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Comment on: FLT3 ligand kinetic profile predicts response to treatment in patients with high-risk myelodysplastic syndrome / chronic myelomonocytic leukemia receiving CPX-351: a study from the Groupe Francophone des Myélodysplasies

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Comment on: FLT3 ligand kinetic profile predicts response to treatment in patients with high-risk myelodysplastic syndrome / chronic myelomonocytic leukemia receiving CPX-351: a study from the Groupe Francophone des Myélodysplasies

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Consent from all authors

We reviewed this manuscript and agreed to submit this manuscript.

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Not applicable

Dear Editor

We read Peterlin's impressive study[1] with great interest. In their multivariate analysis, considering age, gender, Revised International Scoring System (R-IPSS) and sFL kinetics, an FLD profile was the only factor associated with a higher CR/CRi rate (Odds Ratio [OR]: 25.3, [95%CI 2.02-3843], p=0.004). However, we discuss that a great statistical pitfall may be ignored that the predictor result of this study may not be accurate.

For multivariate analysis, every 10 variables / 1 outcome event demanded for the predictor regression analysis is the basic fundamental statistical rule[2]. Thus, 28 patients could at most analyze 3 variables for the multivariate analysis. In contrast, 7 variables were analyzed in Supplemental Figure 1 of this study[1]. This overfitted predictor regression analysis model may not produce reliable results.

Furthermore, what is the selection criteria for these variables in multivariate analysis of Supplemental Figure 1. Were they based on statistically significant factors beween outcome and non-outcome group, univariate analysis, or based on the well-known clinical criteria?

Despite these comments, we show great gratitude to Peterlin's impressive study.

Reference

1. Peterlin P, Gaschet J, Turlure P, et al. FLT3 ligand kinetic profile predicts response to treatment in patients with high-risk myelodysplastic syndrome / chronic myelomonocytic leukemia receiving CPX-351: a study from the Groupe Francophone des Myélodysplasies. Haematologica. 2024 Nov 21. [Epub ahead of print]

2. Pavlou M, Ambler G, Seaman SR, et al. How to develop a more accurate risk prediction model when there are few events. BMJ. 2015;351:h3868.