COVID-19 Mortality Difference between Blacks and Latinx in Newark, New Jersey

Kok Hoe Chan, MD, *Safia Afaq, MD, Jihad Slim, MD*

Saint Michael's Medical Center, New York Medical College, Newark, New Jersey

Introduction

- According to CDC
  - Blacks (B) have 4.7x higher risk of hospitalization and 2.6x higher risk of mortality
  - Latinx (L) have 4.6x higher risk of hospitalization and 1.1x risk of mortality.
- Herein, we aimed to look at demographic and outcomes between those 2 groups in our inner-city hospital.

Methodology

Study Design

- Retrospective Hospital Cohort Study

Inclusion Criteria

- Age ≥ 18 years old
- Admitted between 03/15/2020 and 05/25/2020
- Confirmed COVID-19 via RT-PCR
- Complete laboratory profile and well-defined clinical outcomes.

Exclusion Criteria

- Absence of above
- Were still inpatients on 5/25/2020

Analysis

- Demographic, clinical and laboratory data were reviewed and retrieved.
- Data was expressed as counts and percentages or mean. The chi-square (χ) test was used to identify the associations between categorical variables.

Results

- Out of the 490 patients during the study period:
  - 199 (40.6%) were B and 211 (43.1%) were L
  - Average age was 64 and 57 years old for B and L respectively.
  - As for gender, 104 (52.2%) male and 95 (47.8%) female in the B subgroup; 127 (60.2%) male and 84 (39.8%) female in the L subgroup.
  - Hypertension, chronic kidney disease and end-stage renal disease were more common in B.
- Mechanical ventilation was required for 21 (10.6%) of B and 42 (19.9%) of L patients.
- Forty-four (22.1%) B and 53 (25.1%) L patients expired.
- No statistical difference in terms of need for mechanical ventilation and clinical outcomes between the 2 groups.
- There was more insured B as compared to L [179 (89.9%) patients was insured in B subgroup as compared to only 139 (65.9%) in L subgroup; p <0.0001].
- When comparing the mortality between the 2 groups in respective to their comorbidities, only age >65 years old seems to play a role in increasing the risk of mortality in the B subgroup (z-score 3.231, p=0.0012; odds ratio [OR], 0.3196; 95% confidence interval [CI], 0.1531-0.6313)

Results

	Blacks (n=199)	Latinx (n=211)	p-value
Age	63.98 ± 14.81	57.08 ± 15.53	<0.0001
Gender			
Male	104 (52.2%)	127 (60.2%)	0.1062
Female	95 (47.8%)	84 (39.8%)	
Comorbid			
Diabetes Mellitus	81 (40.7%)	74 (35.1%)	0.2341
Hypertension	149 (74.9%)	103 (48.8%)	<0.0001
Chronic Kidney Disease	59 (29.6%)	35 (16.6%)	0.0034
End-stage Renal Disease on Hemodialysis	24 (12.1%)	13 (6.2%)	0.0334
Body Mass Index	30.79 ± 8.95	30.30 ± 7.19	0.5552
Mechanical Ventilation			
Yes	21 (10.6%)	42 (19.9%)	0.1347
No	178 (89.4%)	169 (80.1%)	
Outcome			
Alive	155 (77.9%)	158 (74.9%)	0.4750
Expired	44 (22.1%)	53 (25.1%)	
Insurance			
Yes	179 (89.9%)	139 (65.9%)	<0.0001
No	18 (10.15)	72 (34.1%)	

Table: Demographic characteristics and clinical outcome between Blacks and Latinx

Discussion and Conclusion

- This retrospective cohort study of hospitalized patients with COVID-19 did not show a difference in terms of risk for mechanical ventilation or death between B and L in Newark, New Jersey.
- Interestingly only age over 65 years old was accompanied by a substantial increase in mortality in B compared to L
- This fact will need to be corroborated with larger studies.