Letter to the Editor

Sensitivity pattern and trend of multi drug resistance in *Salmonella typhi* occurring in South India

Sir,

In a prospective cross sectional study conducted at Kanchi Kamakoti Childs Trust hospital, a major private tertiary care hospital for children in Chennai, India during the period October 2013 to September 2014. 105 cases were diagnosed as typhoid with their blood culture yielding the growth of *Salmonella typhi*. Those children were followed with drug sensitivity pattern and the trend of sensitivity was compared. Regarding antibiotic sensitivity pattern, 97.1% were Nalidixic acid resistant, 4.76% were ampicillin resistant, 1.9% were ciprofloxacin resistant. 0.95% contributed to multidrug resistant typhoid (resistant to chloramphenicol, ampicillin, and cotrimoxazole). Regarding Nalidixic acid resistant strains in our hospital, the occurrence have increased from 56% in 2006-2007 and 73% in 2007-2008 to 97.1% in 2013-2014. This study had 102 patients with Nalidixic acid resistant strains (97.1%), P value was significant (<0.001) when compared to 2007-2008.¹

Multi drug resistance trend was evaluated in our study by comparing the previous studies with our study. In a study done in CMC Vellore, Tamilnadu, India multi drug resistance was quoted to be 45% in the year 1999-2002,² the following years in 2002-2003, a study done in JIPMER, Pondicherry, India found it to be 61%, in 2006-2007.³ The MDR Typhoid occurrence was found to be 12% in a study done in Chennai, Tamilnadu, India.⁴ In 2009-2011, the occurrence in Chennai was 0%,⁵ in our study which was conducted in Chennai, the MDR Typhoid occurrence has been found out as 0.95%. Hence it is found that a Nalidixic acid resistant strain has been on the raising trend and the occurrence of multi drug resistance has come down drastically.

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Figure 1: Drug resistance for typhoid-South India.

Figure 2: Nalidixic acid resistance.

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