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☆ **Spotlight on Special Topics**

ELEVATION OF NT-PROBNP LEVEL IS ASSOCIATED WITH HIGHER IN-HOSPITAL MORTALITY FOR COVID-19 IN ETHNIC MINORITY COMMUNITY

Poster Contributions
Monday, May 17, 2021, 9:45 a.m.-10:30 a.m.

Session Title: Spotlight on Special Topics: COVID 7
Abstract Category: 61. Spotlight on Special Topics: Coronavirus Disease (COVID-19)

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Background: Patients with COVID 19 infection and Cardiovascular complications are prone to higher mortality. We evaluated impact of elevated NT pro-BNP level on the mortality in patients with COVID 19 infection admitted to South Bronx Community Hospital, New York.

Methods: Retrospective observational study among COVID-19-associated hospitalizations between March and May 2020. Our cohort included adults (age >= 18 years) with confirmed positive SARS-CoV 2 PCR test.

Results: Total 1,263 patients were admitted during the time frame of study, and 508 patients had NT-proBNP tested out of which 305 patients had elevated NT-pro-BNP level > 450 pg/mL which represents 99th percentile reference limit for our clinical laboratory. Since there were multiple potential covariates, we used propensity score weighting to obtain more credible causal estimates of NT-proBNP elevation (Table 1). Overall 228 out of 508 patients died (44.9%), while mortality difference was noted to be 27.6 % (normal NT-proBNP, 56/203) vs. 56.4% (elevated NT-proBNP, 172/305). The final generalized linear models revealed independent association between elevated pro-BNP level and mortality after adjusting for multiple clinical variables (OR=1.95 [95% confidence interval: 1.24-3.07], p=0.004).

Conclusion: Elevated NT-proBNP level was associated with adverse mortality in a 2:1 ratio, showing the potential impact of its use as an independent prognostic factor in hospitalized patients with COVID-19.

	NT-proBNP normal N=203	NT-proBNP elevated N=305	Total N=508	Difference after propensity score weight adjustment	Balanced after propensity score weight adjustment
Age, years (mean± SD)	58.8±15.2	66.6±14.2	63.5±15.1	0.0001	Yes
Female, (%)	75 (37.0)	130 (42.6)	205 (40.4)	0.0000	Yes
Ethnicity, (%)					
Black	54 (26.6)	83 (27.2)	137 (27.0)	-0.0000	Yes
Hispanic/Latino	111 (54.7)	141 (46.2)	252 (49.6)	-0.0000	Yes
Caucasian/Asian/other	38 (18.7)	81 (26.6)	119 (23.4)	0.0000	Yes
Obesity, (%)	103 (50.7)	127 (41.6)	230 (45.3)	-0.0000	Yes
HTN, (%)	131 (64.5)	241 (79.0)	372 (73.2)	0.0000	Yes
HLD, (%)	71 (35.0)	141 (46.2)	212 (41.7)	0.0000	Yes
DM, (%)	98 (48.3)	171 (56.1)	269 (53.0)	0.0000	Yes
CHF, (%)	8 (3.9)	62 (20.3)	70 (13.8)	0.0000	Yes
CAD, (%)	16 (7.9)	48 (15.7)	64 (12.6)	0.0000	Yes
Afib/Aflutter	2 (1.0)	35 (11.5)	37 (7.3)	-0.0000	Yes
CKD stage 3 or above	3 (1.5)	10 (3.3)	13 (2.6)	0.0000	Yes
Chronic lung disease	48 (23.7)	78 (25.6)	126 (24.8)	0.0000	Yes
AIDS	15 (7.4)	27 (8.9)	42 (8.3)	0.0000	Yes
Cirrhosis/chronic hepatitis	7 (3.5)	10 (3.3)	17 (3.4)	0.0000	Yes
Malignancy	14 (6.9)	28 (9.2)	42 (8.3)	0.0000	Yes