# **Titre d’article**: Prevalence, seasonality, and antimicrobial resistance of thermotolerant Campylobacter isolated from broiler farms and slaughterhouses in East Algeria

**Abstract :**

Aim: The current study was carried out to determine the prevalence, seasonality, and antimicrobial profile of thermotolerant Campylobacter isolated from broiler chickens in Batna, East Algeria, from June 2016 to June 2018. Materials and Methods: A total of 960 samples, including 480 cloacal swabs, 240 cecal contents, and 240 neck skin samples collected from 6 poultry farms and 12 slaughterhouses, were included in this study. After isolation and identification, susceptibility to seven antimicrobial agents was tested by the disk diffusion method. The seasonality of Campylobacter infection at broiler farms was statistically analyzed. Results: The data showed that 65%, 55%, and 70% of the cloacal swab, neck skin, and cecal content samples were contaminated with thermotolerant Campylobacter strains, respectively (p with peak occurrence in summer. All of the isolates were susceptible to gentamicin and resistant to ampicillin and amoxicillin/clavulanic acid, while 83.3% of them were resistant to erythromycin. Interestingly, 16 different resistance profiles were noted, with the combination of “ampicillin, amoxicillin/clavulanic acid, chloramphenicol, erythromycin, and tetracycline” being the most common, identified in 20.7% of isolated strains. Conclusion: This study demonstrates the presence of a high contamination rate of multidrug-resistant Campylobacter in farms and slaughterhouses in East Algeria. These findings underscore the need to apply strict control measures to avoid any associated public health hazard among Algerian consumers. This initial finding of the contamination of poultry with this zoonotic pathogen in East Algeria suggests the value of periodic comprehensive evaluation of associated disease in poultry as well as in humans in this region.