

Antibiotic Resistant *Salmonella* spp., *Listeria monocytogenes*, *Staphylococcus aureus*, and *Campylobacter jejuni* Isolated from Poultry Processing in Korea

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Introduction

Food-borne diseases cause deleterious problems in public health and the major etiology is due to contamination of livestock products. Antimicrobial agents are administered to food animals in an effort to control the diseases and improve feed efficiency in livestock industry. Development of resistance in food-borne bacteria constitutes a public health risk, primarily through the increased risk of failure of antibiotic therapy in human medicine

Materials and Methods

The disk diffusion method was used to measure the susceptibility of selected antimicrobial agents. The antimicrobial susceptibilities of 46 isolates of *Salmonella* spp., 72 *Listeria monocytogenes*, 170 *Staphylococcus aureus*, and 41 isolates of *Campylobacter jejuni* were measured.

Results and Discussion

19.6%(9/46) of *Salmonella* spp. isolates were multi-drug resistant (ampicillin, chloramphenicol, streptomycin, triple sulfa, tetracycline). 86.1%(62/72) and 50%(36/72) of *L. monocytogenes* were resistant to tetracycline and ciprofloxacin, quinolone agent, respectively.

90.0%(153/170), 52.4%(89/170), and 4.1%(7/170) of *S. aureus* were resistant to tetracycline, penicillin, and vancomycin, respectively. 100.0%(41/41), 97.6%(40/41), 95.1%(39/41), and 97.6%(40/41) of *C. jejuni* were resistant to ciprofloxacin, erythromycin, tetracycline, and triple sulfa, respectively. High resistance to antimicrobial agents of *L. monocytogenes*, *S. aureus* and *C. jejuni* isolates in this study could be attributable to chlortetracycline, sulfathiazole, and enrofloxacin currently being used in poultry farming in Korea.

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