CHANGING PATTERNS OF ANTIMICROBIAL SUSCEPTIBILITY OF SHIGELLA SEROTYPES ISOLATED FROM CHILDREN WITH ACUTE DIARRHEA IN MANIPAL, SOUTH INDIA, A 5 YEAR STUDY

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Abstract. This study was carried out to determine the current pattern of Shigella serogroups and their antimicrobial resistance in children with acute gastroenteritis in Manipal, South India. A total of 1,200 stool samples were collected from April 2001 to May 2006 in children suffering from acute gastroenteritis attending the out-patient department of pediatrics at Kasturba Hospital, Manipal, South India. These samples were cultured for enteric pathogens. The isolates were confirmed to be Shigella by biochemical reactions and slide agglutination tests using specific antisera. Antimicrobial susceptibility was performed using an agar diffusion technique method following the National Committee for Clinical Laboratory Standard guidelines. Of 1,200 stool samples, 68 (5.6%) were positive for Shigella spp, 31 (45%) were Shigella flexneri followed by S. sonnei in 20 (31%), S. boydii in 10 (15%), and S. dysenteriae in 6 (8%). Of the 68 isolates, 58 (85.7%) showed resistance to various drugs and 47 (70%) were resistant to two or more drugs. Resistance to trimethoprim-sulfmethoxazole, tetracycline, nalidixic acid and ampicillin was observed in this study. All the strains were resistant to nalidixic acid (100%) but sensitive to cefotaxime and ceftriaxone.