

DETECTION OF EXTENDED SPECTRUM
BETA-LACTAMASES IN ESCHERICHIA COLI
FROM CAGE BIRDS

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Research**Detection of Extended Spectrum Beta-Lactamases in *Escherichia coli* From Cage Birds**

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Abstract

Extended spectrum β -lactamase (ESBL) producing *Escherichia coli* or other *Enterobacteriaceae* species are considered a global emerging public health problem. The objective of this research study was to determine the prevalence of extended-spectrum beta-lactamases (ESBLs) producing *Escherichia coli*, in various pet birds in Hatay, Turkey. The 4 bacterial isolates obtained displayed different frequencies of antimicrobial susceptibility amongst 18 antibiotics. The four *E. coli* isolates were classified as group B1 based on phylogenetic analysis. Pulsed-field gel electrophoresis (PFGE) method was used to detect molecular typing of the beta-lactam resistance gene (*bla*_{CTX-M}) isolates and 2 different pulsotypes were revealed from the same pet shop. All CTX-M producing *E. coli* isolates showed almost identical genotypes. For the first time, the presence of fecal origin ESBL producing *E. coli* was isolated from cage birds in Turkey. These results confirm the presence of ESBL producing *E. coli* in cage birds as a potential risk factor for humans and other animals. Thus,

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