Prevalence and Antimicrobial Resistance of Salmonella spp. Isolated from Pigs at Slaughterhouses in Northeast of Thailand

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Abstract : The objective of this study is to determine the prevalence and antimicrobial resistance pattern of Salmonella spp. isolated from pigs at slaughterhouses in the northeast of Thailand. During 2015-2016, all samples were isolated and identified by ISO 6579:2002. A total of 699 samples of rectal swab were collected and isolated for the presence of Salmonella. Salmonella was detected in 275 of 699 (39.34%) samples. 24 serovars were identified in the 275 isolates. The most prevalent serovars were rissen (36.97%), S. enterica ser.4,5,12:i: (25.35%) and typhimurium (21.33%). In this study, 76.30% of the isolates were resistant to at least one antimicrobial drug and 38.39% were multidrug resistant. The highest resistances were found in ampicillin (69.20%), tetracycline (66.35%), sulfamethoxazole/trimethoprim (35.55%) and chloramphenicol (9.00%) The results showed high prevalence of Salmonella spp. in pigs and high antimicrobial resistance among the isolates, and indicated the need for monitoring program to control Salmonella contamination and reduce the dissemination of antimicrobial resistance in pig supply chain.

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Keywords : prevalence, antimicrobial resistance, Salmonella spp., pig

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