

## RESEARCH NOTE

### A POSSIBLE MECHANISM OF MACROLIDE RESISTANCE AMONG MULTIPLE RESISTANT *CAMPYLOBACTER JEJUNI* AND *CAMPYLOBACTER COLI* ISOLATED FROM THAI CHILDREN DURING 1991-2000

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**Abstract.** A total of 495 *Campylobacter jejuni* and 122 *C. coli* isolated from Thai children were screened for macrolide (erythromycin and azithromycin) resistance by disk diffusion assay. Minimum inhibitory concentrations for erythromycin, azithromycin, nalidixic acid, ciprofloxacin, tetracycline, streptomycin, gentamicin and chloramphenicol were further determined for these macrolide-resistant *Campylobacter* isolates. Presence of known point mutations resulting in reduced susceptibility to macrolides was investigated by PCR and DNA sequencing. Seventeen percent (23/122) of *C. coli* and 2.4% (12/495) of *C. jejuni* isolates were resistant to macrolides. By sequencing domain V of the 23S ribosomal DNA from all 35 macrolide-resistant isolates, a known point mutation of 23S rRNA associated with reduced susceptibility to macrolides was detected in all isolates except one. Among the macrolide-resistant isolates, all were multiply resistant to nalidixic acid and ciprofloxacin, of which the latter is the preferred antimicrobial used for diarrheal treatment in Thailand. Furthermore, most macrolide-resistant isolates were also resistant to tetracycline and streptomycin. The spread of macrolide and quinolone resistant *Campylobacter* should be monitored closely in Thailand and elsewhere as these antimicrobials are preferred drugs for treatment of diarrhea.

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