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Prevalance of *Shigella* spp. and their antimicrobial resistance patterns in Gulbarga district, Hyderabad-Karnataka region

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Shigella is an infectious food-borne pathogen that can cause a several diarrheal illness called shigellosis. This shigellosis is a common infection among the children of Gulbarga district, Hyderabad-Karnataka region. The emergence of antibiotic resistance in *shigella* isolates has profound clinical implications on the diarrhoeal disease. This study is a matched case-control and aims to determine the incidence of *Shigella* isolates, emerging antibiotic resistance and associated-risk factors in diarrheal infants in Gulbarga district.

A total of 334 stool samples were collected from the infants of various local diagnostic centres like Shaha and other children's hospital. Average infants age participated in this study were below 0-5 years between the periods of July 2013 to April 2014. Standard microbiological procedures were used for isolation and identification of *Shigella* species while the disc diffusion test was used to determine the antimicrobial resistance patterns of the recovered isolates.

A total of 43 (12.84%) isolates were identified as *Shigella* species. *Shigella dysenteriae*, *Shigella flexneri*, *Shigella sonnei* and *Shigella boydii* were accounted respectively for 48.83%, 32.55%, 18.60% and no *S. boydi* (0%) of the total number of *Shigella* isolated. Antimicrobial susceptibility test was done by disk diffusion method according to the CLSI guidelines (2012). Multidrug resistance was commonly observed among *Shigella* isolates (31/43) with special reference to fluoroquinolone and third generation cephalosporins resistance antibiotics and further the minimal inhibitory concentration (MICs) will be carried out for reported resistance *shigella* isolates.

Biography

Prabhurajeshwar C has completed MSc Biotechnology from Dept of Biotechnology Gulbarga University, Gulbarga, at present pursuing PhD degree under the guidance of Prof. Kelmani Chandrakanth R from Dept. of Biotechnology Gulbarga University, Gulbarga and working as a DBT-JRF under the major project of DBT, Govt. of India, New Delhi.

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