

Letters to Editor

Baseline Titer of Widal in Bijapur

Dear editor,

The definitive diagnosis of enteric fever requires isolation of *Salmonella typhi* and *paratyphi* from blood, feces, urine and other body fluids. In developing countries, facilities for isolation and culture are often not available especially in smaller hospitals, and diagnosis relies upon the clinical features of the disease and detection of agglutinating antibodies to *S. typhi* and *S. paratyphi* by the Widal test.¹

Classically, a fourfold rise of antibody in paired sera is considered diagnostic of typhoid fever.¹ However, in India, most patients present late to the hospitals and requires immediate diagnosis and specific treatment and often a single sample has to be relied upon instead of paired serum samples.² In endemic countries like India, sera of proportion of healthy individuals contain antibodies capable of reacting to a variable titer in Widal test due to previous stimuli.^{2,3}

The use of single Widal test, however, requires that the baseline titer in the

community be determined.⁴ This study is therefore done to determine the baseline titer of Widal at Shri BM Patil Medical College, Bijapur, Karnataka.

Two hundred healthy volunteers were screened for *Salmonella* agglutinins using Widal test. The age group of these volunteers varied between 19-50 years. Out of 200, 60% (120) had a titer of less than 1:20, 16.5% (33) had a titer equal to 1:20, 16.5% (33) had a titer of 1:40 and 07% (14) had a titer of 1:80 to 'O' antigen of *S. typhi*. Out of 200, 81% (162) had a titer of less than 1:20, 12.5% (25) had a titer equal to 1:20, 05% (10) had a titer of 1:40 and 1.5% (03) had a titer of 1:80 to 'H' antigen of *S. typhi*. Out of 200, 94% (188) had a titer of less than 1:20, 03% (06) had a titer equal to 1:20, 02% (04) had a titer of 1:40 and 01% (02) had a titer of 1:80 to 'AH' antigen of *S. paratyphi A*.

Baseline titer for *S. typhi* 'O' antigen was 1:80 and for 'H' antigen was 1:80. Baseline titer for *S. paratyphi* 'AH' antigen was 1:80. Based on these findings a titer of 1:160 and above with relevant clinical findings was considered diagnostic for enteric fever.

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