SciTechnol
International Publisher of Science, Technology and Medicine

J Pulm Med

Shifted seasonality of respiratory syncytial virus in Cali, Colombia: Viral evolution or climate change?

Maria Aurora Londono-Avendano

Universidad del Valle, Colombia

Abstract

Syncytial respiratory virus is one of the main causes of acute respiratory illness in children. This virus is transmitted seasonally in temperate weathers but can circulate year-round in warmest climatological conditions. However, some seasonality has been associated to predominance of the RSV-A type in tropical countries. A few RSV-A variants have increased transmissibility, and their spread is believed to be one of the reasons that explain geographical differences in RSV circulation patterns. We evaluated if presence of RSV-A and RSV-B types in children, younger than two, is linked to clinical variables climatological events or in a warm city in Colombia. Although RSV-A predominated, we found no association between virus type and disease severity. Both viral types circulated in all seasons, without clear association to pluviosity, which differs from previous descriptions for RSV in the country. Sequence's analysis revealed circulation of variants with duplications in the glycoprotein G coding region, typical for genotypes believed to have higher infectivity. Although we found no evidence of increased severity, and epidemiological data, collected between 2014-2018 in the city, do not show a significant increase in RSV frequency, seasonality has almost disappeared. Novel genotypes of both types of RSV seem to be equally competent in transmission but evolving into variants able to persist in a broader range of environmental conditions.

Biography

Maria Aurora Londono-Avendano is a Biologist from Universidad de Antioquia, Colombia. She holds a PhD in molecular and postdoctoral experience in biotechnology and plant pathology. She joined the College of Medicine at Universidad del Valle in 2017 as assistant professor in the area of medical virology. Her current lines of research include: 1) diversity and evolution of respiratory syncytial virus, human papillomavirus and viruses from parasitic protozoa; 2) design and validation of isothermal tests and nanosensors for POC settings, and to implement real-time virus surveillance systems.

Citation: Maria Aurora Londono-Avendano, Shifted seasonality of respiratory syncytial virus in Cali, Colombia: Viral evolution or climate change?, COPD 2021, 8th International Conference on COPD and Lung Health, October 07-08, 2021, Page No-06