Prevalence and Antibiotic Resistance Patterns of Salmonella from Retail Dressed Chickens (Gallus gallus domesticus) in Wet Markets of Cavite, Philippines

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Abstract : This study determines the prevalence of Salmonella from retail dressed chickens using chicken wings as samples in five wet city markets of Cavite, Philippines, compares the prevalence among the markets' samples and determines the serotypes and antibiotic resistance pattern of Salmonella isolates. The overall prevalence of Salmonella in five wet markets in Cavite was 13.33 percent. Samples from Bacoor yielded the highest prevalence rate of 26.6 percent, followed by Imus (23.3%), Dasmarinas (11.6%), Trece Martires (3.3%) and Tagaytay (1.6%). Seven serotypes (serogroups B, C2, C3, D1 and E1) were isolated which include Salmonella weltevreden, S. derby, S. newport, S. albany, S. typhimurium, and S. enteritidis. Salmonella weltevreden was the predominant serotype while S. typhi and S. albany were the least common. Among the 15 antibiotics tested, resistance to ampicillin, tetracycline, and cephalexin was exhibited by all the isolates while 5 percent showed resistance to gentamicin, 2.5 percent to streptomycin and 12.5 percent to nitrofurantoin. One isolate was resistant to four antibiotics whereas most isolates of S. enteritidis were resistant to 2 to 5 antibiotics. Four resistance patterns were recorded. This study revealed the emergence of multidrug-resistant Salmonella serotypes from chicken meat in Cavite, Philippines.

Keywords : antibiotics, dressed chickens, resistance patterns, Salmonella serovars
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