

## **Título PRESENCE OF *CAMPYLOBACTER JEJUNI* AND *CAMPYLOBACTER COLI* IN SWINE SAMPLES AND CHICKEN MEAT COMMERCIALIZED IN THE STATE OF RIO DE JANEIRO**

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### **Resumo**

Intestinal campylobacteriosis is the leading bacterial zoonosis worldwide. The main causative agent of this foodborne acute gastroenteritis are *Campylobacter jejuni* and *Campylobacter coli*, common colonizers of several animals' intestines, especially in chickens, swines and turkeys. Humans are exposed to these pathogens through the consumption of contaminated meat produce as well as other food vehicles. This study evaluated the presence of *Campylobacter* spp. in swine raised for slaughter and in chicken giblets marketed in the state of Rio de Janeiro. In order to do that, forty cooled samples of chicken cuts and giblets exposed to human consumption were collected, beside one hundred samples from fecal material of swine from slaughterhouses. Swabs were used to collect the fecal material. *C. jejuni* and *C. coli* strains were identified by Multiplex-PCR using C1/C4 and Pg3/Pg50 primers. The antimicrobial resistance profile was determined by disk diffusion method. Results revealed the presence of *C. jejuni* in 5 % of the chicken samples. *C. coli* was detected in 33 % of the chicken samples and in 28 % of the swine material samples. This study showed that all strains were resistant to cefoxitin, cephalotin and trimethoprim-sulfamethoxazole. Tetracycline also showed 100% resistance for swine strains, while for chickens was 47%. The swine strains showed greater resistance than chicken strains 58% and 7% to ampicillin and 96% and 53% to ceftriaxone. For the quinolone such as to ciprofloxacin, 67 % of chicken strains and 88 % of swine strains were resistant while to nalidixic acid 67% of the chicken and 91% of the swine were resistant. The study also observed that all the strains were susceptible to chloramphenicol and imipenem. In the case of gentamicin and erythromycin 100% of the chicken strains were susceptible, on the other hand for swine strains were 92% and 25% respectively. The presence of antibiotic resistant strains in food chain compromises the drug treatment for campylobacteriosis, since these antibiotics are used in the most severe cases of the illness. The results indicate that the consumption of meat poorly cooked poses as a potential risk of campylobacteriosis for population. This worrying fact addresses to the necessity of adopting preventive measures in the production system and good practices of industry fabrication in order to minimize the product contamination and reduce the risk for the consumers.

**Palavras-chaves:** *Campylobacter*, swine, chicken meat, commercialized, antibiotic resistance