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Prevalence and antimicrobial susceptibility pattern of *Salmonella typhi* and *Salmonella paratyphi* isolates from patients with clinical symptom compatible with typhoid fever

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Introduction: *Salmonella typhi*, *S. paratyphi A*, *S. paratyphi B* and *S. paratyphi C* are the causative agents of typhoid fever. Epidemiologic data on typhoid fever and causative agents in endemic countries is lacking or incomplete with very poor estimates of the number of cases and deaths annually. Drug resistance development in typhoid salmonellae is one of important factors in the epidemiology of the disease.

Objective: The main objective of this study is to determine the prevalence and antimicrobial susceptibility pattern of *Salmonella typhi* and *Salmonella paratyphi* in febrile patients with clinical symptom compatible with typhoid fever in St Paul's General Specialized Hospital, Addis Ababa, Ethiopia.

Methodology: A total of 270 febrile patients from mid December 2010 to March 2011 were involved in the study. 5 ml blood sample was collected and inoculated into broth media for primary isolation and identification was made by different biochemical tests. Antimicrobial susceptibility pattern was determined by the modified Kirby-Bauer disk diffusion technique.

Result: Seven (2.6%) cases of *S. typhi* and 4 (1.5%) cases of *S. paratyphi* were identified with the total prevalence of typhoid fever 4.1 %. Most (3/7[42.9%]) of the isolated *S. typhi* are highly resistant to amoxicillin. *S. paratyphi* isolates show no resistance to gentamycin, tetracycline, norfloxacin and ciprofloxacin. More resistance is observed in amoxicillin. One species of *S. typhi* and 2 species of *S. paratyphi* were multi drug resistant.

Conclusion: A 4.1% prevalence of *S. typhi* and *S. paratyphi* indicates that, typhoid fever is still a public health concern. The proportion of *S. typhi* and *S. paratyphi* as a cause of typhoid fever is increasing than previously expected. Both *S. typhi* and *S. paratyphi* showed high resistance for commonly used drugs against typhoid fever.

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