Novel prognostic index to predict survival outcomes in gastric cancer patients

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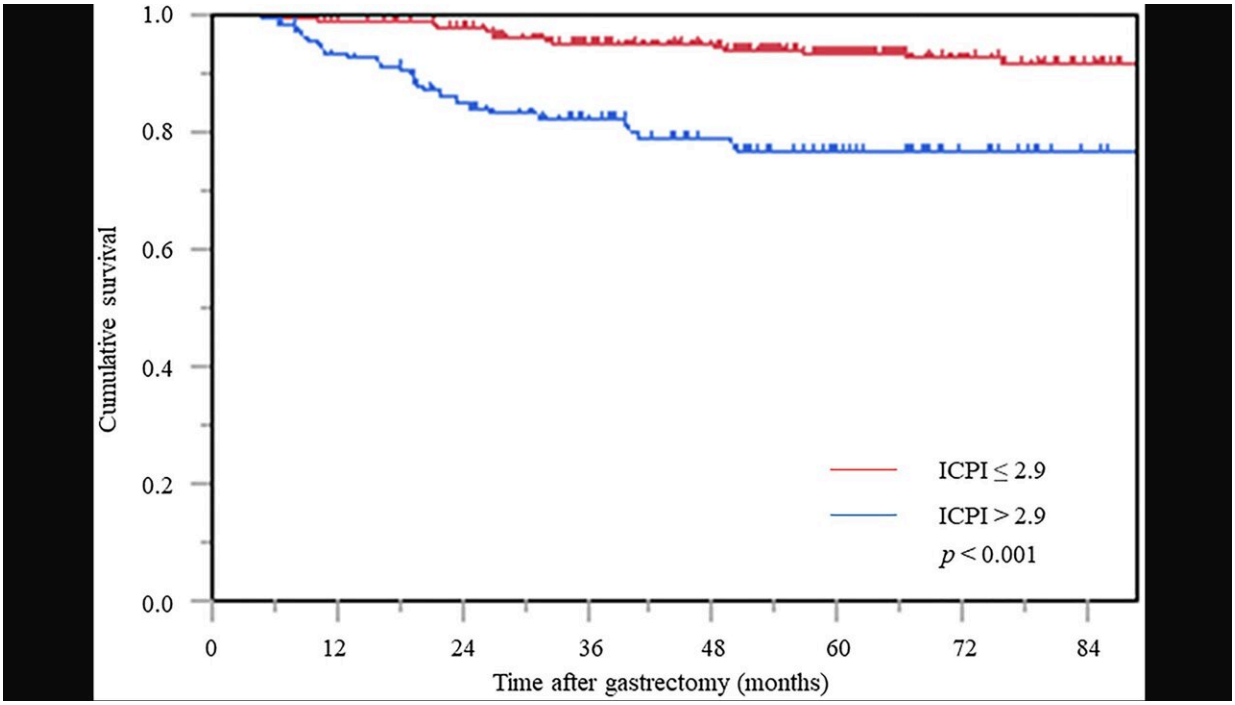

Cancer-specific survival curve based on the inflammation-based prognostic index. Abbreviation: ICPI: inflammation based prognostic index. Credit: *Oncotarget* (2023). DOI: 10.18632/oncotarget.28353

A new research paper titled "Novel inflammation-combined prognostic index to predict survival outcomes in patients with gastric cancer" has been published in *Oncotarget*.

In vivo inflammatory responses are involved in cancer growth, invasion and metastasis, and the involvement of systemic inflammatory responses and the surrounding microenvironment is intricately intertwined. In this recent study, researchers Noriyuki Hirahara, Takeshi Matsubara, Shunsuke Kaji, Hikota Hayashi, Yohei Sasaki, Koki Kawakami, Ryoji Hyakudomi, Tetsu Yamamoto, and Yoshitsugu Tajima from Shimane University Faculty of Medicine and Matsue Red Cross Hospital in Japan focused on the lymphocyte-to-monocyte ratio (LMR), neutrophil-to-lymphocyte ratio (NLR) and platelet-to-lymphocyte ratio (PLR), and devised an inflammation-combined prognostic index (ICPI) as a prognostic marker of cancer-specific survival (CSS).

The researchers write, "We reviewed the clinicopathological data of 480 patients with gastric cancer undergoing curative laparoscopic gastrectomy between 2009 and 2019. This study examined the significance of LMR, NLR, PLR, and ICPI as cancer-specific prognostic markers."

In univariate analysis, tumor diameter, histological differentiation, pathological tumor-node-metastasis (pTNM) stage, LMR, NLR, PLR, C-reactive protein (CRP) level, carcinoembryonic antigen (CEA), and postoperative chemotherapy were significantly associated with CSS. In multivariate analysis, pTNM stage and CEA were the independent risk factors for CSS, although LMR, NLR, and PLR were not the independent risk factors for CSS.

The ICPI formula was constructed using hazard ratios for three inflammation-based biomarkers with worse prognosis identified in the univariate analysis: LMR

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