LATE BREAKER ABSTRACTS

LB-3. A Case-Control Investigation of Guillain-Barré Syndrome During an Outbreak of Zika Virus Infection—Barranquilla, Colombia, 2015–2016

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Background. Guillain-Barré syndrome (GBS) is an autoimmune disorder characterized by weakness and sensory abnormalities due to peripheral nerve damage. Symptomatic Zika virus (ZIKV) infection is often characterized by fever and rash, and has been temporally associated with GBS. After the introduction of ZIKV in Barranquilla, Colombia in 2015, an increase in GBS cases was reported. We reviewed clinical data for GBS cases in Barranquilla and performed a case-control investigation to determine possible risk factors.

Method. We retrieved medical records of patients reported with GBS from October 2015–April 2016 in Barranquilla and determined the level of diagnostic certainty by applying the Brighton Collaboration Criteria. Individuals with a confirmed diagnosis of GBS (Brighton levels 1–3) were invited to participate in a case-control investigation. Two controls, matched to each case by sex and age group, were randomly selected from the same neighborhoods using modified WHO cluster survey methodology. We conducted in-person interviews and obtained medical and environmental exposure histories for the 2-month period prior to GBS onset. We also collected sera for ZIKV antibody testing. Conditional logistic regression was used to calculate odds ratios (OR) and 95% confidence intervals (CIs).

Result. A total of 87 patients were reported with GBS in Barranquilla during the evaluated period. Among those, 53 had confirmed GBS, representing an incidence of ~8 cases/100,000 population (expected incidence 1–2 cases/100,000). We enrolled and interviewed 79 controls and 40 out of the 53 confirmed cases. Thirty (75%) cases reported at least one antecedent symptom during the corresponding period versus 23 (29%) of controls. Cases had higher odds of having had fever (OR: 3.35, CI: 1.43–7.85), rash (OR: 4.0, CI: 1.51–10.45), or myalgia (OR: 3.71, CI: 1.29–10.68) as an antecedent symptom. Demographics and exposure histories did not differ between cases and controls. ZIKV testing of sera is underway.

Conclusion. We confirmed an increase in GBS incidence in Barranquilla compared to the expected baseline during our investigation. Cases had increased odds of having had fever, rash, or myalgia compared to controls, suggesting a possible ZIKV infection prior to the onset of GBS.

Disclosures. **All authors:** No reported disclosures.