OCCURRENCE AND NUMBERS OF CAMPYLOBACTER SPP. ON WINGS AND DRUMSTICKS OF BROILER CHICKENS AT THE RETAIL LEVEL IN LITHUANIA

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Summary. The present study was designed to investigate the occurrence and numbers of Campylobacter spp. on broiler chicken wings and drumsticks at the retail level of the three main poultry meat producers in Lithuania. Samples of chicken wings and drumsticks were collected of each poultry meat producer by visiting randomly selected retail shops once a week from March till October, in 2009. During each visit to a shop, samples of wings and drumsticks were bought without giving a warning. A total of 87 chicken wings and 87 drumsticks samples were collected and tested for Campylobacter spp. Thermophilic Campylobacter spp. were isolated by both direct inoculation on mCCDA selective medium and by selective enrichment in Bolton enrichment broth. Multiplex-PCR method was used for detection and identification of thermophilic Campylobacter species.

Our findings showed that overall 46.55% (81 out of 174) of the collected samples were contaminated with campylobacters. Twenty nine samples out of 81 were confirmed as positive only after enrichment procedure. C. jejuni has been found in 69.12% of the tested samples and C. coli in 13.23%, and both species together in 17.65%, respectively. The mean number of Campylobacter bacteria detected on wings at the retail was 1.99 log10 CFU/ml and on drumsticks 2.11 log10 CFU/ml.

This study shows high occurrence of broiler meat contamination with Campylobacter spp. at a retail level in Lithuania. Therefore the risk for consumers should be evaluated and an improvement of control measures at poultry production and retail level should be considered to reduce the risk for consumer’s infection with Campylobacter spp.

Keywords: Campylobacter spp., chicken, retail, occurrence, contamination.