PREVALENCE AND CLINICAL OUTCOMES OF HEPATITIS B VIRUS SEROPOSITIVITY IN LYMPHOMA PATIENTS UNDERGOING RITUXIMAB-BASED THERAPY

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Introduction

Hepatitis B virus (HBV) poses a significant global health concern, with a considerable number of individuals being chronic carriers.

Immunosuppressive therapies for hematologic malignancies increase the risk of HBV reactivation, necessitating effective screening and prophylactic strategies.

While data on HBV prevalence and management exist globally, information from Lebanon, particularly among lymphoma patients receiving rituximab-based therapy, remains limited.

Aim

- Determine **HBV seropositivity prevalence** in lymphoma patients receiving rituximab-based therapy at the American University of Beirut Medical Center (AUBMC)
- Assess **healthcare provider compliance** with HBV screening guidelines
- Evaluate the **implementation of antiviral prophylaxis** in seropositive patients

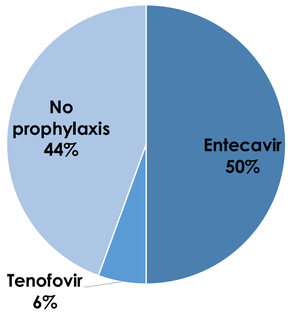
Methods

This epidemiological retrospective medical record review includes adult patients (≥18 years) newly diagnosed with lymphoma who received rituximab-based therapy at AUBMC between 2016 and 2022.

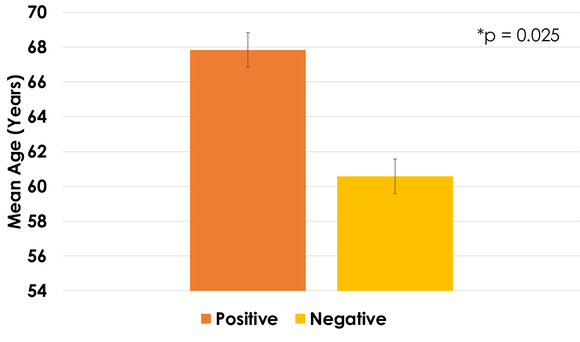
HBV seropositivity was defined by the presence of HbsAg, anti-HBc, or HBV DNA reactivity.

Data on serologic markers, antiviral prophylaxis, and patient characteristics were collected and analyzed using SPSS version 29.00

Antiviral Prophylaxis Among Anti-HBc Positive Patients (N=18)



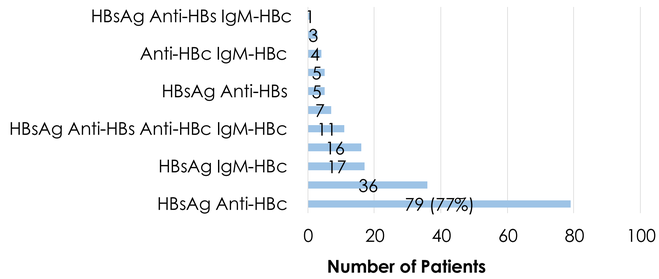
Age Comparison by Anti-HBc Status



Results

- Among 185 lymphoma patients, Hepatitis B core antibody (anti-HBc) serology results were available for 149 (80.5%). HBV **seropositivity prevalence**, based on anti-HBc reactivity, was **12%** (18/149).
- All patients tested negative for HbsAg.
- **Proper hepatitis B screening** with Hepatitis B antigen (HbsAg) and anti-HBc was performed in 77.3% of patients, reaches 92.4% if considering HBsAg testing alone.
- Entecavir **prophylaxis** was administered to 50% seropositive patients, and one patient received tenofovir (5.5%).
- Only one case of **HBV reactivation** (5.5% of seropositive patients) was recorded.
- **Repeat serologic testing** was performed in 80 of the 185 patients (43.2%), with a mean interval of 4.0 ± 4.37 months between tests.
- Patients with positive anti-HBc results were significantly older (mean age 64.7 ± 12.2 years) than their anti-HBc-negative counterparts (57.0 ± 17.9 years, p = 0.025).

Distribution of HBV Screening Tests



Summary

The prevalence of prior HBV exposure among lymphoma patients at AUBMC is higher than that reported in Western countries. Although screening rates are acceptable, there remains a need to enhance awareness regarding the importance of HBV screening.

Discussion

- In our cohort, **prior HBV exposure** among lymphoma patients was 12%, **higher than that reported in a large U.S. cancer cohort** (7.5% anti-HBc+, 8.9% including HBsAg-positive).[1]
- **HBV screening rates** in our study were acceptable (77.3%, reach 92.4% with HbsAg testing alone), exceeding U.S. rates (66%).[2]
- **Antiviral prophylaxis** was administered to 55.5% of seropositive patients, higher than the ~29% reported in a multicenter clinical trial assessing risk of HBV reactivation among patients with lymphoma.[3]
- Larger prospective studies are needed to validate these findings and optimize HBV management in this vulnerable population.

References

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