Campylobacter: Asymptomatic campylobacteriosis and Guillain Barré syndrome in Mexico

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The etiology of Guillain Barré syndrome is diverse and can be classified as infectious and non-infectious. The first is due to various viral and bacterial agents that mainly affect the respiratory and digestive tracts, while non-infectious causes include vaccinations, trauma, surgeries, etc.

Regarding infections, these precede between 40 to 70% of the acute neurological picture, with *Campylobacter* being responsible for up to 31% of cases. Recent outbreaks in the post-Zika era have been documented in Peru, where campylobacter is also the main etiological agent [1].

In Mexico there have been important outbreaks of Guillain Barré Syndrome, however, they have not been fully studied. There is a binational report between Mexico and the United States in which 26 patients were jointly studied in 2011, identifying *Campylobacter* as the main agent. In Veracruz, a state in southeastern Mexico, there was an outbreak of the disease in 2010 that was not properly studied in terms of etiological agents, with 33 cases and 2 deaths [2,3].

With the arrival of chikungunya and Zika in 2015, the risk of acute neurological syndromes due to viral neurotropism was alerted, however, in this Mexican region we studied the cases of Guillain Barré from 2016 to 2019, which were 40 in total, finding various causal agents (dengue, Zika, chikungunya, enterovirus, hepatitis B, and herpes) but highlighting the higher incidence of cases due to *Campylobacter* (33% of all cases), even in patients without acute intestinal symptoms [4].

After this last evidence and the high suspicion of probable asymptomatic Campylobacter infection, it was decided to study the presence of *Campylobacter* in fecal samples from healthy asymptomatic patients in the general population, finding an incidence of 3% in 200 subjects studied and species of both *Campylobacter jejuni* and *Campylobacter coli* [5].

Since the publication in 2012 of the report the global view of campylobacteriosis, endorsed by the Food and Agriculture Organization of the United Nations (FAO), the World Organization for Animal Health (OIE), and the WHO Collaborating Center at the University of Utrecht, no another similar report has been written, however, there has been concern about campylobacter outbreaks with strains resistant to antibiotics evidenced by the CDC, which force us to have closer surveillance in the event of outbreaks of this pathogen to avoid potential complications and trying to break the chain of transmission from aspects such as food health surveillance, mainly from the poultry industry, which has been one of the main promoters of the spread of these pathogens [6].

On the other hand, it is important to monitor asymptomatic carrier states (asymptomatic campylobacteriosis) that could subsequently favor acute neurological outbreaks.

Conflict of interest

The author has declared that there is nothing to declare.

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