

Neutropenia in a Tertiary Hospital: Epidemiology and Culture Isolates

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Objective: To study the causes, severity, and the frequency of neutropenia.

Design: Retrospective medical chart review of patients with neutropenic episodes.

Setting: King Khalid University Hospital, Riyadh, Saudi Arabia.

Method: Consecutive patients with a diagnosis of neutropenia were reviewed and analyzed between January 1995 and December 2006. Personal characteristics and absolute neutrophil counts were documented.

Result: Ninety-seven patients, 39 males and 58 females, with 113 episodes comprised the study group. Mean age was 38 ± 24.8 years. Mean absolute neutrophil count was 1184 ± 396 cells/mm³. There were 88 (90.7%) with mild neutropenia and 9 (9.3%) had moderate neutropenia. An infective focus was identified in 75 (77.3%) patients. Patients with mild neutropenia were significantly younger compared to patients with moderate neutropenia ($p=0.0185$) and had foci of infection in 81.8% of cases. Moderate neutropenia was seen in cancer patients and in those receiving chemotherapy. Fever was present in 84.5% of patients, who were younger and with shorter duration of neutropenic episodes compared to those who did not have fever. However, mortality was significantly greater among non-febrile patients than those with febrile episodes were ($p=0.0294$).

Conclusion: There is a need to consider a variety of factors such as age, sex, infectious foci, presence of fever and even the duration of neutropenia for initiation of appropriate management protocols. The absence of fever may mislead physicians regarding the severity of the condition.

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