

Himabindu Kolli MD¹, Rashmee Patil, MD²

¹Department of Internal Medicine, University of Texas Rio Grande Valley - Knapp Medical Center, Weslaco, Texas

²South Texas Research Institute, Edinburg, Texas

INTRODUCTION

- Advisory Committee on Immunization Practices (ACIP) guidelines recommend hepatitis B vaccination in all patients with chronic liver disease (CLD) including Non-Alcoholic Fatty Liver Disease (NAFLD)¹.
- Superimposed hepatitis B infection in those with CLD can have severe disease.
- Despite the availability of an effective vaccine, hepatitis B vaccination coverage is 30% among adults in the US².

AIM

- To identify potential gaps in Hepatitis B vaccination coverage among high-risk populations.
- We aim to look at the prevalence of hepatitis B susceptibility among patients with NAFLD.

METHODS

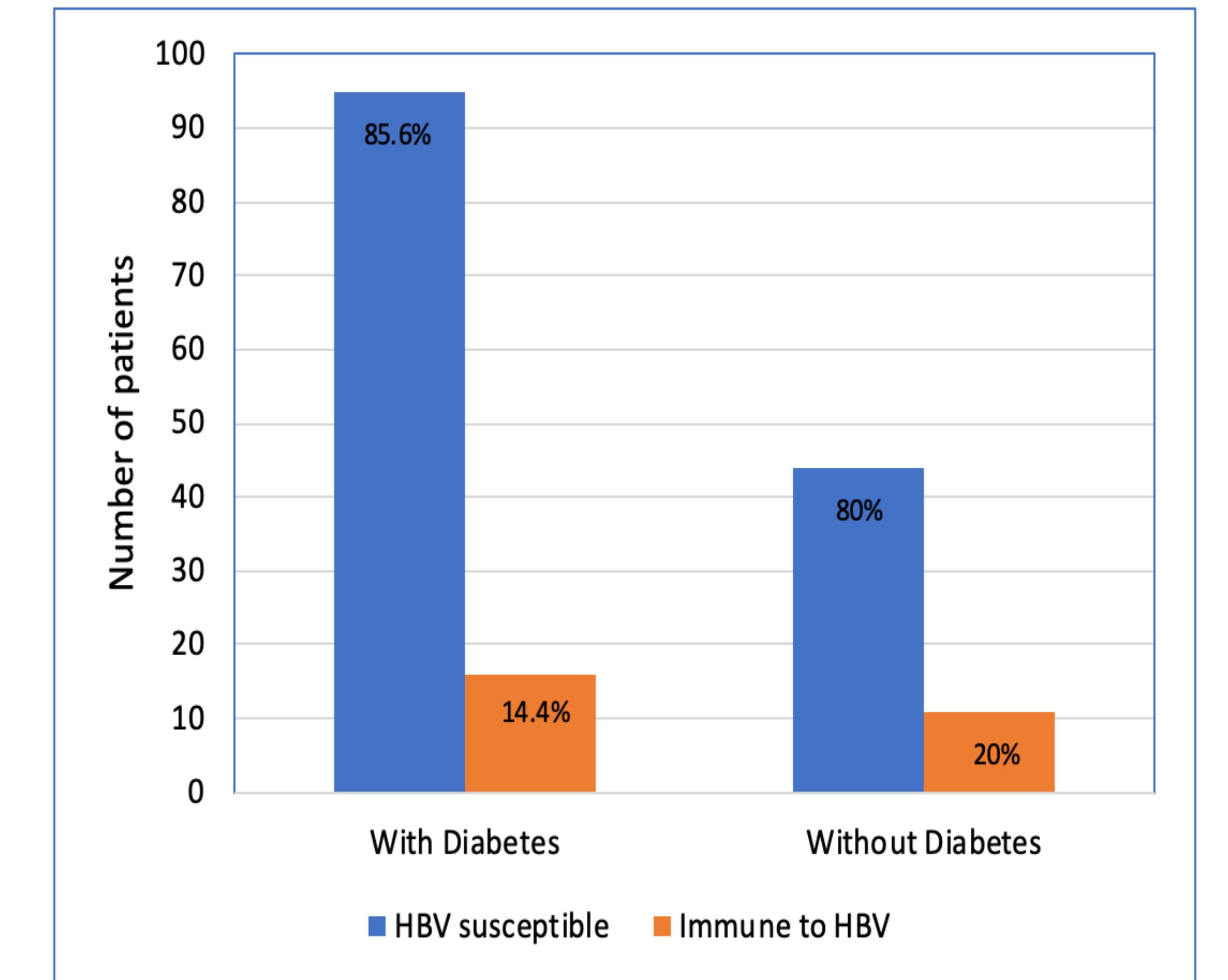
- A systematic review of online charts for patients who were referred to our liver research center from January 2019 to October 2021.
- Patients with NAFLD were identified and their demographics, medical history, HBV serologies and hemoglobin A1c were recorded.
- Other causes of fatty liver were excluded using detailed medical history and serological testing.
- For analysis, HBV susceptibility refers to non-reactive HBsAg, anti-HBc, and anti-HBs; immune due to prior vaccination is non-reactive HBsAg, anti-HBc and reactive anti-HBs.

RESULTS

Demographics of the cohort	n (%)
Total Number of Patients enrolled	166 (100%)
Hispanics	166 (100%)
Females	104 (62.6%)
With Hypertension	113 (68%)
With Hyperlipidemia	121 (72.8%)
With Type 2 Diabetes Mellitus	111 (66.8%)

- The age among subjects ranged from 24 - 74 years (Median 54 years).
- None tested positive for HBsAg or Anti-HCV.
- Overall, 83.7% were susceptible to Hepatitis B. 16.3% were immune due to vaccination.
- There was no significant difference in the prevalence of HBV susceptibility among patients with diabetes 85.6 % compared to patients without diabetes 80%.
- Immune status did not vary with age as younger patients (24-55 years) have similar immune status compared to older patients: 19% and 12% respectively.

Figure : Prevalence of HBV susceptibility among patients with NAFLD



DISCUSSION

- In this study, 83.7 % of patients with NAFLD were susceptible to HBV infection. Among those, the majority (66.8%) of them also have another coexisting comorbidity, i.e., diabetes which puts them at risk of getting severe hepatitis B infection.
- We found that even patients without diabetes have a higher prevalence of hepatitis B susceptibility (80%) which suggests a lack of immunization coverage plays a role rather than a suboptimal response alone.
- This study shows there is a gap in immunization coverage among NAFLD patients and a need for an HBV vaccination awareness strategy in the community.

REFERENCES

1. Weng MK, Doshani M, Khan MA, et al. Universal Hepatitis B Vaccination in Adults Aged 19–59 Years: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2022. *MMWR Morb Mortal Wkly Rep* 2022;71:477–483.
2. Lu, P.J., et al., *Surveillance of Vaccination Coverage Among Adult Populations -United States, 2018*. *MMWR Surveill Summ*, 2021. **70**(3): p. 1-26.

CONTACT INFORMATION

Himabindu Kolli
Himabindu.kolli@utrgv.edu