

Can the absolute number of lymphocytes improve the overall quality of life of patients with HER2-negative recurrent breast cancer?

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Mokuyasu et al. reported the effect of eribulin treatment on patients with HER2-negative recurrent breast cancer at their institution in their original research published in the journal *Laboratory Medicine International* titled “Absolute lymphocyte count is a prognostic factor in patients with HER2-negative recurrent breast cancer treated with eribulin”. The authors reported the relationship between overall survival (OS), absolute lymphocyte count (bALC) and neutrophil/lymphocyte count ratio (NLR) in 114 HER2-negative breast cancer patients that were treated with eribulin¹⁾.

Determining prognostic factors is useful as eribulin treatment is expensive, necessitating selection of patients for the treatment. Previous studies have reported that bALC and NLR are useful prognostic predictors in the eribulin-treated group²⁾; however, the exact threshold values are yet to be established. In addition, simple indicators, that accurately predict prognosis prior to administration, can improve the overall quality of life of patients.

In the present study, the authors investigated the relationship between OS, the median values (bALC : 1,200/ μ L, NLR : 2) and threshold reported in previous studies³⁾ (bALC : 1,500/ μ L, NLR : 3). The results demonstrated that OS was significantly and specifically prolonged in the group with a bALC value above 1,200/ μ L, indicating its usefulness. No significant improvement was observed at bALC value of 1,500/ μ L and NLR : 2 and 3.

Regardless, previous reports⁴⁾ exist where bALC value of 1,000/ μ L has been found useful as a threshold and more detailed numerical values are possible if the cut-off value is not fixed and a significance difference test is

performed, but analyzed as continuous values. A previous study has found a bALC value of 1.285/ μ L to be useful in a univariate analysis⁵⁾.

The increase in lymphocytes reflects enhanced anti-tumor immune activity, a factor in prolonging OS in the group with bALC greater than 1,200/ μ L. However, the present study did not consider the impact of treatments other than eribulin as well as the variation in optimal threshold between patient groups. Therefore, future studies with more patients are needed.

Reference

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