Liu C, et al., J Pulm Med Respir Res 2026, 12: 096
DOI: 10.24966/PMRR-0177/100096

Journal of
Pulmonary Medicine and Respiratory Research

Research Article

Inflammation and Prognosis: Research Progress on the Clinical Value of SII in NSCLC

Chengpeng Liu[1], Wenxi Zhang[2], Jianfeng Guo[3], Zili Yuan[4] and Yu Mao[3]*

[1]*School of mathematical science, Inner Mongolia University, Hohhot, Inner Mongolia, China*

[2]*Inner Mongolia Medical University, Hohhot, Inner Mongolia, China*

[3]*Department of Thoracic Surgery, The First Hospital of Hohhot, Hohhot, Inner Mongolia, China*

[4]*Queen Mary College, Nanchang University, Nanchang, Jiangxi, China*

Abstract

Lung cancer is the malignant tumor with the highest incidence rate and mortality rate in China. The treatment options for Non-Small Cell Lung Cancer (NSCLC) include surgery, radio chemotherapy, immunotherapy, and targeted therapy. For patients with tumors, the selection of treatment strategies and prognostic evaluation are of critical importance; therefore, exploring reliable biomarkers holds significant clinical value. The Systemic Immune-Inflammation Index (SII), as a novel biomarker, comprehensively assesses the immune and inflammatory status of the tumor microenvironment by integrating peripheral blood inflammatory indicators, and is closely associated with disease progression and therapeutic response. This article provides a systematic review of the current research progress on the application of SII in the prognostic diagnosis of patients with NSCLC.

Keywords: Peripheral blood inflammatory markers; Prognostic value; SII; NSCLC

Introduction

With the advancement of globalization and population aging, the incidence rate and mortality rate of malignant tumors have risen sharply. Among them, lung cancer has the highest incidence rate of all malignant tumors (accounting for 11.6% of total cases) and is the leading cause of cancer-related deaths (accounting for 18.4% of all malignant tumor deaths) [1]. Statistical data show that lung cancer has the highest incidence rate (21.98%) and mortality rate (28.49%) among all cancers in China, and it is also the primary cause of cancer-related deaths in both men (31.66%) and women (23%) [2]. From a histological perspective, lung cancer is mainly classified into two major subtypes: small cell lung cancer and Non-Small Cell Lung Cancer (NSCLC). Among them, NSCLC accounts for approximately 85% of all lung cancer cases [3].

The Systemic Immune-Inflammation Index (SII), a novel inflammatory marker proposed by Hu et al. in 2014 [4], provides a more comprehensive assessment of the tumor immune microenvironment through the algorithm neutrophil × platelet/lymphocyte. Recent studies have shown that peripheral blood inflammatory indicators are associated with the prognosis of malignant tumors [5-9]. In particular, in NSCLC, SII, by integrating immune cells such as neutrophils, has significant prognostic predictive value [10].

Inflammation and Tumors

As early as the mid-19th century, Rudolf Virchow first proposed the theory of the association between inflammation and tumors [11], suggesting that chronic inflammation (such as ulcers or unhealed wounds) could induce malignant transformation. This pioneering concept laid a crucial foundation for subsequent research. In 1971, Folkman proposed the theory that "tumor growth depends on angiogenesis [12]." Although it did not directly focus on inflammation, angiogenesis constitutes an essential component of the inflammatory response. In 1986, Dvorak discovered that tumor cells exploit the inflammatory microenvironment to promote their own growth and survival [13]. In 2011, Hanahan and colleagues expanded the hallmark features of cancer from six to ten [14], revealing that inflammation drives cancer cell proliferation, invasion, and immune evasion through modulation of the tumor microenvironment [15]. In 2017, the Suarez-Carmona team extended the concept that "a tumor is a wound that never heals [16]," emphasizing that chronic inflammation is a defining feature of tumors. In 2022, Hanahan updated the hallmarks of cancer to fourteen, highlighting that inflammation drives tumor progression through epigenetic regulation and metabolic reprogramming [17].

Neutrophils and Malignant Tumors

Neutrophils are the most abundant type of leukocytes in peripheral blood and play a crucial role in the innate immune response. Studies have shown that neutrophils participate in the regulation of the tumor microenvironment by producing inflammatory mediators, thereby promoting tumor proliferation, angiogenesis, and metastasis, as well as facilitating tumor cell immune evasion [18-21]. Specifically, Huang et al. demonstrated that neutrophil-derived inflammatory factors enhance tumor growth and metastasis, whereas the study by Ozel and colleagues elucidated the molecular mechanism by which neutrophils promote tumor angiogenesis through the vascular endothelial growth factor (VEGF) signaling pathway [18,20].

***Corresponding author:** Yu Mao, Department of Thoracic Surgery, The First Hospital of Hohhot, Hohhot, Inner Mongolia, China, Email: hhhtmaoyu_2025@163.com

Citation: Liu C, Zhang W, Guo J, Yuan Z, Mao Y (2026) Inflammation and Prognosis: Research Progress on the Clinical Value of SII in NSCLC. J Pulm Med Respir Res 12: 096.

Received: January 06, 2026; **Accepted:** January 20, 2026; **Published:** January 27, 2026

Platelets and Malignant Tumors

Lymphocytes are a core component of the immune system and play a crucial role in the adaptive immune response. A reduction in the number of lymphocytes can impair the body's anti-tumor immune response, leading to the formation of a tumor-promoting microenvironment [22]. The Hiraoka team found that $CD8^+$ T cells and $CD4^+$ T cells synergistically inhibit cancer progression [23], and high levels of $CD8^+$ T cells and $CD4^+$ T cells are important indicators of a favorable prognosis in patients with non-small cell lung cancer (NSCLC). Scholars such as Guo [24] discovered that regulatory T cells are associated with a poor prognosis of lung adenocarcinoma. Teams led by Li et al. found that the number and subtypes of lymphocytes are closely related to the survival rate of cancer patients [25-27].

Platelets and Malignant Tumors

Platelets are important components of the circulatory system and play a crucial role in physiological and pathological processes such as hemostasis, thrombosis, inflammatory responses, and tumor metastasis. In 1865, Armand Trousseau first reported the association between platelet activation and malignant tumors [28]. Previous studies have shown that platelets promote tumor progression through multiple mechanisms: releasing factors to facilitate the proliferation and metastasis of malignant tumor cells [29,30]; enhancing vascular permeability to promote lymphatic metastasis [31]; and forming a" platelet shield" to protect tumor cells, assisting in their adhesion, extravasation, and metastatic colonization [32].

From the pioneering proposal that inflammation is associated with tumors to the confirmation that inflammation is a key hallmark of tumors, relevant studies have gradually uncovered the multidimensional role of inflammation in tumor initiation, progression, and metastasis. All existing studies indicate that inflammatory factors are closely related to tumors, and this association provides a new research direction for the early diagnosis and intervention of tumors.

Relationship Between SII and Prognosis in NSCLC Patients

Undergoing surgical treatment

Surgical treatment is the main curative method for patients with stageI-II and some stage IIIA non-small cell lung cancer (NSCLC). The surgical approaches include sublobar resection, lobectomy, pneumonectomy, and sleeve lobectomy. Currently, the prognostic evaluation indicators include Overall Survival (OS), Disease-Free Survival (DFS), Recurrence-Free Survival (RFS), Event-Free Survival (EFS), Major Pathological Response (MPR), etc.

In terms of Overall Survival (OS) and Disease-Free Survival (DFS), Gao et al.[33] were the first to confirm that a high Systemic Inflammatory Index (SII) (>395.4) was significantly associated with shorter OS. Subsequent studies by teams such as Taylor et al. further supported this conclusion [33-37], suggesting that a higher SII is associated with poorer OS and DFS. Specifically: Guo et al. used Receiver Operating Characteristic (ROC) curves and found that SII had better predictive efficacy for OS; Cox regression analysis by Ma et al. showed that SII was an independent risk factor for OS and Progression-Free Survival (PFS) ($P < 0.05$) [34,35]; Yan et al. observed that the 5-year DFS and OS rates in the low SII group (<402.37) were superior to those in the high SII group (49.7% vs. 34.9%; 54.3% vs. 38.2%) [37]. However, in a multivariate analysis, Tomita et al. found that there was no significant association between SII and 5-year survival rate ($P = 0.841$). In other aspects [38], Gao et al. discovered that the high SII group (>395.4) was more likely to present with advanced T stage ($P < 0.01$) and lymph node metastasis ($P < 0.05$) [33].

In conclusion, existing studies support the predictive value of the Systemic Inflammatory Index (SII) for the postoperative prognosis (Overall Survival/OS, Disease-Free Survival/DFS) of patients with non-small cell lung cancer (NSCLC), as it is significantly associated with tumor progression, metastasis risk, and survival outcomes. However, some studies have shown that the predictive value of SII is limited in multivariate analysis, suggesting that its clinical application requires comprehensive evaluation combined with other factors.

Non-Surgical Treatment

For patients with non-small cell lung cancer (NSCLC) who have early-stage inoperable disease, locally advanced disease (stage III), or advanced disease (stage IV), surgical resection of lesions provides limited clinical benefits. Therefore, radiotherapy or pharmacotherapy should be selected individually based on molecular characteristics and disease burden.

In clinical studies on chemoradiotherapy, Xu Ensong et al. found that the baseline SII level was significantly elevated in the group with poor treatment response [39]. Tong et al. confirmed that a high SII was associated with poorer OS, advanced T stage ($P < 0.001$), later clinical stage ($P = 0.019$), and lower treatment response rate ($P = 0.018$). For special populations [40], Zhang et al. reported that NSCLC patients with brain metastasis and a low SII (<480) had a better median PFS (11.5 vs. 9 months) and median OS (20 vs. 18 months) [41]. In clinical studies on immunotherapy, Xie Bin et al. all found that the SII level was significantly increased in patients with disease progression [42-44]. Specifically: Jin et al. confirmed that the low SII group (<531.26) had better PFS ($P < 0.05$); Liu et al. reported that patients with a low SII (≤603.5) had significantly prolonged PFS and OS ($P < 0.05$) [42,45]; Chen et al. found that a high SII (>792) was associated with poorer OS and PFS [46]. However, the teams of Zhang and Putuz did not confirm the predictive value of SII for treatment response and survival rate [47,48]. In clinical studies on targeted therapy, Gibson et al. found that patients with a high SII (≥1200) had significantly shorter PFS (15.6 vs. 10.8 months) and OS (30.4 vs. 20.1 months) (both $P < 0.001$) [49]. Multiple studies consistently confirmed that the SII level is associated with the prognostic efficacy of targeted therapy: Olmez et al. and Sebnem Yucel et al. used 934.7 and 640 as SII cut-off values, respectively, and both found that patients with a low SII had a better prognosis [50-52]; Deng et al. and Ju et al. further verified that a high SII is associated with poorer survival outcomes [53,54]; Xu Jing et al. confirmed that the pre-treatment SII has predictive value for PFS and OS [55].

In conclusion, the Systemic Inflammatory Index (SII) holds unique clinical value in the prognostic assessment of non-surgical NSCLC patients. Therefore, integrating SII into the whole-course management of non-surgical NSCLC patients is expected to improve clinical prognosis and provide potential evidence for their individualized treatment strategies. However, current studies have not yet established a standard cut-off value for SII, and the determination of cut-off values in some studies mostly relies on previous literature, lacking systematic validation research.

Neoadjuvant Therapy

Neoadjuvant therapy refers to systemic treatment administered before surgery, aiming to reduce tumor size and eliminate micrometastases [56]. Currently, neoadjuvant therapy mainly includes the following types: neoadjuvant immunotherapy, neoadjuvant chemotherapy, and neoadjuvant immunotherapy combined with chemotherapy. In the field of neoadjuvant immunotherapy research, Huai et al. found that although pre-treatment SII had limited predictive value for major pathological response (MPR) [57], a high SII was significantly associated with poorer overall survival (OS) and event-free survival (EFS) ($P < 0.05$). Ren Weidong et al. further confirmed that the pre-operative SII level in the non-MPR group was significantly higher than that in the MPR group ($P < 0.001$) [58], and the risk of non-MPR in patients with a high SII was 4.397 times that of patients with a low SII ($P < 0.001$). In the field of neoadjuvant chemotherapy research, a study by Lan et al. revealed that the SII level in the pathological complete response (pCR) group was lower than that in the non-pathological complete response group ($P < 0.01$) [59]. Logistic regression analysis confirmed that SII was a relevant factor influencing the efficacy of neoadjuvant chemotherapy ($P < 0.001$), and the receiver operating characteristic (ROC) curve showed that it had good predictive performance. However, a study by Xu et al. indicated that there was no significant correlation between SII and MPR ($P = 0.054$) [60].

In the field of neoadjuvant immunotherapy combined with chemotherapy research, Li et al. found that the SII of patients in the progressive disease (PD) group was significantly increased ($P = 0.019$), and a high SII was associated with poorer progression-free survival (PFS) [61]. Nevertheless, a multi-center study by Li et al. showed that post-treatment SII had higher predictive value for MPR than baseline SII [62].

The above studies indicate that the SII index has certain reference value in predicting the disease remission of NSCLC patients receiving neoadjuvant therapy, and is expected to provide new ideas for the optimization of neoadjuvant therapy regimens. However, current research on the correlation between the SII index and neoadjuvant targeted therapy remains relatively scarce. This field has broad exploration space and deserves focused attention and in-depth investigation in future studies.

Summary and Outlook

The occurrence and progression of tumors is a complex process, which is closely related to systemic immune function. As important indicators of the body's inflammatory and immune function, inflammatory markers exhibit observable changes during tumor progression. The expression level of SII (Systemic Inflammatory Index) can not only reflect the body's inflammatory status, but also provide auxiliary value for clinicians in evaluating preoperative tumor invasiveness, chemoradiotherapy sensitivity, and the efficacy of immunotherapy and targeted therapy in NSCLC (Non-Small Cell Lung Cancer).

However, SII still has limitations in clinical application. In current studies, there are significant differences in patient individuals and the treatment methods they receive, and no reference threshold or reference range for SII has been established yet. Based on these limitations, future studies should conduct multi-center, large-sample prospective cohort studies to establish standardized SII cut-off values, while designing randomized controlled trials to systematically evaluate the predictive value of SII in different treatment regimens. These studies will help establish the clinical status of SII in the precise diagnosis and treatment of NSCLC, and promote its transformation from a research indicator to clinical application.

Data Sharing Statement

The data that support the results of this study are available from the corresponding author on reasonable request.

Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

Ethics Approval Statement

This study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). The study was approved by the Medical Ethics Committee of Hohhot First Hospital (IRB2024323). All participants provided written informed consent prior to inclusion in the study.

Funding

This study was supported by the Funding by National Health Commission of China Medical Artificial Intelligence Clinical Application Research Project (No: YLXX24AIA023).

Disclosure of interest

The authors declare that they have no competing interests.

References

1. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, et al. (2018) Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA: A Cancer Journal For Clinicians 68: 394-424.

2. Han B, Zheng R, Zeng H, Wang S, Sun K, et al. (2024) Cancer incidence and mortality in China, 2022. Journal of the National Cancer Center 4: 47-53.

3. Herbst R S, Morgensztern D, Boshoff C (2018) The biology and management of non-small cell lung cancer. Nature 553: 446-454.

4. Hu B, Yang X-R, Xu Y, Sun Y-F, Sun C, Sun Y-F, Sun C, et al. (2014) Systemic Immune-Inflammation Index Predicts Prognosis of Patients after Curative Resection for Hepatocellular Carcinoma. Clinical Cancer Research 20: 6212-6222.

5. Banna GL, Signorelli D, Metro G, Galetta D, Toma AD, et al. (2020) Neutrophil-to-lymphocyte ratio in combination with PD-L1 or lactate dehydrogenase as biomarkers for high PD-L1 non-small cell lung cancer treated with first-line pembrolizumab. Transl Lung Cancer Res 9: 1533-1542.

6. Diakos CI, Charles KA, Mcmillan DC, Clarke SJ (2014) Cancer-related inflammation and treatment effectiveness. Lancet Oncology 15: 493-503.

7. Petrova MP, Donev IS, Radanova MA, Eneva MI, Dimitrova EG, et al. (2020) Sarcopenia and high NLR are associated with the development of hyperprogressive disease after second-line pembrolizumab in patients with non-small-cell lung cancer. Clinical and Experimental Immunology 202: 353-362.

8. Simonaggio A, Elaidi R, Fournier L, Fabre E, Ferrari V, et al. (2020) Variation in neutrophil to lymphocyte ratio (NLR) as predictor of outcomes in metastatic renal cell carcinoma (mRCC) and non-small cell lung cancer (mNSCLC) patients treated with nivolumab. Cancer Immunology Immunotherapy 69: 2513-2522.

9. Zhang Z, Zhang F, Yuan F, Li Y, Ma J, et al. (2020) Pretreatment hemoglobin level as a predictor to evaluate the efficacy of immune checkpoint inhibitors in patients with advanced non-small cell lung cancer. Therapeutic Advances in Medical Oncology 12: 1758835920970049.

10. Wang XB, Dai C, Yu ZC (2018) Expression of inflammation-related cytokines in serum of patients with non-small cell lung cancer and influencing factors of their changes. Journal of Modern Oncology 26: 1540-1544.

11. Balkwill F, Mantovani A (2001) Inflammation and cancer: back to Virchow? Lancet 357: 539-545.

12. Folkman J (1971) Tumor angiogenesis: therapeutic implications. N Engl J Med 285: 1182-1186.

13. Dvorak HF (1986) Tumors: wounds that do not heal. Similarities between tumor stroma generation and wound healing. N Engl J Med 315: 1650-1659.

14. Hanahan D, Weinberg RA (2000) The hallmarks of cancer. Cell 100: 57-70.

15. Hanahan D, Weinberg RA (2011) Hallmarks of Cancer: The Next Generation. Cell 144: 646-674.

16. Suarez-Carmona M, Lesage J, Cataldo D, Gilles C, et al. (2017) EMT and inflammation: inseparable actors of cancer progression. Molecular Oncology 11: 805-823.

17. Hanahan D (2022) Hallmarks of Cancer: New Dimensions. Cancer Discovery 12: 31-46.

18. Huang H, Zhang H, Onuma AE, Tsung A, et al. (2020) Neutrophil Elastase and Neutrophil Extracellular Traps in the Tumor Microenvironment. Tumor Microenvironment: State of the Science.

19. Mantovani A, Allavena P, Sica A, Balkwill F (2008) Cancer-related inflammation. Nature 454: 436-444.

20. Ozel I, Duerig I, Domnich M, Lang S, Pylaeva E, et al. (2022) The Good, the Bad, and the Ugly: Neutrophils, Angiogenesis, and Cancer. Cancers 14: 536.

21. Szczerba B M, Castro-Giner F, Vetter M, Krol I, Gkountela S et al. (2019) Neutrophils escort circulating tumour cells to enable cell cycle progression. Nature 566: 553-557.

22. Sylman JL, Mitrugno A, Atallah M, Tormoen GW, Shatzel JJ, et al. (2018) The Predictive Value of Inflammation-Related Peripheral Blood Measurements in Cancer Staging and Prognosis. Frontiers in Oncology, 8: 78.

23. Hiraoka K, Miyamoto M, Cho Y, Suzuoki M, Oshikiri T, et al. (2006) Concurrent infiltration by CD8+ T cells and CD4+T cells is a favourable prognostic factor in non-small-cell lung carcinoma. British Journal of Cancer 94: 275-280.

24. Guo XY, Zhang YY, Zheng LT, Zheng C, Song J, et al. (2018) Global characterization of T cells in non-small-cell lung cancer by single-cell sequencing. Nature Medicine 24: 978-985.

25. Li F, Li CC, Cai XY (2021) The association between CD8+tumor-infiltrating lymphocytes and the clinical outcome of cancer immunotherapy: A systematic review and meta-analysis. Eclinicalmedicine 41: 101134.

26. Xia LL, Wang H, Sun MJ, Yang Y, Yao C, et al. (2021) Peripheral CD4+ T cell signatures in predicting the responses to anti-PD-1/PD-L1 monotherapy for Chinese advanced non-small cell lung cancer. Science China-Life Sciences 64: 1590-1601.

27. Yin QM, Su ZH, Wang G, Hui L, Lian G, et al. (2021) Recent advances in the role of Th17/Treg cells in tumor immunity and tumor therapy. Immunologic Research 69: 398-414.

28. Victor BP (1864) Clinical Lectures on Medicine Delivered at the Hotel-Dieu, Paris. The British and foreign medico-chirurgical review 33: 45-54.

29. Dongre A, Weinberg RA (2019) New insights into the mechanisms of epithelial-mesenchymal transition and implications for cancer. Nat Rev Mol Cell Biol 20: 69-84.

30. He A-D, Xie W, Song W, Ma Y-Y, Liu G, et al. (2017) Platelet releasates promote the proliferation of hepatocellular carcinoma cells by suppressing the expression of KLF6. Scientific Reports 7: 3989.

31. Stone R L, Nick A M, Mcneish IA, Balkwill F, Han HD, et al. (2012) Paraneoplastic Thrombocytosis in Ovarian Cancer. New England Journal of Medicine 366: 610-618.

32. Lowe KL, Navarro-Nunez L, Watson SP (2012) Platelet CLEC-2 and podoplanin in cancer metastasis [J]. Thrombosis Research 129: 30-37.

33. Gao YY, Zhang HD, Li Y, Wang D, Ma Y, et al. (2018) Preoperative increased systemic immune-inflammation index predicts poor prognosis in patients with operable non-small cell lung cancer. Clinica Chimica Acta 484: 272-277.

34. Guo W, Cai SH, Zhang F, Shao F, Zhang G, et al. (2019) Systemic immune-inflammation index (SII) is useful to predict survival outcomes in patients with surgically resected non-small cell lung cancer. Thoracic Cancer 10: 761-768.

35. Ma MT, Luo MQ, Liu QY, Shao F, Zhang G, et al. (2024) Influence of abdominal fat distribution and inflammatory status on post-operative prognosis in non-small cell lung cancer patients: a retrospective cohort study. Journal of Cancer Research and Clinical Oncology 150: 111.

36. Taylor M, Evison M, Michael S, Obale E, Fritsch NC, et al. (2024) Pre-Operative Measures of Systemic Inflammation Predict Survival After Surgery for Primary Lung Cancer. Clinical Lung Cancer 25: 460-467.

37. Yan X, Li GW (2020) Preoperative systemic immune-inflammation index predicts prognosis and guides clinical treatment in patients with non-small cell lung cancer. Bioscience Reports 40: 0200352.

38. Tomita M, Ayabe T, Maeda R, Maeda R, Nakamura K (2018) Comparison of Inflammation-Based Prognostic Scores in Patients undergoing Curative Resection for Non-small Cell Lung Cancer. World journal of oncology 9: 85-90.

39. Xu ES, Zuo YY, Li YX (2025) Predictive Value of Peripheral Blood NLR, PLR, and SII for Chemotherapy Efficacy in Patients with Advanced NSCLC. Journal of Practical Oncology 40: 369-372.

40. Tong Y-S, Tan J, Zhou X-L, Song Y-Q, Song Y-J, et al. (2017) Systemic immune-inflammation index predicting chemoradiation resistance and poor outcome in patients with stage III non-small cell lung cancer. Journal of Translational Medicine 15: 221.

41. Zhang Y, Chen Z, Jin F, Guo D, Chen Q, et al. (2021) The Value of the Systemic Immune-Inflammation Index in Predicting Survival Outcomes in Patients with Brain Metastases of Non-Small-Cell Lung Cancer Treated with Stereotactic Radiotherapy. Mediators of Inflammation 2021: 2910892.

42. Jin C-X, Liu Y-S, Qin H-N (2025) Peripheral inflammatory factors as prognostic predictors for first-line PD-1/PD-L1 inhibitors in advanced non-small cell lung cancer. Scientific Reports 15: 11206.

43. Duan H J, Li X , Dang A (2023) Predictive Value of Systemic Immune-Inflammation Index and Peripheral Blood-Related Indicators for Prognosis in Patients with Advanced Non-Small Cell Lung Cancer. Journal of Practical Clinical Medicine 20: 74-78.

44. Xie B, Wei WP, Xu YQ (2023) Evaluation of Therapeutic Response to PD-1 Inhibitors in Elderly Patients with Non-Small Cell Lung Cancer Using Systemic Immune-Inflammation Index Combined with Circulating Tumor Cells. Chinese Journal of Gerontology 43: 2604-2606.

45. Liu J, Li S, Zhang S, LiuY, Ma L, et al. (2019) Systemic immune-inflammation index, neutrophil-to-lymphocyte ratio, platelet-to-lymphocyte ratio can predict clinical outcomes in patients with metastatic non-small-cell lung cancer treated with nivolumab. J Clin Lab Anal 33: 22964.

46. Chen G, Bao B, Ye Y, Hu A, Sun J, et al. (2025) Prognostic value of the systemic immune-inflammation index in non-small cell lung cancer patients treated with immune checkpoint inhibitors: a systematic review and meta-analysis. Front Oncol 15: 1532343.

47. Zhang Y, Yan N, Feng Y, Wu Y, Sun Y, et al. (2025) Inflammatory markers predict efficacy of immunotherapy in advanced non-small cell lung cancer: a preliminary exploratory study. Discov Oncol 16: 8.

48. Putzu C, Serra R, Campus R, Fadda GM, Sini C, et al. (2024) Complete Blood Count-Based Biomarkers as Predictors of Clinical Outcomes in Advanced Non-Small Cell Lung Cancer Patients with PD-L1 < 50% Treated with First-Line Chemoimmunotherapy. Curr Oncol 31: 4955-4967.

49. Gibson A, Tudor R, Dean M (2021) Prognostic Role of the Systemic Immune-Inflammatory Index (SII) in Driver-Mutation Positive NSCLC: Real-World EGFR-Mutant Disease. Journal of Thoracic Oncology 16: 593-593.

50. Olmez OF, Bilici A, Gursoy P, Cubukcu E, Sakin A, et al. (2023) Impact of systemic inflammatory markers in patients with ALK-positive non-small cell lung cancer treated with crizotinib. Pulmonology 29: 478-485.

51. Yucel S, Bilgin B (2021) The prognostic values of systemic immune-inflammation index and derived neutrophil-lymphocyte ratio in EGFR-mutant advanced non-small cell lung cancer. Journal of Oncology Pharmacy Practice 27: 71-77.

52. Zhang Y, Chen B, Wang L, Wang R, Yang X, et al. (2019) Systemic immune-inflammation index is a promising noninvasive marker to predict survival of lung cancer A meta-analysis. Medicine 98: 13788.

53. Deng C, Zhang N, Wang Y, Jiang S, Lu M, et al. (2019) High systemic immune-inflammation index predicts poor prognosis in advanced lung adenocarcinoma patients treated with EGFR-TKIs. Medicine 98: 16875.

54. Ju Q, Huang T, Zhang Y, Wu L, Geng J, et al. (2021) Systemic immune-inflammation index predicts prognosis in patients with different EGFR-mutant lung adenocarcinoma. Medicine 100: 24640.

55. Xu J, Ma XY, Gao HJ (2022) Study on the Prognostic Value of Pre-Treatment Peripheral Blood Inflammatory Markers in Patients with EGFR Mutation-Positive Advanced Non-Small Cell Lung Cancer. Chinese Journal of Clinical Oncology 49: 395-400.

56. Korde LA, Somerfield MR, Carey LA, Crews JR, Denduluri N, et al. (2021) Neoadjuvant Chemotherapy, Endocrine Therapy, and Targeted Therapy for Breast Cancer: ASCO Guideline. Journal of Clinical Oncology, 39: 1485-1505.

57. Huai Q, Luo C, Song P, Bie F, Bai G, et al. (2023) Peripheral blood inflammatory biomarkers dynamics reflect treatment response and predict prognosis in non-small cell lung cancer patients with neoadjuvant immunotherapy [J]. Cancer Science 114: 4484-4498.

58. Ren WD, Shi MH, Xun YF (2025) Correlation Analysis of Pre-Treatment Peripheral Blood PLR, CAR, and SII Expression with Neoadjuvant Immunotherapy Response in Locally Advanced NSCLC. Laboratory Medicine and Clinical Science 22: 1343-1349.

59. Lan J, Lin W, Lai Y (2024) Original Article Predictive value of pre-operative prognostic nutritional index and systemic immune-inflammation index for efficacy and survival in patients with non-small cell lung cancer undergoing neoadjuvant chemotherapy. American Journal of Translational Research 16: 2024-2033.

60. Xu F, Zhu H, Xiong D, Wang K, Dong Y, et al. (2024) Tertiary lymphoid structures combined with biomarkers of inflammation are associated with the efficacy of neoadjuvant immunochemotherapy in resectable non-small cell lung cancer: A retrospective study. Thoracic Cancer 15: 172-181.

61. Li B, Wang S, Li C, Guo M, Xu Y, et al. (2019) The Kinetic Changes of Systemic Inflammatory Factors during Bevacizumab Treatment and Its Prognostic Role in Advanced Non-small Cell Lung Cancer Patients [J]. Journal of Cancer 10: 5082-5089.

62. Li C, Wu J, Jiang L, Zhang L, Huang J, et al. (2022) The predictive value of inflammatory biomarkers for major pathological response in non-small cell lung cancer patients receiving neoadjuvant chemoimmunotherapy and its association with the immune-related tumor microenvironment: a multi-center study. Cancer Immunology, Immunotherapy 72: 783-794.

HERALD

Advances In Industrial Biotechnology | ISSN: 2639-5665

Advances In Microbiology Research | ISSN: 2689-694X

Archives Of Surgery And Surgical Education | ISSN: 2689-3126

Archives Of Urology

Archives Of Zoological Studies | ISSN: 2640-7779

Current Trends Medical And Biological Engineering

International Journal Of Case Reports And Therapeutic Studies | ISSN: 2689-310X

Journal Of Addiction & Addictive Disorders | ISSN: 2578-7276

Journal Of Agronomy & Agricultural Science | ISSN: 2689-8292

Journal Of AIDS Clinical Research & STDs | ISSN: 2572-7370

Journal Of Alcoholism Drug Abuse & Substance Dependence | ISSN: 2572-9594

Journal Of Allergy Disorders & Therapy | ISSN: 2470-749X

Journal Of Alternative Complementary & Integrative Medicine | ISSN: 2470-7562

Journal Of Alzheimers & Neurodegenerative Diseases | ISSN: 2572-9608

Journal Of Anesthesia & Clinical Care | ISSN: 2378-8879

Journal Of Angiology & Vascular Surgery | ISSN: 2572-7397

Journal Of Animal Research & Veterinary Science | ISSN: 2639-3751

Journal Of Aquaculture & Fisheries | ISSN: 2576-5523

Journal Of Atmospheric & Earth Sciences | ISSN: 2689-8780

Journal Of Biotech Research & Biochemistry

Journal Of Brain & Neuroscience Research

Journal Of Cancer Biology & Treatment | ISSN: 2470-7546

Journal Of Cardiology Study & Research | ISSN: 2640-768X

Journal Of Cell Biology & Cell Metabolism | ISSN: 2381-1943

Journal Of Clinical Dermatology & Therapy | ISSN: 2378-8771

Journal Of Clinical Immunology & Immunotherapy | ISSN: 2378-8844

Journal Of Clinical Studies & Medical Case Reports | ISSN: 2378-8801

Journal Of Community Medicine & Public Health Care | ISSN: 2381-1978

Journal Of Cytology & Tissue Biology | ISSN: 2378-9107

Journal Of Dairy Research & Technology | ISSN: 2688-9315

Journal Of Dentistry Oral Health & Cosmesis | ISSN: 2473-6783

Journal Of Diabetes & Metabolic Disorders | ISSN: 2381-201X

Journal Of Emergency Medicine Trauma & Surgical Care | ISSN: 2378-8798

Journal Of Environmental Science Current Research | ISSN: 2643-5020

Journal Of Food Science & Nutrition | ISSN: 2470-1076

Journal Of Forensic Legal & Investigative Sciences | ISSN: 2473-733X

Journal Of Gastroenterology & Hepatology Research | ISSN: 2574-2566

Journal Of Genetics & Genomic Sciences | ISSN: 2574-2485

Journal Of Gerontology & Geriatric Medicine | ISSN: 2381-8662

Journal Of Hematology Blood Transfusion & Disorders | ISSN: 2572-2999

Journal Of Hospice & Palliative Medical Care

Journal Of Human Endocrinology | ISSN: 2572-9640

Journal Of Infectious & Non Infectious Diseases | ISSN: 2381-8654

Journal Of Internal Medicine & Primary Healthcare | ISSN: 2574-2493

Journal Of Light & Laser Current Trends

Journal Of Medicine Study & Research | ISSN: 2639-5657

Journal Of Modern Chemical Sciences

Journal Of Nanotechnology Nanomedicine & Nanobiotechnology | ISSN: 2381-2044

Journal Of Neonatology & Clinical Pediatrics | ISSN: 2378-878X

Journal Of Nephrology & Renal Therapy | ISSN: 2473-7313

Journal Of Non Invasive Vascular Investigation | ISSN: 2572-7400

Journal Of Nuclear Medicine Radiology & Radiation Therapy | ISSN: 2572-7419

Journal Of Obesity & Weight Loss | ISSN: 2473-7372

Journal Of Ophthalmology & Clinical Research | ISSN: 2378-8887

Journal Of Orthopedic Research & Physiotherapy | ISSN: 2381-2052

Journal Of Otolaryngology Head & Neck Surgery | ISSN: 2573-010X

Journal Of Pathology Clinical & Medical Research

Journal Of Pharmacology Pharmaceutics & Pharmacovigilance | ISSN: 2639-5649

Journal Of Physical Medicine Rehabilitation & Disabilities | ISSN: 2381-8670

Journal Of Plant Science Current Research | ISSN: 2639-3743

Journal Of Practical & Professional Nursing | ISSN: 2639-5681

Journal Of Protein Research & Bioinformatics

Journal Of Psychiatry Depression & Anxiety | ISSN: 2573-0150

Journal Of Pulmonary Medicine & Respiratory Research | ISSN: 2573-0177

Journal Of Reproductive Medicine Gynaecology & Obstetrics | ISSN: 2574-2574

Journal Of Stem Cells Research Development & Therapy | ISSN: 2381-2060

Journal Of Surgery Current Trends & Innovations | ISSN: 2578-7284

Journal Of Toxicology Current Research | ISSN: 2639-3735

Journal Of Translational Science And Research

Journal Of Vaccines Research & Vaccination | ISSN: 2573-0193

Journal Of Virology & Antivirals

Sports Medicine And Injury Care Journal | ISSN: 2689-8829

Trends In Anatomy & Physiology | ISSN: 2640-7752

Herald Scholarly Open Access, 2561 Cornelia Rd, #205, Herndon, VA 20171, USA.
Tel: +1 202-499-9679; E-mail: finalproof@heraldsopenaccess.org
http://www.heraldopenaccess.us/