

Capacity to adhere to and invade human epithelial cells, as related to the presence of virulence genes in, motility of, and biofilm formation of campylobacter jejuni strains isolated from chicken and cattle

Farfán, Mauricio

Lártiga, Natalia

Benavides, María Belén

Alegría-Morán, Raúl

Sáenz, Leonardo

Salcedo, Cristal

Lapierre, Lisette

© 2019, Canadian Science Publishing. All rights reserved. *Campylobacter jejuni* is a zoonotic pathogen transmitted through the "farm to fork" route. Outbreaks are generally associated with the consumption of chicken meat; however, dairy cows, birds, wild and domestic food animals, and pets are other important sources. Currently, there are not enough data comparing the virulence of strains isolated from these reservoirs. In this study, we compared *C. jejuni* strains isolated from broiler chickens and dairy cattle by determining their ability to adhere to and invade in vitro human colonic epithelial cells in the T84 cell line with their motility, formation of biofilms, and presence of eight virulence genes. A Wilcoxon Rank Sum test was performed to establish the relationship between presence of the studied genes and cellular invasion and adhesion, as well as differences between the animal species of origin of the isolate. A Spearman correlation was performed to assess the relationship betwe