

Neutrophils and lymphocyte subsets of DLBCL patients

Yin Junjie¹, Yang Zhiluo², Wei Yu², and Xudong Wei¹

¹The Affiliated Cancer Hospital of Zhengzhou University

²Qingdao Municipal Hospital Group

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Abstract

The biomarker NLR, which was known as an indicator for systematic inflammation, has been testified to be a prognostic factor for DLBCL patients in recent years. Here, we conducted a systemic in-depth study of neutrophils and lymphocyte subsets in peripheral blood of the patients and their dynamics along with chemoimmunotherapy. A total of 61 patients diagnosed with DLBCL were enrolled. Detection of lymphocyte subsets by flow cytometry was conducted at diagnose and after 2, 4, 6 and 8 cycles' treatment of R-CHOP. Alterations of neutrophils and lymphocyte subsets and their dynamics after treatment in patients were analyzed. Neutrophils of stage III-IV DLBCL patients were increased($p=0.012$), while lymphocytes were decreased($p=0.025$). So, the patients had significantly increased NLR($p<0.001$). Further analyze of lymphocyte subsets showed a significantly reduced CD4+ T cells in DLBCL patients($p=0.001$). Patients with a lower lymphocyte count($<1.26 \times 10^9/L$) were more susceptible to infection ($p<0.001$). NK cells was much higher in patients achieved CR than that of non-CR($p=0.032$). Higher neutrophils and NLR were associated with poor PFS ($p=0.001$, $p=0.045$). Cells in peripheral blood of DLBCL patients were dysregulated, featured with increased neutrophils and reduced lymphocytes. Higher NK cells in patients predicted better treatment outcomes. Higher neutrophils and NLR can be regarded as inferior prognostic factors for DLBCL patients.

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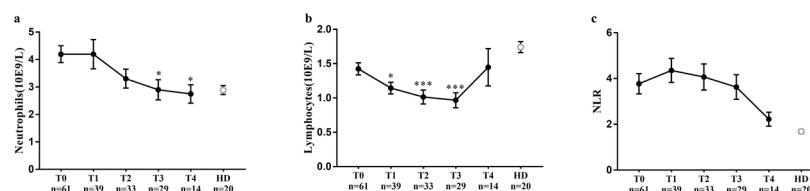


Figure.S2

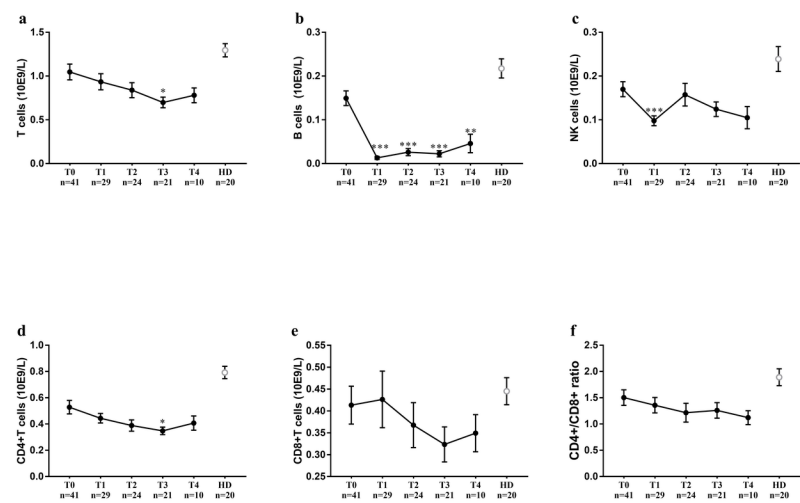


Figure.S3

