions						
Essential (primary) hypertension	3195 (54.24)	12 823 (54.62)	0.608	3193 (54.25)	3194 (54.26)	0.985
Diabetes mellitus	1322 (22.45)	5353 (22.8)	0.561	1321 (22.44)	1304 (22.15)	0.707
Chronic lower respiratory diseases	974 (16.54)	3834 (16.33)	0.702	972 (16.51)	970 (16.48)	0.960
Chronic kidney disease (CKD)	739 (12.55)	2895 (12.33)	0.653	737 (12.52)	730 (12.4)	0.845
Overweight and obesity	1340 (22.75)	4959 (21.12)	0.006	1337 (22.72)	1351 (22.95)	0.759
Ischemic Heart Disease	1300 (22.07)	5124 (21.83)	0.682	1300 (22.09)	1302 (22.12)	0.965
Alcohol-related disorders	465 (7.9)	1659 (7.07)	0.028	463 (7.87)	462 (7.85)	0.973
Eosinophilic esophagitis	270 (4.58)	885 (3.77)	0.004	267 (4.54)	259 (4.4)	0.721
Gastrointestinal hemorrhage	244 (4.14)	1032 (4.4)	0.394	244 (4.15)	278 (4.72)	0.128
Psychotic disorders	245 (4.16)	921 (3.92)	0.405	244 (4.15)	232 (3.94)	0.574
Clinical presentation						
Nausea and Vomiting	1370 (23.26)	5220 (22.23)	0.091	1367 (23.23)	1338 (22.73)	0.525
Abdominal pain	2249 (38.18)	8413 (35.83)	0.001	2245 (38.14)	2118 (35.98)	0.015
Medications						
Antiemetics	1294 (21.97)	4550 (19.38)	<0.001	1292 (21.95)	1122 (19.06)	0.000
Omeprazole	1164 (19.76)	4492 (19.13)	0.273	1160 (19.71)	1151 (19.56)	0.835
Pantoprazole	848 (14.4)	3010 (12.82)	0.001	847 (14.39)	762 (12.95)	0.023
H2 blockers	420 (7.13)	1382 (5.89)	0.000	419 (7.12)	350 (5.95)	0.010
Laboratory findings after COVID-19 diagnosis						
Hemoglobin (g/dL)	13.57 (1.99)	13.17 (1.91)	<0.001	13.48 (1.96)	13.46 (1.74)	0.837
Platelets (10^9/L)	263.53 (74.96)	239.97 (76.9)	<0.001	265.02 (79.27)	243.88 (78.77)	<0.001
Creatinine (mg/dL)	0.99 (0.52)	1.68 (8.51)	0.211	0.99 (0.52)	1.53 (6.94)	0.226
Urea nitrogen (mmol /L)	16.9 (8.27)	16.87 (8.48)	0.966	16.88 (8.28)	16.33 (8.22)	0.486
Chloride (mEq/L)	103.24 (3.38)	103.27 (3.6)	0.934	103.3 (3.27)	103.11 (3.71)	0.550
Bicarbonate (mEq/L)	26.44 (3.07)	26.5 (3.25)	0.811	26.44 (3.08)	26.52 (3.11)	0.786
Potassium (mEq/L)	4.32 (0.43)	4.32 (0.45)	0.871	4.32 (0.43)	4.33 (0.56)	0.842
Sodium (mEq/L)	140.02 (2.92)	139.93 (2.97)	0.690	140.06 (2.86)	140.04 (2.79)	0.941
Leukocytes (1000/uL)	7.31 (2.45)	7.89 (9.59)	0.410	7.33 (2.44)	7.66 (7.24)	0.558
Hb A1C	6.57 (1.94)	6.57 (1.9)	0.976	6.57 (1.94)	6.57 (1.82)	0.991
Lymphocytes (1000/uL)	25.07 (10.7)	25.66 (10.58)	0.536	25.23 (10.56)	25.24 (10.68)	0.994
Neutrophils	1328.73 (2261.27)	1080.92 (2029.11)	0.201	1328.73 (2261.27)	1234.17 (2131.54)	0.715
Ferritin (ng/mL)	195.35 (268.81)	107.49 (149.07)	0.057	195.35 (268.81)	94.01 (99.9)	0.082
Outcomes						
	AEO 2020 *N* = 5890 (%)	**AEO 2019 *N* = 23 478 (%)**	**Risk Ratio (95% CI); *P* value**	**AEO 2020 *N* = 5886 (%)**	**AEO 2019 *N* = 5886 (%)**	**Risk Ratio (95% CI); *P* value**
Mortality	52 (0.88)	845 (3.60)	0.25 (0.19, 0.32); <0.001	52 (0.88)	229 (3.89)	0.23 (0.17, 0.31); <0.001
EGD	991 (16.83)	6475 (27.58)	0.61 (0.57, 0.65); <0.001	991 (16.84)	1583 (26.89)	0.63 (0.58, 0.67); <0.001
Esophageal perforation	13 (0.22)	74 (0.32)	0.70 (0.39, 1.26); 0.233	13 (0.22)	15 (0.25)	0.87 (0.41, 1.82); 0.71

[a]Propensity score matching was done based on the following variables: age, sex, race, hypertension, diabetes mellitus, chronic lower respiratory disease, chronic kidney disease (CKD), obesity, ischemic heart disease, alcohol-related disorders, eosinophilic esophagitis, gastrointestinal hemorrhage and psychotic disorders.

exposure and preserve personal protective equipment. It is unclear if ED visits for AEO and their endoscopic management changed due to the COVID-19 pandemic in the USA.

We utilized a federated cloud-based network database named TriNetX, which provides access to electronic medical records from 92 healthcare organizations from the USA. The AEO adult patients hospitalized from 1 January 2020 to 1 December 2020, were compared to a similar timeline in 2019 from TriNetX. We used ICD-10 codes for food/foreign body in esophagus, causing other injury acute food impaction (T18.128 A, T18.12), foreign body esophagus (T18.198, T18.1, T18.19, T18.108, T18.108A). Outcomes of the study included utilization rates of esophagogastroduodenoscopy (EGD), esophageal perforation, inpatient hospitalization and mortality. The outcomes were measured before and after 1:1 propensity matching of the groups based on the baseline demographics and comorbidities.

Prevalence of AEO among all ED visits in 2020 was 0.12% (5890 AEO ED visits among 4 672 024 total visits), compared to 0.17% (23 478 AEO ED visits among 14 199 648 total visits) in 2019. There was a small but significant decrease (0.05%) in AEO ED visits from prepandemic compared to pandemic times ($P < 0.01$). Patients with AEO had a higher prevalence of eosinophilic esophagitis (mean 270 [4.6%] vs. 885 [3.8%], $P = 0.004$) and alcohol-related disorders (mean 465 [7.9%] vs. 1659 [7.1%], $P = 0.03$) in 2020 group vs. 2019 group. Patients in the 2020 group had a lower EGD utilization (RR 0.63, 95% CI, 0.58–0.67, $P < 0.001$) but esophageal perforation (RR 0.87, 95% CI, 0.41–1.82) and inpatient hospitalization rates (RR 0.92, 95% CI, 0.79–1.05) did not differ between two groups. Interestingly, during the pandemic, the AEO patients had a lower mortality rate (RR 0.23, 95% CI, 0.17–0.31, $P < 0.001$) than in 2019 (Table 1).

With the advent of COVID-19, multiple stay-at-home orders were issued in the USA, with widespread healthcare services and utilization disruption. Patients have expressed concerns about visiting healthcare facilities due to the potential of the spread of SARS-CoV-2 [3]. Many GI societies also recommended deferring elective procedures. This was due to a concern for potential transmission of the virus from aerosolization of GI secretions and judicious use of PPE, which resulted in an overall reduction in the number of endoscopies during the pandemic [4].

Our study shows a small reduction (0.05%) of AEO ED visits in 2020 compared to 2019. However, EGD utilization plummeted to 63% for AEO in 2020. If this is due to spontaneous resolution of the food impaction or reduced presentations to the ED needs to be studied prospectively.

Acknowledgements

H.G. and A.P. helped with conception and design; A.P. and M.G. helped with statistical analysis; A.P. wrote the first draft; all the authors critically revised, edited and finally approved the manuscript.

Conflicts of interest

N.S. serves as a consultant for Steris Medical, Boston Scientific and Medtronic. For the remaining authors, there are no conflicts of interest.

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DOI: 10.1097/MEG.0000000000002244