

Temporal Trends and Outcomes of Hepatitis B Screening in Patients Receiving Rituximab

Mahnur Haider¹, Dr. Gianina Flocco², Rocio Lopez³ and Dr. William D. Carey², (1)Internal Medicine, Cleveland Clinic, (2)Gastroenterology and Hepatology, Cleveland Clinic, (3)Quantitative Health Sciences, Cleveland Clinic

Abstract Text

Background:

Hepatitis B (HB) reactivation has been strongly associated with rituximab (R) therapy. Adherence to screening recommendations have been inconsistent (20-60%) and post screening management recommendations have evolved. Current guidelines advise prophylactic nucleoside analogs (NA) in patients at risk of HB reactivation. The temporal comparison of screening and post-screening interventions has not been reported. In this study we examined screening trends, post screening interventions and outcomes.

Methods:

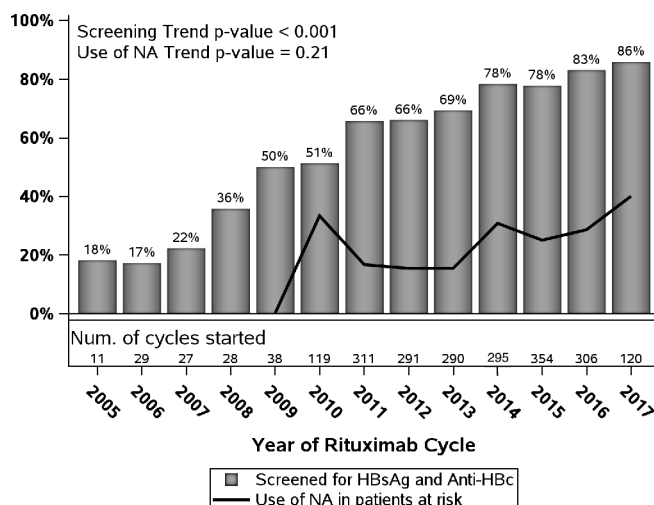
Patients who received R, from 2005 to 2017, at a tertiary care center were included in this retrospective study. Medical records were individually reviewed to confirm HB testing. Complete screening was defined as testing for HB surface antigen and core antibody prior to R. Patients with HB core antibody with or without HB surface antigen were considered at risk of HB reactivation. NA administration in those at risk was recorded. HB reactivation was defined as HB surface antigen reverse seroconversion and/or change in HB virus DNA: positive; $\geq 2 \log_{10}$ increase or $\geq 100,000$ IU/ml. Cochran-Armitage trend tests were used to assess trends across the years. Analysis was done using SAS and a $p < 0.05$ was considered statistically significant.

Results:

Among 2219 patients who received R, 1917 (86.4%) had some HB screening (1650 prior to R and 1569 complete screening). Eight (0.4%) cases of HB reactivation were identified leading to 2 (0.1%) deaths. In those screened prior to R, 1482 (90%) had either no exposure to HB or were immune (HB surface antibody positive). Pretreatment screening identified 87 (5.3%) patients at risk of reactivation: 2 HB surface antigen and HB core antibody positive; 65 HB core antibody and surface antibody positive and 20 HB core antibody positive. NAs were administered to 19/87 (23%) and 3 (3.4%) cases of HB reactivation occurred (none were on NA). Post R screening in 267 patients identified 12 (4.5%) at risk for reactivation. Two were started on NA. Reactivation occurred in 5 (41.6%), of these one while on a NA. Overall, 99 patients were at risk of HB reactivation. The overall incidence of reactivation was 8%: 3 in those completely screened versus 5 not screened prior to R; $p = 0.054$. The reactivated patients tested negative for HB surface antigen at the time of screening. Mortality in those who reactivated was 25% (2/8).

Conclusion:

1. HB screening prior to R increased nearly 5 folds in the past 5 years
2. Risk for reactivation was present in 5.3% and occurred in 8% of those at risk
3. HB reactivation mortality is high (25%)
4. There was a trend for more HB reactivation in those not screened prior to R
5. NA prophylaxis of those at risk for HB reactivation was under 40%
6. Future efforts need to address methods to ensure those at risk for HB reactivation receive NA prophylaxis



Disclosures

The following people have nothing to disclose: Mahnur Haider, Gianina Flocco, Rocio Lopez, William D. Carey