

Emergence of Carbapenemase-Producing *Escherichia coli* Isolated from Companion Animals in Algeria

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Abstract :

The emergence and worldwide spread of carbapenemase-producing *Enterobacteriaceae* is of great concern to public health. The aim of this study was to investigate the occurrence of carbapenemase-producing *Escherichia coli* in companion animals in Algeria. Two hundred fecal samples were obtained from healthy and diseased dogs and cats in one veterinary office and private owners in Bejaia city, Algeria, during November 2014 to March 2015. Isolates were screened by polymerase chain reaction for the presence of carbapenemase, acquired plasmidic AmpC (pAmpC) and extended-spectrum beta-lactamase genes. Five carbapenemase-producing *E. coli* isolates were detected including four OXA-48-producing isolates and one isolate producing NDM-5. Coexpression of ESBL and pAmpC genes was observed in these isolates. Phylogenetic grouping revealed that these isolates belonged to A and D phylogroups. The results of this study show that carbapenemase-producing *E. coli* spread to the companion animals in Algeria.