

4th Annual Congress on **INFECTIOUS DISEASES**

&

5th International Conference on

NEGLECTED TROPICAL & INFECTIOUS DISEASES

August 29-30, 2018 | Boston, USA

Absolute eosinopenia as a surrogate marker for enteric fever

Swati Kapoor, Rajeev Upreti, Monica Mahajan, Abhaya Indrayan and Dinesh Srivastava
Max Super-speciality Hospital, India

Enteric Fever is caused by gram-negative bacilli *Salmonella typhi* and *para-typhi*. It is associated with high morbidity and mortality worldwide. Timely initiation of treatment is a crucial step for the prevention of any complications. Cultures of body fluids are diagnostic, but not always conclusive or practically feasible in most centers. Moreover, the results of cultures delay the treatment initiation. Serological tests lack diagnostic value. The blood counts can offer a promising option in diagnosis. A retrospective study to find out the relevance of leucopenia and eosinopenia was conducted on 203 culture proven enteric fever patients and 159 culture proven non-enteric fever patients in a tertiary care hospital in New Delhi. The patient details were retrieved from the electronic medical records section of the hospital. Absolute eosinopenia was considered an absolute eosinophil count (AEC) of less than 40 /mm³ (normal level: 40-400/mm³) using LH-750 Beckman Coulter Automated machine. Leucopenia was defined as total leucocyte count (TLC) of less than 4 X 10⁹ /l. Blood cultures were done using BacT/ALERT FA plus automated blood culture system before first antibiotic dose was given. Case and control groups were compared using the Pearson Chi-square test. It was observed that absolute eosinophil count (AEC) of 0-19 /mm³ was a significant finding (p<0.001) in enteric fever patients, whereas leucopenia was not a significant finding (p=0.096). Using Receiving Operating Characteristic (ROC) curves, it was observed that patients with both AEC <14/mm³ and TCL <8 x 10⁹/l had 95.6% chance of being diagnosed as enteric fever and only 4.4% chance of being diagnosed as non-enteric fever. This result was highly significant with p<0.001. This is a very useful association of AEC and TLC found in enteric fever patients of this study which can be used for the early initiation of treatment in clinically suspected enteric fever patients.

swatikapoor3012@gmail.com