diagnóstico integrado, neste caso onde o hemograma e mielograma foram sugestivos de fase crônica e a biópsia de medula óssea e a citometria de fluxo detectaram a presença de linfoblastos, possibilitando diagnóstico de crise blástica linfoide.

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https://doi.org/10.1016/j.htct.2025.104426

ID - 1866

INFLAMMATORY INDICES AS INDICATORS OF IMMUNE ACTIVATION AND THROMBOTIC RISK IN PHILADELPHIA-NEGATIVE MYELOPROLIFERATIVE NEOPLASMS

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Introduction: Philadelphia-negative myeloproliferative neoplasms (MPNs) are hematopoietic disorders characterized by clonal proliferation of myeloid cells, chronic inflammation, and an increased risk of thrombotic and hemorrhagic events. Hemogram-derived indices such as the neutrophil-to-lymphocyte ratio (NLR), platelet-to-lymphocyte ratio (PLR), and systemic immune-inflammation index (SII) have been investigated as accessible, non-invasive tools to assess the inflammatory status and thrombotic risk stratification in various diseases, including MPNs. However, clinical data supporting their application in this context remain limited. **Objectives:** To evaluate the inflammatory indices NLR, PLR, and SII in patients with MPNs compared to healthy controls, and to discuss their relevance as potential biomarkers of systemic inflammation and immune activation in these patients. **Material and methods:** Retrospective data from 16 patients with MPNs and 16 healthy individuals were analyzed. Inflammatory indices were calculated using absolute counts of neutrophils, lymphocytes, and platelets. NLR, PLR, and SII values were compared between groups, with emphasis on patients presenting the most significant alterations. This study was supported by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Brasil (CAPES), Finance Code 001. **Results:** MPN patients showed significantly higher inflammatory indices compared to healthy controls. NLR values above 2.0 ($p = 0.0088$) and PLR values above 200 ($p = 0.0136$) indicate marked immune activation, a characteristic feature in these patients. Although the SII—which integrates platelet and neutrophil counts relative to lymphocyte count—was also elevated, it showed greater inter-individual variability ($p = 0.0014$). The integrated interpretation of these indices reinforces the presence of systemic inflammation and a potential increased thrombotic risk in MPN patients. **Discussion and conclusion:** NLR, PLR, and SII have emerged as predictors of adverse outcomes in malignancies and cardiovascular diseases. In the context of Philadelphia-negative myeloproliferative neoplasms (MPNs), chronic inflammation plays a central role in disease pathogenesis and contributes to endothelial activation, neutrophil extracellular trap (NET) release, and other hematologic alterations that promote thrombosis. Evaluating these indices, which are easily derived from routine complete blood counts, offers a practical, low-cost approach with promising clinical utility. Despite being still underutilized, these markers may assist in the early identification of patients at increased thromboinflammatory risk, enabling the timely implementation of antithrombotic prophylaxis. Taken together, the significant elevation of NLR, PLR, and SII in MPN patients supports their potential use as complementary biomarkers for assessing systemic inflammation and stratifying thrombotic risk in this chronically inflamed population. However, further large-scale studies are warranted to validate their applicability and support their incorporation into clinical decision-making processes.

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