Burden and Independent Predictors of Readmissions in Portal Venous Thrombosis Hospitalizations

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INTRODUCTION

Portal vein thrombosis (PVT), generally considered rare is becoming increasingly recognized due to advanced imaging. Limited data exist regarding readmissions in PVT and its burden on the overall health care cost..

This study aimed to outline the burden of PVT readmissions and identify the modifiable predictors of readmissions.

METHODS AND MATERIALS

The National Readmission Database (NRD) was used to identify PVT admissions from 2016 to 2019. Using the patient demographic and hospital-specific variables within the NRD we grouped patients into two cohorts, 30-day and 90-day readmission cohorts.

We assessed comorbidities using the validated Elixhauser comorbidity index. We obtained inpatient mortality rates, mean length of hospital stay (LOS), and total cost of hospitalization as well as top causes of readmissions in both 30-day and 90-day readmission cohorts. Using a multivariate cox regression analysis, we identified the independent

METHODS AND MATERIALS – cont'd

predictors of 30-day readmissions.

Statistical significance was set at p of < 0.05.

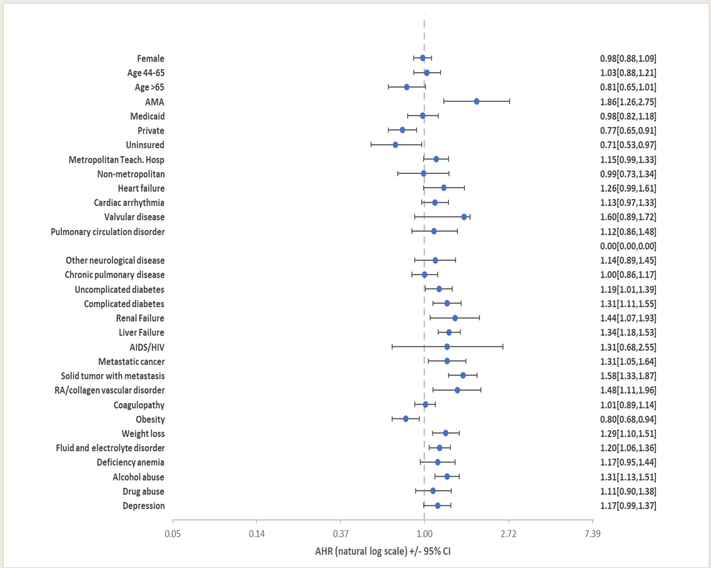

Figure 1: Independent predictors of 30-day readmission in PVT admissions

RESULTS

We identified 17,971 unique index hospitalizations of which 2971 (16.5%) were readmitted within 30 days.

The top five causes of readmission in both 30-day and 90-day readmission cohort were PVT, sepsis, hepatocellular cancer, liver failure and alcoholic liver cirrhosis.

The following were the independent predictors of 30-day readmission we identified during the study; discharge against medical advice (aHR of 1.86; p = 0.002); renal failure (aHR 1.44; p = 0.014), liver failure (aHR 1.34; p < 0.001), metastatic cancer (aHR1.31; p = 0.016), fluid and electrolyte disorders (aHR 1.20; p = 0.004), diabetes mellitus (aHR 1.31; p = 0.001) and alcohol abuse (aHR1.31; p < 0.001).

DISCUSSION

The readmission rate identified in this study was higher than the national average , hence targeted interventions addressing these factors may help reduce the overall health care cost