

Respiratory viruses in Cartagena, Colombia. August 2017- February 2019

Doris E. Gomez Camargo
University of Cartagena,
Colombia

Background: Cartagena (Colombia) is a tropical city in need of improved surveillance and quality of health services. Etiological agents of respiratory disease in this Caribbean region is lacking. The objective of this study was to characterize the infectious causes of acute respiratory disease in Cartagena.

Methods: Subjects who attended one of five health care centers in Cartagena were invited to participate in the study if they had fever during five days or less in duration and either one or more of the following symptoms: sore throat, cough, or runny nose. Upon obtaining an informed consent, clinical and epidemiological data and a nasopharyngeal swab sample

were collected. All samples were processed using the Biofire® FilmArray® respiratory panel using FilmArray 2.0® equipment (BiofireDX, USA) at UNIMOL laboratory, University of Cartagena.

Results: 177 subjects (100 women, 77 men; 3 months to 91 years old (yo)) were enrolled from August 2017 to February 2019. An infectious agent was detected in 67% of the participants (119/177; 68 women, 51 men), and a single agent was detected most frequently (85%; 101/119) while there were cases of co-detection of agents (15%; 18/119). The three main agents identified and the average age \pm SD, were: 40% human rhinovirus/enterovirus (HRV/ENT; 56/139, 12.6 ± 19.2), 11% respiratory syncytial virus (RSV; 15/139, 1.9 ± 2.4) and 9% human metapneumovirus (HMPV; 12/139, 12.5 ± 19.5). Viral co-detections included HRV/ENT+RSV (5/18), HRV/ENT+HMPV (4/18) and HRV/ENT+ adenovirus (2/18). The

most frequently detected viruses by age group were: RSV and parainfluenza virus 3 (PIV3) in children under 5yo, HRV/ENT, influenza A-H3 and influenza B in children 6-17yo, and influenza A-H3, Coronavirus OC43 and PIV3 in 18-64yo.

Conclusions: Co-detections were not frequently detected. Unexpectedly, HRV/ENT was detected in the majority of participants with respiratory disease, more than what has previously been reported from Colombia.

Biography

Doris E. Gomez Camargo is the Head of the Tropical Medicine Doctorate and the Research group UNIMOL (Unidad de Investigacion Molecular) classified as A1 by the National Administrative Department of Science Technology and Innovation (COLCIENCIAS) placed at the University of Cartagena at the Colombian Caribbean Region. She has published more than 50 papers in well-respected journals, and served on several Committees of Education at the National Education Ministry in Colombia. Her fields of research include: Molecular Biology, Infectious Diseases, Tropical Medicine, Microbiology, Public Health.

dmtropical@unicartagena.edu.co