

Etiology of primary neutropenia and its association with clinical and laboratory findings in neutropenic patients who admitted to children's hospital of Tabriz

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Introduction:

Neutropenia is defined to blood neutrophils lower than 1500 μ L. Therefore, the diagnosis of types and causes of neutropenia plays an important role in the management of disease.

Materials and Method:

This study was a descriptive cross-sectional study which was done on patients with neutrophils lower than 1500 μ L, who were admitted in Children' Hospital of Tabriz during a three-year period (2011 – 2014). In this study we recorded the medical problems of neutropenic patients who were admitted to the hospital during 3 years.

Results: After assessment of 280 patients with neutropenia, finally 31 patients including 17 females and 14 males with diagnosis of persistent neutropenia were included to the study. The mean \pm standard deviation for age of patients was 3.8 \pm 3.2 years. Among these, the most common cause of neutropenia was combined immunodeficiency (CID) in 8 individuals (25.8%) followed by congenital neutropenia in 7 patients (22.5%) and common variable immunodeficiency (CVID) in 5 patients (16%). The most common manifestations of disease were fever and infections. Finally, four patients died because of severe infections.

Conclusion:

It seems that combined immunodeficiency was the most common cause of persistent neutropenia in patients that living in north-west of Iran. To the better diagnosis and management of neutropenia, large samples were recommended.

Key words:

Persistent neutropenia, combined immunodeficiency, congenital neutropenia, Iran