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Webinar

Prevalence, risk factors analysis, antimicrobial resistance profile of campylobacter species, isolated from food animals in district Okara.

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Abstract

Campylobacter, one of most prevalent bacteria, that is responsible for gastroenteritis in human worldwide. Campylobacter infections are usually self-limiting but can be lethal among immunocompromised persons. These infections results from ingestion of contaminated food and water, depending upon susceptibility of individuals and virulence of infecting strain. The prevalence of these bacteria is highly diverse, present worldwide. Increase in antibiotic resistance among these bacteria is recognized as emerging public health problem. Current study is design at university of veterinary and animal sciences Lahore to analyze the risk factors associated with Campylobacteriosis, prevalence and antimicrobial resistance profiles in Campylobacter species isolated from food animals in district Okara, Pakistan from October 2020 to February 2021. A total of 300 swab samples were collected from poultry, beef and mutton (one hundred from each) only 4 isolates were declared positive for Campylobacter species (*C. Jejuni* and *Coli*) through PCR after proceeding using ISO 10272-1:217(E) method for isolation, providing 1.3% prevalence. Prevalence of Campylobacter species only observed in poultry meat 1.3%. It is very low as compared to studies conducted earlier in Pakistan. The overall percentage of antimicrobial resistance of Campylobacter species to different antibiotics varied from 0–100%. Among the isolated strains,

Campylobacter indicated highest resistance against Penicillin-G, Amoxicillin, and Tetracycline 100% (4/4), followed by Cefotaxime, Tylocine and Enrofloxacin 75%, Clindamycin, Nalidixic acid 50% and lowest resistance was observed against Streptomycin and Doxycycline that is only 25%. So, drug of choice for Campylobacter related infections is doxycycline and streptomycin. The significance relation obtained for four variables that include eating during dealing meat, contact of excreta with meat, purchase and age of birds. The results indicate that prevalence is very low but higher microbial resistance. This study emphasizes the need to control use of drugs both in livestock and human to control antimicrobial resistance.

Biography

My name is Muhammad Amjad and I expect to complete my master degree (M. Phil.) in April 2021 at department of Epidemiology and Public Health from University of Veterinary and Animal Sciences (UVAS) Lahore. I have a basic degree of Doctor of Veterinary Medicine (DVM) from University of Veterinary and Animal Sciences Lahore in 2013. I have sound knowledge of infectious and zoonotic diseases, epidemiological and bacteriological techniques, PCR, research conduction, sampling and antimicrobial resistance related to your research interests.