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## Guillain-Barré outbreak study in Ensenada, Baja California, Mexico

María Trinidad Romero Salas, Franco Teresa, Francisco Arzate, Armida García, Alexandra Terríquez Chávez, Néstor Hernández and Sonia Pérez  
Institute of Public Health Services, Mexico

**Objective:** Aim of this study is to identify the causal agent in the symptoms of Guillain-Barre in Ensenada, Baja California, and identify the factors associated with the increase of its presence in the city.

**Methodology:** An epidemiological study, risk inquiry and clinical assessment was carried to the each of the eleven reported cases of Guillain-Barré symptoms in the city of Ensenada from January to March 2017, an electromyography was carried out as well as the processing samples of serum, CSF fluids, feces, saliva, urine and blood in order to search for traces of Zika, saxitoxin, *Campylobacter*, and Enterovirus. A database and analysis of the clinical presentation was carried out.

**Results:** Three of the eleven cases showed positive traces of Zika virus (23%), five cases reported positive traces of *Campylobacter* (38%), one case showed positive, non-polio Enterovirus (7%) and none resulted in saxitoxin. The more common symptoms associated with limb paralysis were, muscle pain, arthralgia, abdominal pain and cephalalgia, as well as diarrhea in 60% of the cases, although the association between symptoms and the results, due to the number of cases, did not show a strong enough association. The cases with positive Zika were clinically differentiated from the rest given a longer recuperation process and continuation of muscle pains.

**Conclusions:** The *Campylobacter jejuni* was established in the main etiology for the outbreak as it is responsible of the exponential growth in the presence of the Guillain-Barré symptoms cases, coincidental with the proximity of sewage as well as the confirmation of the local circulation of the Zika virus in the State. Control measures were established in order to control the exposure to untreated wastewater and vector control.

### Biography

María Trinidad Romero Salas graduated from the Autonomous University of Baja California, School of Medicine, Tijuana Campus, as General Practitioner. She get into the Secretary of Health in 2000 to the Department of Epidemiology. She is Responsible for the Epidemiological Surveillance Program for Vaccine-Preventable Diseases since 2000 at the Institute of Public Health Services of the Baja California State, in the Ensenada Sanitary Jurisdiction. (ISESALUD). She has done Diploma in Epidemiology by INSP (National Institute of Public Health February-June 2012) and in Epidemiology Applied by COLEF (College of the North Border April-August 2014). She has also done Epi Info course by COLEF the North Border April 2014. She has completed her masters from the Center for University Studies Xochicalco, Ensenada Campus, in Public Health, with terminology in Epidemiology

triny911@hotmail.com

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