Antimicrobial Susceptibilities, Phage Types, and Molecular Characterization of Salmonella enterica Serovar Enteritidis from Chickens and Chicken Meat in Turkey

Thirty-eight Salmonella Enteritidis isolates from chickens and chicken meat in Turkey were examined for antimicrobial susceptibility, XbaI pulsed-field gel electrophoresis (PFGE) patterns, phage types, plasmid profiles, and resistance genes. Seven different PFGE patterns were observed, with the most common accounting for 71% (X1). The most common phage type was PT4, followed by PT7, PT16, PT1, PT6, and PT35. Different phage types shared the same PFGE pattern. Twenty-one isolates were susceptible to all antimicrobial agents tested whereas eight were resistant to two or more antimicrobials. Six isolates were resistant to gentamicin, spectinomycin, streptomycin, and sulphamethoxazole and one of these in addition to nalidixic acid. Two isolates were resistant to ampicillin and nalidixic acid. An additional nine isolates were resistant to nalidixic acid only. All six streptomycin-resistant isolates had aadA located in an integron class 1 structure. Both ampicillin-resistant isolates had the bla(TEM) gene. Five different plasmid profiles were found among the isolates. Sixty-five percent of isolates contained a single plasmid with an approximate size of 55-60 kb. Plasmid profiling confirmed the PFGE pattern.

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