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2198. Increased Global Incidence and Altered Demographic Profile of Hepatitis Delta Virus (HDV)

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Session: 238. Hepatitis A, B, and C

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Background. A significant increase in the yearly incidence of hepatitis delta virus (HDV) diagnosis in hepatitis B virus (HBV) patient populations has been identified through analysis of global infectious disease datasets. Currently, HDV is classified as a non-notifiable infectious disease in many countries around the world. Kuschner *et al.* reported over 90% of HBV-positive patients are not being tested for HDV (2015). Together, the non-notifiable status of HDV and the noncompliance in testing potential HDV carriers presents a significant barrier in active surveillance of changes in the incidence of HDV. Therefore, a study was designed to evaluate the global incidence of HDV using datamining approaches.

Methods. Datasets containing yearly HDV and HBV incidence were utilized in this study including the National Health and Nutritional Examination Survey (NHANES) datasets and 14 additional datasets obtained through data-mining of global infectious disease datasets. These global datasets of reported yearly HDV and HBV diagnoses and demographic data ranging between 1999 and 2016 were analyzed.

Results. Epidemiological analysis of infectious disease datasets from 15 countries identified a significant increase in the incidence of HDV relative to HBV-positive patients starting in 2011. Within the United States, analysis of NHANES datasets identified an increase in the incidence of HDV diagnosis among HBV-positive individuals from 5% in 1999–2010 to 58% in 2016. Comparative analysis of the yearly reported incidence of HDV and HBV in 14 additional countries identified a significant increase in the incidence of HDV in the same time period. Modeling of the collective spatio-temporal profile of the increase in HDV incidence is suggestive of a shared common intermittent exposure pattern of infection. The fastest growing demographic in the HDV-positive populations is in patients greater than 65 years of age.

Conclusion. Our analysis identified a significant increase in the incidence of HDV diagnoses spanning three continents starting in 2011 and may be suggestive of an alteration in HDV transmission pattern. Active surveillance of HDV in the United States and worldwide is warranted to further define these observed changes in HDV incidence.

Disclosures. All authors: No reported disclosures.

2199. Antiviral Therapy Use in Hepatitis B-Infected Pregnant Women

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Background. Perinatal Hepatitis B Virus (HBV) transmission results in chronic disease in 90% of infected infants. Immunoprophylaxis reduces perinatal HBV infections by 95%. For women with viral loads >200,000 IU/mL, antiviral therapy during pregnancy is recommended to further reduce perinatal transmission. We sought to characterize antiviral therapy use in Hepatitis B-infected pregnant women.

Methods. The Centers for Disease Control and Prevention (CDC) provided auxiliary funding for five Perinatal Hepatitis B Prevention Programs. We analyzed data collected retrospectively from Hepatitis B-infected pregnant women in Georgia, Michigan, New York City, Philadelphia, and Wisconsin identified as having live births during April 2016–December 2017. We assessed maternal antiviral therapy use during pregnancy; HBV DNA levels included in our analysis were from the last result available prior to delivery for each woman.

Results. We identified 3,971 pregnant women with HBV infection; of these, 803 (20.2%) had information regarding prescription of antiviral therapy during pregnancy. HBV DNA levels were known for 1,907 women, of whom 9.1% ($n = 173$) had HBV DNA >200,000 IU/mL nearest delivery. Antiviral therapy was prescribed for 26.5% ($n = 213$) of women with information. Antiviral therapy was more commonly prescribed for women aged <30 years vs. ≥30 years (32.0% vs. 23.1%, $P = 0.0069$), Asian/Pacific Island race vs. White or Black (42.7% vs. 2.8% and 6.2%, respectively, $P < 0.0001$), and those whose HBV was monitored by a gastroenterologist/hepatologist vs. maternal fetal medicine or infectious disease specialist (55.1% vs. 10.3% and 36.4%, respectively, $P < 0.0001$). Tenofovir was prescribed for 92.9% of women prescribed antiviral therapy; lamivudine was prescribed for 3.8%.

Conclusion. Antiviral therapy was prescribed for one-fourth of Hepatitis B-infected women with information and was more commonly prescribed for women who were younger, Asian/Pacific Island race, and who received Hepatitis B care from a

gastroenterologist/hepatologist. Although these are preliminary findings and data collection is ongoing, opportunities may exist to improve guideline-concordant antiviral therapy use among Hepatitis B-infected pregnant women.

NOTE: Prevention of perinatal HBV transmission is an off-label use of antiviral therapy.

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This abstract has been withdrawn at the author's request.