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ABSOLUTE EOSINOPENIA AS A EARLY DIAGNOSTIC MARKER FOR ENTERIC FEVER

Swati Kapoor[1], Rajeev Upreti, Monica Mahajan, Abhaya Indrayan and **Dinesh Srivastava**

[1]Max Superspeciality Hospital, New Delhi, India

Enteric fever is caused by gram negative bacilli *Salmonella typhi and paratyphi*. It is associated with high morbidity and mortality worldwide. Timely initiation of treatment is a crucial step for 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 as absolute eosinophil count (AEC) of less than 40 /mm^3 (normal level: 40-400/mm^3) using LH-750 Beckman Coulter Automated machine. Leucopoenia was defined as total leucocyte count (TLC) of less than 4x10^9 /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 Pearson Chi square test. It was observed that absolute eosinophil count (AEC) of 0-19 / mm^3 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/mm^3 and TCL <8x10^9 /l had 95.6% chance of being diagnosed as enteric fever and only 4.4% had 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.

Biography

Swati Kapoor is a second year postgraduate student in internal medicine in New Delhi, India. She did her mbbs from lady hardinge medical college, New Delhi. She have keen interest in research and have participated in many competitions including ACP India chapter (won 2nd prize in poster competition).

swatikapoor3012@gmail.com