Experimental Infection of Egg-laying Hens with Salmonella enterica Serovar Enteritidis Phage Type 4 and its Three Mutants

Seongbeom Cho, Nicole S. Crisp, Jessica R. Maley, Kristin M. Evon, Muhammad Younus, Mokhtar M. Arshad, Sangwei Lu and A. Mahdi Saeed

Abstarc :

The emergence of *Salmonella enterica* serovar Enteritidis (*S.* Enteritidis) during the past three decades as major contaminant of eggs and other poultry products caused a surge in human infections. This could have been mediated in part by emerging *S.* Enteritidis strains with enhanced virulence. The overall pathogenicity of *Salmonella* is controlled by numerous genes. To assess the role of a few specific genes thought to contribute to the pathogenicity of *S.* Enteritidis phage type 4 strain and three mutants (M1, M2, M3). These mutants were produced from the wild type (WT) *S.* Enteritidis of fecal shedding and faster clearance from internal organs of the infected hens than the M2 and M3 mutants. The isolation rates of the wild type *S.* Enteritidis and the mutants were highest from the ceca, moderately high from the liver and spleen, and lowest from the ovaries of the infected hens. Hep-2 cells attachment assay revealed attenuated attachment for the M1 mutant appears to have been attenuated.

Key Word :

egg-laying hens, experimental infection, mutants, Salmonella Enteritidis, pathogenicity

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