



Title: Neutropenia in Patients with Common Variable Immune Deficiency

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Abstract

Objectives: Common variable immunodeficiency is a primary immunodeficiency disease characterized by hypogammaglobulinemia and heterogeneous clinical features. Neutropenia is a rare complication among CVID patients leading to a higher rate of infections and morbidity. Multiple factors (e.g. autoimmunity, infections, drugs and etc.) are found to underlie this complication.

Methods: In the present study, demographic, clinical and laboratory data were compared between two groups of CVID patients with and without neutropenia.

Results: Frequency of neutropenia was 8.1%. Infectious complications were the most prevalent clinical manifestations regardless of presence of neutropenia. However, candida infection and septicemia were significantly higher in neutropenic patients ($p = 0.001$ and $p = 0.01$, respectively). The most prominent clinical phenotypes of CVID patients with neutropenia were polyclonal lymphocytic infiltration and autoimmunity, both being considerably higher compared to the non-neutropenic group ($p = 0.04$ and $p = 0.009$, respectively). The mortality rate in neutropenic patients was higher than in patients without neutropenia (61.1 vs. 25.2%, $p = 0.004$).

Conclusion: Although neutropenia is a rare complication among CVID patients, it is associated with frequent and severe clinical complications, including autoimmunity and lymphoproliferative conditions. Also, its accompaniment with higher mortality frequency in CVID patients indicates a need for more precise attention and consideration regarding specific treatment in neutropenic patients.

Key words: Common variable immunodeficiency, Neutropenia, severe clinical complications

Biography (upto 150 words)

Reza Yazdani has completed his PhD at the age of 30 years from Isfahan University of Medical Sciences, Iran. He is fellow in trainee of Research Center for Immunodeficiencies, Tehran University of Medical Sciences, Tehran, USA. He has over 90 publications that have been cited over 650 times, and his publication H-index is 18 and has been serving as an editorial board member of many reputed Journals.

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