

ANTIMICROBIAL RESISTANCE AND MOLECULAR CHARACTERIZATION OF *SALMONELLA ENTERICA* SEROVAR KEDOUGOU ISOLATES FROM CLINICAL SPECIMENS AND ENVIRONMENTAL SAMPLES IN THAILAND, 2006-2009

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Abstract. *Salmonella enterica* serovar Kedougou was among the top 10 serovars causing salmonellosis in humans and animals during 2006-2009 in Thailand. Two hundred and twenty-four *S. Kedougou* isolates from human, food and environmental samples were collected from 2006 to 2009. Antimicrobial susceptibility of all isolates, presence or absence of antimicrobial resistance genes and pulsed-field gel electrophoresis (PFGE) profiles were determined. Multidrug resistance (resistance to at least three different classes of antimicrobials) was observed in 126/185 (68.1%) and 31/39 (79.5%) of *S. Kedougou* isolates from human and environmental origins, respectively. Nine (4%) *S. Kedougou* isolates were positive for extended spectrum β -lactamase (ESBL), including 8 isolates from humans and 1 isolate from raw food. Seven of 8 ESBL-producing isolates from humans harbored *bla*_{CTX-M-63} and *bla*_{TEM-1b}, and the remaining isolate *bla*_{CMY-2} and *bla*_{CTX-M-63}. Additionally, one ESBL-producing isolate from fresh pork harbored only *bla*_{CMY-2}. All ESBL-producing isolates positive for *bla*_{CTX-M-63} were resistant to cefotaxime. The PFGE clonal characteristics among the isolates from human and environmental sources may indicate a recent spread of this serovar. The presence of multidrug resistance and β -lactamase genes in *S. Kedougou* isolated from humans and raw food poses a potential public health problem in Thailand.

Keywords: *Salmonella* Kedougou, antimicrobial susceptibility, β -lactamase genes, extended spectrum β -lactamase

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