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Isolation of plasmids from antimicrobial resistant faecal *Escherichia coli*

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Resistance of bacteria to antibiotics poses a serious threat to humanity as it is associated with treatment failure. Plasmids provide the machinery for transferring genetically encoded materials such as antibiotic resistance within bacterial populations. Commensal bacteria like *Escherichia coli* in the gut are likely sources of antibiotic resistance genes, especially, if they harbour resistance genes. To assess the plasmid harbouring profile of commensal E. coli, 40 antibiotic resistant isolates from children (n=10), adult humans (n=10), chicken (n=10), and cattle (n=10) were screened for presence of plasmid DNA using the alkaline phosphatase method and gel electrophoresis. The plasmid carrying rate of the isolates was 60%. All isolates (100%) from chicken harboured plasmids. Occurrence rates of plasmids from other sources were as follows: 70% in isolates from children, 40% in human adult isolates, and 30% in cattle isolates. This result indicates that presence of plasmid in commensal *E. coli* is significantly associated with source of isolates ($X2=12.500$; $p<0.05$). The high plasmid profile of the isolates suggests the potential risk of these commensals to human health.

Biography

Aminu R F is currently a Post- graduate student of the Federal University of Agriculture, Makurdi, Nigeria where she is running a PhD in Medical Microbiology. She has been working in the Kogi State University, Anyigba as a Laboratory Technologist in the Microbiology Department since the year 2000. She has keen interest in academic research and hopes to fully integrate into academics after the completion of her PhD this year.

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