Hepatocellular Carcinoma Screening and Treatment Patterns among Black Patients with Chronic Hepatitis B

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Background

- Significant racial disparities exist in Hepatitis B virus (HBV) infection across the nation, from screening variability, to treatment patterns and clinical outcomes
- The Black community bears a disproportionately large disease burden
- In this study, we sought to compare the disease courses between Black patients seen at a private tertiary referral center vs. those evaluated at a high-volume county safety net hospital

Methods

Using informatics, we identified adult patients with chronic HBV based on ICD-10 codes, who had ≥1 clinic visit between January 1, 2010 and December 31, 2020 at University of Miami Hospital (UM) and Jackson Memorial Hospital (JM).

We conducted retrospective chart review to gather demographic and clinical data.

We used descriptive statistics, Kruskal-Wallis, and Pearson's chi squared tests to evaluate for differences between Black patients at each hospital with the significance interval set to p <0.05. Analyses were conducted using STATA 17.0.

Tables and Figures

Variable	Blacks @ JM (n = 58)	Blacks @ UM (n = 306)	p-value
Median Age, years (IQR)	54 (45-63)	59 (47-66)	0.0001
Male Gender, %	68.3	63.7	0.24
US Born, %	50.9	32.7	0.012
Department seen by, %			
Hepatology	41.4	78.8 ←	<0.001
General Internal Med	62.1	8.8	<0.001
Gastroenterology	1.7	14.1	0.008
HbeAg / HbeAb checked, %	52.6	78.5	<0.001
Active hepatitis, %	19	2.9	<0.001
High viral load (>20,000), %	15.5	3.3	<0.001
Currently on Treatment, %	24.6	52.9	<0.001
Tenofovir	13.8	31.4	0.007
TDF	13.7	12.1	0.74
TAF	13.1	1.7	0.0014
Entecavir	13.4	5.2	0.078
Adefovir	0.6	0	0.54
Lamivudine	8.6	1.6	0.003
Alcoholic Liver Disease, %	14	1.8	<0.001
Ascites, %	22.8	7.3	<0.001
OLT, %	26.3	1.8	<0.001
HCC Screening, %			
Fibroscan	17.5	31	0.04
AFP	42.11	78.3	<0.001
Surveillance imaging (<6 months)	58.9	77.9	0.003
Diagnosed with HCC	5.1	5.9 ←	0.71

Table 1. Comparison of demographics, screening, and management patterns between Black patients at JM vs. those at UM. AFP = alpha-fetoprotein; OLT = orthotopic liver transplantation; HCC = hepatocellular carcinoma.

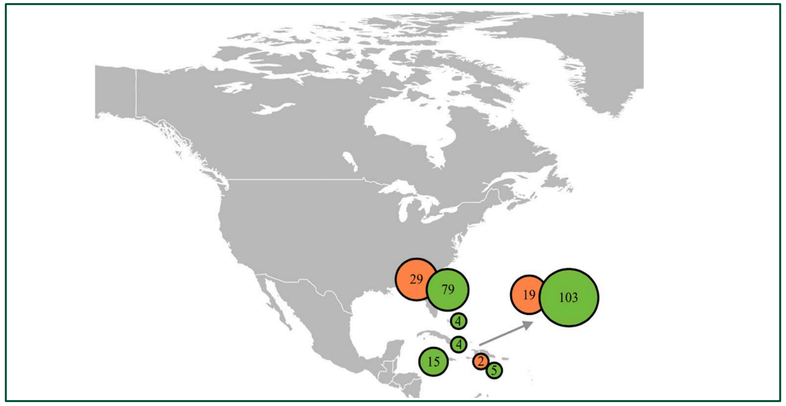

Figure 1. Geographic distribution of Black patients' most common birth countries. Green UM, Orange JM.

Results

- Of 649 Black patients detected by informatics, 364 had confirmed HBV with **306** seen at UM and **58** seen at JM
- Compared to JM, UM patients were significantly older, English speakers, and privately insured (p < 0.001) (Table 1)
- Most common birth countries included Haiti and the USA, among others (Figure 1)
- More JM patients had active hepatitis, and 15.5% had a high viral load (HBV DNA PCR >20,000) compared to 3.3% at UM
- Patients seen at UM were more likely to be treated, 52.9%, vs. 24.6% at JM and placed on newer regimens (ie Tenofovir [TAF] and Entecavir)
- UM patients were significantly more likely to undergo HBeAg and HBeAb testing, compared to their JM counterparts
- Black patients at JM were significantly more likely to have alcoholic liver disease, ascites, and orthotopic liver transplantation

Conclusions

These findings suggest that significant differences in demographics, referral patterns, laboratory evaluation, and management exist between Black patients at UM vs. JM, despite both hospitals being affiliated with the same academic institution.

Our analysis on JM patients is ongoing and will be crucial to inform future interventions aimed at standardizing and providing evidence-based HBV care across medical centers.

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