

LETTER to the EDITOR

Editorial Process: Submission:10/14/2023 Acceptance:11/24/2023

Red Cell Distribution Width in Diffuse Large B-cell Lymphoma

Asian Pac J Cancer Prev, 24 (11), 3637-3637

Dear Editor

Dear Editor, we would like to discuss on the publication on “Prognostic Role of Red Cell Distribution Width (RDW) in Patients with Diffuse Large B-cell Lymphoma” This study investigated the role of red cell distribution width (RDW) as a prognostic blood marker for Diffuse Large B-Cell Lymphoma (DLBCL). The researchers conducted a retrospective cohort study with 150 DLBCL patients and divided them into two groups based on their RDW levels, normal (RDW \leq 14.6%) and elevated (RDW > 14.6%). The results showed a significant relationship between RDW values and various outcomes such as stage frequency distribution, relapse, mortality, and complete remission. Patients with elevated RDW had a higher risk of relapse, mortality, and lack of complete remission compared to those with normal RDW. Survival analysis also revealed that individuals with higher RDWs had a lower median survival rate. The mortality risk for patients with RDW > 14.6% was 2.44 times higher than those with RDW \leq 14.6%.

The weak point of this study is that it is a retrospective cohort study, which means that the researchers relied on past data and medical records. This type of study design has limitations in terms of controlling confounding factors and establishing causality. Additionally, the study did not explore the underlying mechanisms or reasons for the association between RDW and DLBCL outcomes. Finally, it should note that background RDW might be varied among cases. If the case has underlying hemoglobinopathy such as thalassemia carrier, background RDW can be high (Demirkol et al., 2013). Further investigations are needed to fully understand the role of RDW in DLBCL patients.

References

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Reply to the letter to the editor: Red Cell Distribution Width in Diffuse Large B-cell Lymphoma

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According to the author’s claim regarding the reliance of researchers on a retrospective study and the associated weaknesses, it can be noted that researchers were confident in the accuracy of data registration, and data of unknown quality were excluded from the study. Moreover, individuals with MCV outside the normal range, which includes a wide spectrum of patients with hemoglobinopathy, were excluded from the study to eliminate the confounding effects of other variables. Using multiple logistic regression enabled adjusting for the confounding variables.

However, based on the results of this study and past studies (Rahchamani et al., 2023), the relationship between RDW and the survival of DLBCL patients is confirmed. The mechanism of the relationship between RDW and the prognosis of DLBCL patients has not been clearly and fully examined; nevertheless, an increase in RDW may trigger disturbances in erythropoiesis and changes in red blood cell maturation (Demirkol et al., 2013).

Some studies have shown a connection between RDW and certain inflammatory markers such as IL-6, C - reactive protein (CRP), Tumor Necrosis Factors (TNF) I and II, Thymidine Kinase (TK), Erythrocyte Sedimentation Rate (ESR), and Ferritin, but the role of these markers in DLBCL remains ambiguous (Lippi et al., 2009).

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