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Abstract (poster session)

**Molecular characteristics of commensal *Escherichia coli* producing extended-spectrum beta-lactamases (ESBL) from pregnant women from Ibadan, Nigeria**

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**Objectives:** The aim of this study was to investigate the molecular characteristics of commensal *Escherichia coli* producing extended spectrum beta lactamases (ESBLs) or showing fluoroquinolone resistance, from pregnant women from Ibadan, Nigeria. **Methods:** 34 cefotaxime resistant *E. coli* (EUCAST breakpoints), 25 of them also showing ciprofloxacin resistance, were isolated on Eosin-methylene blue agar supplemented with 8µg of cefotaxime from pregnant women at the day of admission to the hospital (one strain per patient was included in the study) and analyzed for blaCTX, blaTEM, blaSHV, and blaOXA-1, and Plasmid Mediated Quinolone Resistance (PMQR) genes. Clonal relatedness of the isolates was determined by ERIC-PCR. Prototypic plasmids were transferred by transformation to Top10 *E. coli* recipient. Plasmid typing was performed by PCR-Based Replicon Typing for 25 replicons and restriction fragment length polymorphism (RFLP) analysis. **Results:** Genotyping demonstrated that the majority of the *E. coli* strains (20/34) belonged to two major groups (A and B ERIC-groups). The remaining isolates were genetically unrelated. The blaCTX-M-15 gene was identified in the majority of the strains. The prevalence of aac(6)-Ib-cr, qnrS1, qepA1, qnrB1 genes were identified in 17, 7, 3, and 2 strains, respectively. Interestingly, PBRT untypable plasmids were at the origin of dissemination of the blaCTX-M-15 gene and the prototypic novel plasmid is currently under further investigation by full sequencing. The qnrB1 was located on IncHI2 plasmids, while qnrS1 was identified on the very rare IncX2 plasmid family, previously identified only in *E. coli* from poultry from Nigeria. **Conclusions.** This study shows that novel or remote plasmids are at the origin of dissemination of common resistance determinants, such as blaCTX-M-15 and qnrS1 in this country. Differently from what has been described in other countries, where these resistance genes were identified on common plasmid families of the IncF, IncI1 or small ColE1 type, Nigeria seems to have a different reservoir of horizontally transmitted resistance determinants. It is extremely significant that the qnrS1 gene, previously described for the first time on the rare IncX2 family in *E. coli* from poultry at the slaughterhouses, was also detected in the faecal flora of healthy women, suggesting a potential animal reservoir of PMQR genes in food-animals in this country.