

Phylogenetic Groups, Pathotypes and Antimicrobial Resistance of *Escherichia coli* Isolated from Western Lowland Gorilla Faeces (*Gorilla gorilla*) of Moukalaba-Doudou National Park (MDNP)

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Terrestrial mammals in protected areas have been identified as a potential source of antimicrobial-resistant bacteria. Studies on antimicrobial resistance in gorillas have already been conducted. Thus, this study aimed to describe the phylogroups, pathotypes and prevalence of antimicrobial resistance of *Escherichia coli* isolated from western lowland gorilla's faeces living in MDNP. (2) Materials and Methods: Ninety-six faecal samples were collected from western lowland gorillas (*Gorilla gorilla*) during daily monitoring in the MDNP. Sixty-four *E. coli* isolates were obtained and screened for phylogenetic and pathotype group genes by polymerase chain reaction (PCR) after DNA extraction. In addition, antimicrobial susceptibility was determined by the disk diffusion method on Mueller Hinton agar. (3) Results: Sixty-four (64%) isolates of *E. coli* were obtained from samples. A high level of resistance to the beta-lactam family, a moderate rate for fluoroquinolone and a low rate for aminoglycoside was obtained. All *E. coli* isolates were positive in phylogroup PCR with a predominance of A (69% ± 11.36%), followed by B2 (20% ± 19.89%) and B1 (10% ± 8.90%) and low prevalence for D (1% ± 3.04%). In addition, twenty *E. coli* isolates (31%) were positive for pathotype PCR, such as EPEC (85% ± 10.82%) and EPEC/EHEC (15% ± 5.18%) that were obtained in this study. The majority of these MDR *E. coli* (DECs) belonged to phylogenetic group A, followed by MDR *E. coli* (DECs) belonging to group B2. (4) Conclusion: This study is the first description of MDR *E. coli* (DECs) assigned to phylogroup A in western lowland gorillas from the MDNP in Gabon. Thus, wild gorillas in MDNP could be considered as asymptomatic carriers of potential pathogenic MDR *E. coli* (DECs) that may present a potential risk to human health.

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