Studies on antibiotic sensitivity and prevalence of *Campylobacter jejuni*, in chicken and milk.

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ABSTRACT

The term "Campylobacter" is used to refer to a range of fastidious, mainly spiral or curved - rod shaped bacteria that includes related genera *Campylobacter, Arcobacter* and *Helicobacter* among others. Within the genus *Campylobacter, C. jejuni* is considered the most common cause of sporadic bacterial enteritis worldwide with a frequency that often rivals Salmonella and Shigella associated diarrhoeas.

Raw milk and chicken have been shown to be important vehicles in these infections.

The aims of this study were to investigate the prevalence of *Campylobacter jejuni* in foods and detection of its sensitivity to the commonly used antibiotics.

In the present study, *C. jejuni* was isolated from food using conventional culture technique under microaerophilic conditions.Identification was performed following the morphological and biochemical tests. A reference strain of *C. jejuni* (NC 11168-05) was subjected to all tests together with test isolates and the results were compared. The antibiotic susceptibility of the test isolates to the following antibiotics namely, Nalidixic acid, Tetracycline, Neomycin, Vancomycin, Penicillin, and Streptomycin were carried out. The Baur- Kirby antibiotic susceptibility test was carried out to detect the antibiotic susceptibility of *Campylobacter jejuni* strains isolated.

The prevalence of *Campylobacter jejuni* in raw chicken and milk was studied. *C. jejuni* was recovered from 8 samples out of 30 samples (26.67%) of the total raw chicken. Of the 20 samples of raw milk examined, 11 samples (55%) were found to contain *C. jejuni*. All isolates of *Campylobacter jejuni* of the present study were susceptible to Nalidxic acid, but not to other five antibiotics tested.

This is the first report on the isolation of *C. jejuni* from dairy products and chicken in SriLanka.