

Abstrak

Hubungan Antara Rasio Trombosit Limfosit Terhadap Prognosis Menggunakan Nottingham Prognostic Index Pada Penderita Kanker Payudara Di RSUP Dr. Sardjito

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Latar Belakang: Kanker payudara merupakan salah satu jenis tumor yang paling banyak ditemukan pada wanita dan kejadiannya meningkat di dunia (2,1 juta kasus baru kanker payudara tahun 2018). Inflamasi memiliki peran penting dalam timbulnya kanker dan pertumbuhan kanker. Trombosit berperan dalam mempromosikan sel tumor untuk angiogenesis, metastasis, dan melindungi sel tumor dari respon imun anti tumor. Limfosit memiliki aktivitas sitotoksik dan menginduksi apoptosis sel tumor yang dapat mengontrol pertumbuhan tumor. Hubungan antara rasio limfosit trombosit dan prognosis kanker payudara masih kontroversial dan belum dikonfirmasi.

Tujuan: Mengetahui hubungan rasio trombosit-limfosit terhadap prognosis menggunakan Nottingham Prognostic Index pada pasien kanker payudara di RSUP Dr. Sardjito.

Materi dan Metode: Subjek penelitian adalah pasien kanker payudara yang dirawat di RSUP Dr. Sardjito tahun 2018-2019 dengan total 304 sampel yang dilihat secara retrospektif menggunakan rekam medis pasien. Rasio limfosit trombosit adalah trombosit dibagi dengan limfosit absolut. Pasien dikelompokkan menjadi 2 kategori menurut skor PLR: rendah ≤ 185 dan tinggi > 185 . NPI = ukuran kanker invasif maksimum (S) x 0,2 + stadium kelenjar getah bening (LN = 1, 2, atau 3) + tingkat histologis (H = 1, 2, atau 3). Pasien dikelompokkan menjadi 2 kategori menurut skor NPI: baik $\leq 5,4$ dan buruk $> 5,4$.

Hasil: Uji statistik Chi Square PLR dan NPI menunjukkan $p = 0,027$ ($p < 0,05$), OR 1,796 dengan 95% CI 1,064 - 3,033. Rasio limfosit trombosit terhadap skor Nottingham Prognostic Index memiliki hubungan yang signifikan.

Kesimpulan: Terdapat hubungan antara rasio trombosit-limfosit terhadap prognosis menggunakan Nottingham Prognostic Index pada penderita kanker payudara di RSUP Dr. Sardjito.

Kata Kunci: kanker payudara, rasio trombosit limfosit, nottingham prognostic index, prognosis

Abstract

The Relationship Between Platelet-Lymphocyte Ratio against Prognosis Using Nottingham Prognostic Index in Breast Cancer Patients at Dr. Sardjito Hospital

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Background: Breast cancer is a type of tumors are most often found in women and the incidence to increase in the world (2.1 million new cases breast cancer in 2018). Inflammation has an important role in the onset of cancer, growth and development of cancer. Platelets have a role to promote tumor cells for angiogenesis, metastasis, and protect tumor cells from anti-tumor immune responses. Lymphocytes have cytotoxic activity and induce apoptosis of tumor cells which can control tumor growth. The relationship between platelet lymphocyte ratio and prognosis of breast cancer is controversial and unconfirmed.

Aim: Determine the relationship between the platelet-lymphocyte ratio against prognosis using the Nottingham Prognostic Index in breast cancer patients at Dr. Sardjito Hospital.

Material and Methods: The research subjects were breast cancer patients who were treated at Dr. Sardjito Hospital in 2018-2019 with total sample in this study was 304 samples seen retrospectively using patient medical records. Platelet lymphocyte ratio is platelet divided by the absolute lymphocytes. Patients were grouped into 2 categories according to the PLR score: low ≤ 185 and high >185 . NPI = maximum invasive cancer size (S) $\times 0.2$ + lymph node stage (LN = 1, 2, or 3) + histological grade (H = 1, 2, or 3). Patients were grouped into 2 categories according to the NPI score: good $\leq 5,4$ and poor $>5,4$.

Results: Chi Square PLR and NPI statistical tests showed $p = 0.027$ ($p < 0.05$), OR 1,796 with 95% CI 1,064 – 3,033. Platelets lymphocyte ratio against Nottingham Prognostic Index score has a significant relationship.

Conclusion: There is a relationship between the platelet-lymphocyte ratio against prognosis using the Nottingham Prognostic Index in breast cancer patients at RSUP Dr. Sardjito.

Keywords: breast cancer, platelet lymphocyte ratio, nottingham prognostic index, prognosis