Prevalence 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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Prabhurajeshwar C et al., J Veterinar Sci Technolo 2014, 5:3
http://dx.doi.org/10.4172/2157-7579.S1.007