Social Determinants of Health May be Associated with Post-Transplant Outcomes for Individuals with ALD

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BACKGROUND

- Early Liver transplant (ELT) is the only curative treatment in patients with severe acute alcoholic hepatitis (SAH). Socioeconomic factors such as sex, race, and insurance status have been shown to affect survival post-ELT.

AIM

- The objective of this study is to determine whether there are associations between social determinants of health and post-LT readmission within two years and return to dangerous drinking for patients with ALD.

METHODS

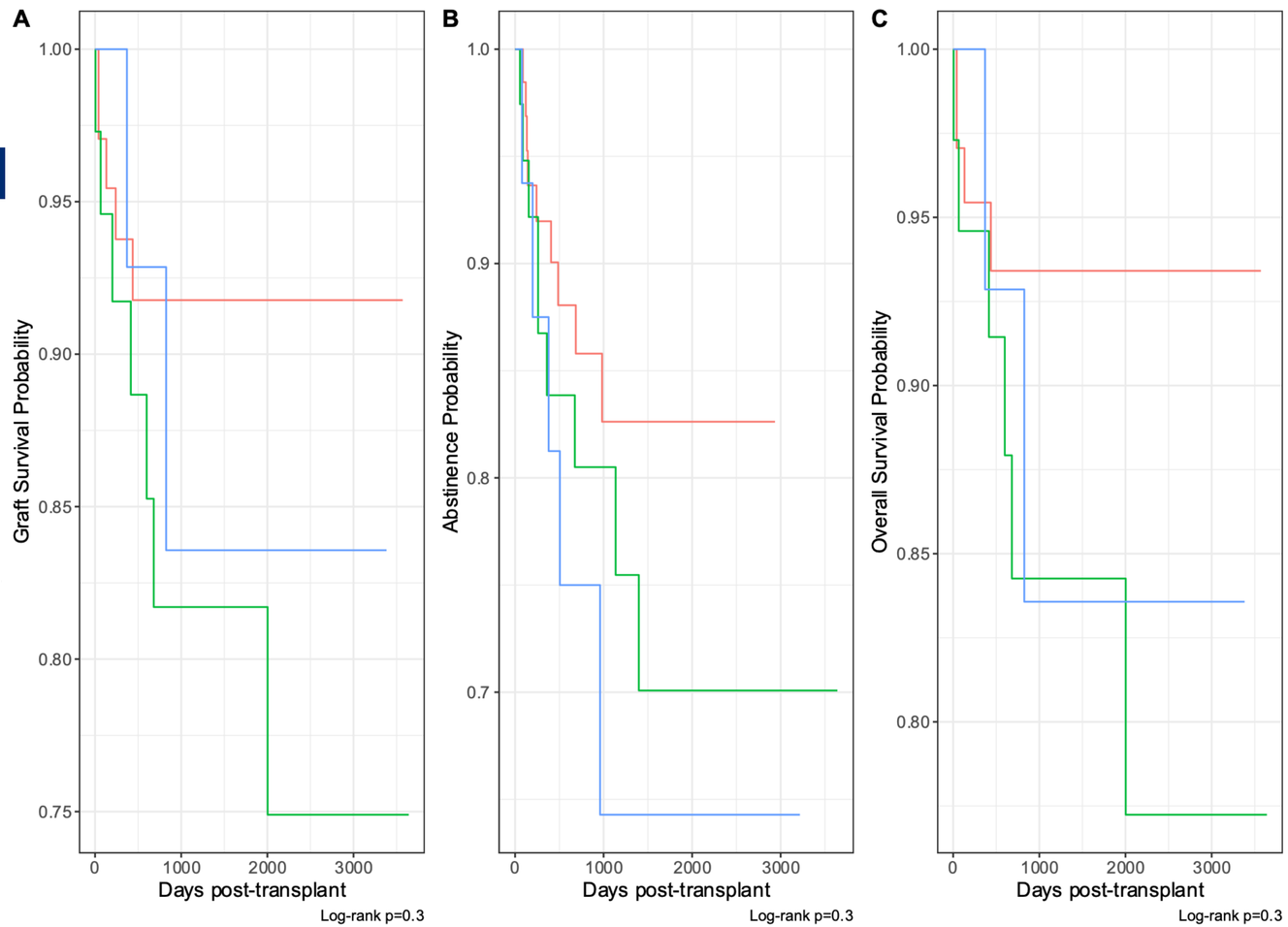
- Patients who received ELT at JHH between 12/1/2012-10/31/2022 (N=128) with follow-up data through 12/10/22.
- Area Deprivation Index (ADI) at the block group level was calculated using 2021 American Community Survey census data, and each patient assigned a percentile rank.
- Patients were stratified into 3 groups based on percentile, mildly deprived (ADI <30th percentile), moderately deprived (ADI 30th – 60th percentile) and severely deprived (ADI >60th percentile).
- Kaplan-Meier Estimates for Survival, Graft Loss and Relapse based on ADI category were determined and comparisons made among the ADI categories using a log-rank test.

RESULTS

Table 1. Multivariable Cox-proportional hazard regression assessing the risk of death, graft loss and relapse in different ADI categories.

ADI Category	Hazard Ratio - Death	Hazard Ratio – Graft Loss	Hazard Ratio – Relapse
< 30	Ref	Ref	Ref
30 - 60	2.40 (0.64, 9.07)	2.08 (0.63, 6.87)	1.97 (0.75, 5.21)
> 60	1.46 (0.22, 9.88)	1.07 (0.17, 6.76)	3.15 (0.99, 10.0)

Figure 1. Kaplan-Meier Estimates for probability of Graft Survival (A), Abstinence (B), and Overall Survival (C) during follow up



METHODS

- The risk of death, graft loss and relapse were assessed using multivariable cox-proportional hazards regression, adjusting for age, sex, race, MELD, number of days abstinent pre-transplant, number of drinks per day, and duration of alcohol use.

RESULTS

56.2% of patients were classified as mildly deprived, 30.5% as moderately deprived and 13.3% as severely deprived.

There were no statistically significant differences in the probability of survival, graft survival or abstinence during follow-up across ADI categories (Figure 1).

There were no statistically significant differences in the adjusted hazard ratio of survival, graft survival or abstinence when moderately and severely deprived patients were compared to the mildly deprived.

CONCLUSION

There is no statistically significant association between neighborhood level socioeconomic factors and post-ELT clinical outcomes such as death, graft loss.

However, our study is limited by sample size and further studies investigating this relationship are required.

The authors have no conflicts of interest to report.