Emerging drug resistance *Salmonella* strains from chicken meat

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This work was carried out to study the occurrence of *Salmonella* infections in chicken and human suffering from gastroenteritis in Egypt. A total of 349 chicken meat and 40 stool specimens of children were collected, samples were subjected to bacteriological examination and identified biochemically as *Salmonella* then subjected to serological identification, also were tested for their antibiotic susceptibility by disc diffusion method. Also, genotyping by PCR to detect *Salmonella* enterotoxin gene (stn) and their expression by infant mouse assay. The study revealed that 14 (4.01%) and 2 (5%) were positive for *Salmonella* species in chicken meat and children, respectively and serological identification were *Salmonella infantis*, *Salmonella Typhi*, *Salmonella kentucky*, *Salmonella rubislaw*, *Salmonella poona*, *Salmonella typhimurium*, *Salmonella virginia*, *Salmonella enteritidis* and *Salmonella montevideo* and *Salmonella kentucky* and *Salmonella enteritidis* in chicken meat and children isolates respectively. Disc diffusion method showed that 3 (21.4%) in chicken meat isolates and 2 (100%) in children isolates were multidrug resistant in which *S. kentucky* have resistance to Ciprofloxacin, the drug of choice for treating salmonellosis in children. Also, genotyping showed that 9 (64.28%) and 2 (100%) isolates confirmed to be enterotoxigenic strains in chicken meat and children, respectively and this stn gene have been expressed (100%) by infant mouse assay. Sequencing and phylogenetic tree of 4 studied isolates resulted in assessment the relations between different isolation sources. Special attention must be paid to antibiotics that are used exclusively in poultry farms, appropriate measures must be taken to control the spread of resistant bacteria to human.

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