

Título: ANTIBIOTIC RESISTANCE IN *CAMPYLOBACTER JEJUNI* AND *CAMPYLOBACTER COLI* STRAINS ISOLATED FROM CHILDREN IN ONE HOSPITAL IN RIO DE JANEIRO, DURING 1996-2014

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Resumo:

Campylobacter is an important food-borne zoonotic pathogen, and one of the leading causes of human food-borne illnesses (Campylobacteriosis) worldwide, with *Campylobacter jejuni* and *Campylobacter coli* being the most common species isolated in human infections. When antimicrobial treatment is required, the drugs of choice are the macrolides and fluoroquinolones. In the last years, antimicrobial resistance, including multidrug resistance (MDR), has been frequently reported in *Campylobacter* spp. In this study, we evaluated the antibiotic resistance profiles of the *C. jejuni* and *C. coli* strains isolated from hospitalized children in one hospital in Rio de Janeiro, in the period of 1996- 2014. Were isolated a total of 59 *Campylobacter* spp. strains, being 48 (81%) *C. jejuni* and 11(19%) *C. coli*, which were confirmed by PCR (Polymerase Chain Reaction) method. The methodology used for the antibiotic susceptibility testing was the disk diffusion method and the inhibition zone diameter was interpreted according by the Clinical and Laboratory Standards Institute. This study showed that 100% of all strains were resistant for cefoxitin and cephalothin. In *C.coli* strains also showed 100% resistance to trimethoprim-sulfamethoxazole while for *C.jejuni* were 94%. For the quinolone *C. jejuni* showed greater resistance than *C.coli* strains 46% and 36% for nalidixic acid, and 48% and 9% for ciprofloxacin respectively. *C. jejuni* had resistance to both gentamicin and tetracycline of 50% while for *C.coli* were 36% and 27% respectively. The study also observed that *C.coli* had higher resistance than *C.jejuni* strains to ceftriaxone and ampicillin 100% and 63% respectively, while for *C. jejuni* were 92% and 38% respectively. All the strains had susceptibility to chloramphenicol in *C.coli* while 4% was resistance to *C. jejuni*. For the macrolides, all the strains showed susceptibility to erythromycin. In this study, high levels of resistance to gentamicin, tetracycline, nalidixic acid and ciprofloxacin was observed but no resistance to erythromycin was found. In conclusion, variation in susceptibility observed was important because showed multidrug resistance profiles in Brazilian strains of *Campylobacter* isolated from children who were hospitalized and that may need antibiotic treatment options.

Palavras-chaves: *Campylobacter jejuni*, *Campylobacter coli*, children, hospital and Rio de Janeiro