



Interleukin-6 and C-Reactive protein in metastatic breast cancer patients treated with eribulin

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Received: 24 September 2023 / Accepted: 30 September 2023 / Published online: 25 October 2023
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Dear editor,

I read with great interest the Bun et al. study [1], in which investigated the association between cytokines and immune cells, such as myeloid-derived suppressor cells (MDSCs) and cytotoxic and regulatory T cells, to explore how these cytokines might affect the immune microenvironment in metastatic breast cancer (MBC) patients treated with eribulin. They concluded that baseline interleukin (IL)-6 is an important prognostic factor in patients with MBC treated with eribulin. Their results show that high IL-6 is associated with higher levels of MDSCs which suppress anti-tumor immunity, such as CD8⁺ cells. It appears that eribulin is not particularly effective in patients with high IL-6 due to a poor tumor immune microenvironment. IL-6 plays a major role in inflammatory processes. It modulates the transcription of several liver-specific genes during acute inflammatory states, particularly C-reactive protein (CRP). The prognostic impacts of preoperative CRP and interleukin (IL)-6 expression levels in patients with breast cancer remain controversial [2]. The authors did not measure serum CRP level. It would be expected to see a positive association between IL-6 and CRP levels. Moreover, CRP measurement is also more cost effective than IL-6 measurement in routine practice. This issue merits further investigation.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s10549-023-07156-y>.

Funding No funding.

Declarations

Conflict of interest We declare that I have no conflict of interest.

(In case animals were involved) Ethical approval : Not applicable.

(And/or in case humans were involved) Ethical approval Not applicable.

(If articles do not contain studies with human participants or animals by any of the authors, please select one of the following statements) Ethical approval This article does not contain any studies with human participants or animals performed by any of the authors.

(In case humans are involved) Informed consent Not applicable.

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2. Shimura T, Shibata M, Gonda K et al (2019) Prognostic impact of interleukin-6 and C-reactive protein on patients with breast cancer. *Oncol Lett* 17(6):5139–5146

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