Detection of Pandemic *Escherichia coli* O25:H4-ST131 Clone in Humans and Companion Animals in Kandy, Sri Lanka: A Preliminary Study

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Escherichia coli (*E. coli*) sequence type O25:H4-ST131 is a worldwide disseminated multi-drug resistant pathogenic clone which has gained global attention as the reason for recent increase in resistance to broad-spectrum β-lactams and fluoroquinolones. Present study determined the occurrence and antibiogram of O25:H4-ST131 in humans and companion animals in and around Kandy, Sri Lanka. Clinical samples or organisms isolated from extra-intestinal infections of humans, cats and dogs were obtained from the diagnostic Microbiology laboratories at the Medical and Veterinary Teaching Hospitals in Peradeniya in January and February 2020 and confirmed as *E. coli* by biochemical and molecular testing. A total of 45 *E. coli* isolates (human = 26; dogs and cats = 19) were screened by quardruplex PCR for phylogroup, and by simplex PCR for *rfbO25b* gene of O25:H4-ST131 clone. Antimicrobial resistance of the isolates was determined by disk diffusion method. Of the 45 isolates screened, 33 (73.33%) belonged to the phylogroup B2 of which 21 (63.63%) were O25:H4-ST131 (humans = 14 dogs =7) and the remaining 12 belonged to phylogroups A (n=6), B1 (n=3), D (n=1) and F (n=2). All O25:H4-ST131 isolates were multidrug resistant (resistant ≥ 3 antimicrobial classes) with all 21 isolates resistant to ampicillin, 11 (52.38%) to amoxicillin/clavulanate and 17 (80.95%) to quinolones, third and fourth generation cephalosporins and to trimethoprime sulphanamides. Further, 3 (14.29%) isolates were resistant to carbapenems and 4 (19.05%) were resistant to gentamicin. Importantly, all O25:H4-ST131 isolates were sensitive to amikacin. The multidrug resistant pandemic *E. coli* clonal group, O25:H4-ST131 is present in humans and dogs in Kandy, Sri Lanka.

Keywords: *E. coli,* O25:H4-ST131, Antimicrobial resistant, Phylogroup

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