Occurrence of Campylobacter jejuni in chicken meat and chicken meat products

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Abstract:

Abstract Background: Campylobacter jejuni is a Gram negative, microaerophilic, non-spore-forming, motile and spiral-shaped rod which is able to cause foodborne infection in human called campylobacteriosis. Aim: This study was carried out to determine the occurrence of C. jejuni in chicken meat and chicken meat products. Methodology: A total of 163 samples of chicken meats and chicken meat products including 35 chicken meat samples and 128 chicken meat products were investigated for the presence of C. jejuni. To isolate the bacterium, the samples were initially enriched in Bolton broth medium and subsequently transferred to Campylobacter Charcoal Deoxycholate Agar (CCDA). The biochemical tests were used for identification of isolated bacteria at species level. Then these isolates were subjected to further confirmation by Polymerase Chain Reaction (PCR) by targeting mapA gene. Results: Four fresh chicken breast samples, two fresh chicken thigh and one frozen minced chicken meat were positive for C. jejuni. Conclusion: In this study, examined fresh chicken breast, fresh chicken thigh and frozen minced chicken meat were found contaminated with C. jejuni, so consumption of undercooked or cooked contaminated chicken and chicken products presented a possible risk for consumers. Hence, it is recommended to implement effective hygienic preventive measures to prevent campylobacteriosis in human from chicken meat.

Keywords:

Key words: Campylobacter jejuni, foodborne infection, chicken meats, chicken meat products.

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