Prevalence of multidrug resistance Campylobacter jejuni and Campylobacter coli in chickens slaughtered in selected markets, Malaysia

ABSTRACT

The objectives of this study were to determine the occurrence of Campylobacter spp. in live chickens sold at wet markets in Selangor, Malaysia and the multidrug resistance (MDR) profiles of the isolates. Cloacal swabs were taken from the chickens before slaughter and their caecal mucosae were swabbed after slaughter. Of the 90 chickens examined, 68 (75.6%) were positive for Campylobacter. Campylobacter were recovered from caecal swabs (53/90) and cloacal swabs (34/90) and Campylobacter coli (46 isolates) were identified slightly more than Campylobacter jejuni (41 isolates), but these differences were not significant (p<0.05). The most frequently observed resistance was to cephalothin (95.5%), followed by tetracycline (80.8%), erythromycin (51.4%), enrofloxacin (42.4%) and gentamicin (24.4%). Multidrug resistance (resistant to four or more antibiotics) was detected in 35.3% isolates. Campylobacter jejuni showed nine resistance profiles and the most common was to gentamicin-eryhtromycin-enrofloxacin-cephalothin-tetracycline (32.4%) combination while C. coli showed six profiles, with cephalothin-tetracycline (32.2%) combination being most common.

Keyword: Chickens; Campylobacter; Multidrug resistance