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P1353 Turkey meat as a source of determinants conferring plasmid-mediated quinolone resistance in *Salmonella*

Epidemiology of antimicrobial resistance

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Objective: Molecular characterization of antimicrobial resistance (R) in *Salmonella* (S.) isolates, mainly originating from turkey meat, showing a PMQR-phenotype, in Germany.

Methods: Among the *S. enterica* isolates from animal and food origin (2000–2008) obtained in the National Reference Laboratory for *Salmonella* (NRL-Salm) strain collection, isolates showing a MIC for nalidixic acid = 8–32 mg/L and for ciprofloxacin 0.125–1 mg/L, were selected for further studies. Sixteen of these isolates (avoiding siblings) originated from turkey meat (eleven), turkey (one), a not determined (ND) meat source (three) or poultry (one). The isolates were characterized by PCR amplifications/sequencing, PFGE with XbaI, plasmid profile analysis and Southern-blot hybridization to determine the resistance determinants and epidemiological relationship of the isolates.

Results: These isolates were positive for PMQR-genes. The *qnrB19* gene was present in nine strains isolated in different years in different German regions: eight *S. Hadar* (six isolated from turkey meat, one from poultry and once from ND meat), and one *S. Uganda* (ND meat). All *S. Hadar* showed an identical XbaI-PFGE pattern, and all except one carried three small plasmids (<4 kb) suggesting the clonal spread of a *qnrB19*-positive strain. The *qnrS1* gene was found in five *S. Saintpaul* (four of them from turkey meat, one of them from ND minced meat, different years and different regions). These isolates showed two similar PFGE-patterns (differing in only band in one isolate), and three different plasmid profiles, all of them carrying a small plasmid of about <10 kb. Finally, the *qnrA* gene was present in a *S. Typhimurium* isolate from turkey, and *qnrB2* in a *S. Uganda* isolate from ND meat. Plasmid location of these genes was confirmed. No *qnrC*, *qnrD* or *qepA* genes were detected among the isolates.

Conclusions: Our results show that various determinants conferring PMQR are present in *Salmonella* isolates originating from turkey/turkey meat. This kind of food can contribute to the further spread of these determinants, and this fact needs to be further investigated.