Understanding Racial Disparities in Hepatocellular Carcinoma Treatments and Outcomes

Lauren Devore Nephew, Susan Rawl and Naga Chalasani

OBJECTIVES/SPECIFIC AIMS: Black patients with hepatocellular carcinoma (HCC) receive fewer curative therapies and have higher mortality than other groups. Reducing this disparity will require an in-depth understanding of patient comorbidities, tumor characteristics, and social determinants of health. Our objectives are to:

a) perform a multi-center retrospective cohort study of black and white patients diagnosed with HCC in the Indianapolis area.
b) prospectively enroll black and white patients with HCC to collect clinical characteristics as well as data on the social determinants of health.

METHODS/STUDY POPULATION: A retrospective chart review of patients with a diagnosis of HCC from 2010-2017 from five area Indianapolis hospitals will be performed. Demographics, comorbidities, liver disease severity, and tumor characteristics will be collected using the Indiana Network for Patient Care database and compared between black and white patients. Concomitantly, a prospective cohort of black and white patients will be enrolled and surveyed to collect data on socioeconomic status and income adequacy, literacy, functional status, substance abuse history, social support, activation, and adherence. The primary outcomes are the receipt of curative therapies for HCC including liver transplantation, resection or ablation. The secondary outcome is mortality. Multivariable logistic regression models will be used to explore disparities seen in the primary and secondary outcomes.

RESULTS/ANTICIPATED RESULTS: These preliminary results include Indiana University Hospital (IUH) findings; a multicenter analysis is underway. The IUH cohort included 1,032 (86%) white and 164 (14%) black patients. Black and white patients had similar Model for End-Stage Liver Disease and Child-Pugh scores. There was a trend toward larger tumor size (5.3 cm vs. 4.7 cm; P = 0.05) in black patients; however, Barcelona Clinic Liver Cancer staging and Milan criteria were similar. Black patients were less likely to undergo liver transplantation than white patients—a disparity that was not attenuated (odds ratio [OR], 0.43; 95% confidence interval [CI]: 0.21-0.90) on multivariable analysis. Substance abuse was more frequently cited as the reason black patients within Milan criteria failed to undergo transplantation than white patients. Survival was similar between the two groups.

DISCUSSION/SIGNIFICANCE OF IMPACT: Racial differences in patient and tumor characteristics were small in our single center analysis and did not explain the disparity in liver transplantation. This analysis however only reflects 25% of patients diagnosed with HCC in the Indianapolis metropolitan, highlighting the need for a multicenter study. Higher rates of substance abuse in black patients within Milan criteria who failed to undergo transplantation suggest social factors contribute to this disparity and highlight the need for a prospective study that can explore these and other social factors.
OBJECTIVES/SPECIFIC AIMS: Qualitative approaches help explore poorly understood phenomenom, and are highly engaging, enabling both sides of an encounter greater connection. Historically, Deaf communities have been marginalized and oppressed, with their linguistic needs unrecognized and ignored. As a result, Deaf participants are rarely involved in clinical research. Like other marginalized communities, the Deaf community experiences health disparity compared with others, especially in low- and middle-income settings. The purpose of this project was to assess the feasibility of conducting qualitative research with Deaf Dominicans. METHODS/STUDY POPULATION: We implemented a partnered research process with 59 Deaf community members in the Dominican Republic, conducting preliminary thematic analysis through reviews of interviews and on-site debriefings. RESULTS/ANTICIPATED RESULTS: Participants were highly engaged with the Deaf-Deaf research encounters, indicating satisfaction with both the process and with the opportunity to communicate their needs and interests. Preliminary findings indicated Deaf Dominicans were highly engaged, confirming their interest, and often stated that they felt they were being listened for the first time. Indeed, some participants claimed that this was the first time they communicated their experiences as Deaf Dominicans and appreciated the opportunity to relate this experience to Deaf interviewers. DISCUSSION/SIGNIFICANCE OF IMPACT: This experience confirms that the Deaf Dominican community can be mobilized and will participate in Deaf-Deaf research.