

INTISARI

PENILAIAN RISIKO KEJADIAN NEUTROPENIA BERAT PASCA KEMOTERAPI SIKLUS PERTAMA BERDASARKAN SKOR *GERIATRIC* 8 DAN PENILAIAN *GESTALT* PADA PASIEN LANJUT USIA DENGAN *DIFFUSE LARGE B-CELL LYMPHOMA*

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Latar Belakang

Manajemen *Diffuse Large B Cell Lymphoma* (DLBCL) pada lanjut usia (lansia) memiliki tantangan tersendiri. Lansia memiliki kemungkinan *overtreatment* atau *undertreatment*. *Comprehensive geriatric assessment* (CGA) merupakan standar baku untuk mendeteksi kerentanan dan dapat memprediksi toksisitas kemoterapi derajat berat, tetapi aplikasi klinis lebih memakan waktu. Pada umumnya praktisi klinis menggunakan penilaian *gestalt* dalam menilai risiko toksisitas kemoterapi, tetapi berpotensi bias 35%. *Geriatric 8* (G8) sebagai salah satu alat skrining praktis untuk menilai prediksi toksisitas kemoterapi pada lansia. Tujuan penelitian ini adalah ingin mengetahui nilai prediksi kejadian neutropenia berat berdasarkan skor G8 dan penilaian *gestalt* pada pasien lansia DLBCL yang mendapatkan kemoterapi siklus pertama. Selain itu, juga ingin menentukan sensitivitas dan spesifisitas penilaian G8 dalam memprediksi risiko terjadinya neutropenia berat pada pasien lansia DLBCL.

Metode

Terdapat 74 pasien terdiagnosis DLBCL sejak September 2023 hingga Agustus 2024 diikuti penelitian ini. Subjek penelitian dilakukan penilaian *gestalt* dan G8 sebelum kemoterapi siklus pertama. Evaluasi nilai neutrofil absolut dilakukan pasca kemoterapi siklus pertama. Prediksi terjadinya neutropenia berat dianalisis dengan uji *Chi-square* atau uji *Fisher's exact*. Validitas penilaian skor G8 menggunakan kurva ROC. Faktor-faktor yang mempengaruhi neutropenia berat dianalisis bivariat, jika $p < 0,05$ dilanjutkan analisa multivariat regresi logistik.

Hasil

Pada penelitian ini terdapat 30 (40,5%) pasien neutropenia berat dan 44 (59,5%) pasien non neutropenia berat. Skor G8 dengan *cut off point* 11,5 memiliki nilai AUC 0,523; sensitivitas 50%; dan spesifisitas 56,7% ($p=0,811$). Skor $G8 \leq 11$ tidak dapat memprediksi kejadian neutropenia berat pada pasien dengan kemoterapi dosis standar (RR 1,046; 95%IK 0,322-3,395; $p=0,94$). Berdasarkan penilaian *gestalt*, pasien *frail* memiliki kecenderungan lebih tinggi mengalami neutropenia berat

dibandingkan pasien *fit* (RR 3,462; 95%IK 0,715-16,753; $p=0,132$). Penilaian *gestalt* dapat memprediksi terjadinya non neutropenia berat lebih baik pada pasien *fit*, namun tidak pada pasien *frail* (sensitivitas 27,8%; spesifisitas 90%).

Simpulan

Pada penelitian ini, skor G8 dan penilaian *gestalt* tidak dapat memprediksi neutropenia berat. Tingginya kejadian neutropenia berat pada pasien lansia DLBCL yang mendapatkan kemoterapi dan tidak adanya alat skrining tervalidasi dengan tepat, maka direkomendasikan pemberian profilaksis GCSF untuk mencegah neutropenia berat.

Kata kunci: lansia, *Diffuse Large B Cell Lymphoma* (DLBCL), *Geriatric 8* (G8), penilaian *gestalt*, neutropenia berat

Abstract

RISK ASSESSMENT OF SEVERE NEUTROPENIA AFTER FIRST CYCLE CHEMOTHERAPY BASED ON GERIATRIC 8 SCORE AND GESTALT ASSESSMENT IN ELDERLY PATIENTS WITH DIFFUSE LARGE B-CELL LYMPHOMA

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Background

Managing Diffuse Large B Cell Lymphoma (DLBCL) in elderly patients presents challenges, as they are at risk for both overtreatment and undertreatment. The Comprehensive Geriatric Assessment (CGA) is the gold standard for identifying vulnerabilities and predicting chemotherapy toxicity, but its clinical application is time-consuming. Clinicians often rely on gestalt assessments, though this method has a potential bias of 35%. The Geriatric 8 (G8) is a practical screening tool to assess chemotherapy toxicity in elderly patients. This study aims to evaluate the predictive value of severe neutropenia based on the G8 score and gestalt assessment in elderly DLBCL patients receiving their first chemotherapy cycle. It also seeks to determine the sensitivity and specificity of the G8 assessment in predicting severe neutropenia risk in these patients.

Methods

Seventy-four patients diagnosed with DLBCL between September 2023 and August 2024 were included. Patients underwent gestalt and G8 assessments before their first chemotherapy cycle. Absolute neutrophil count (ANC) was evaluated after the first cycle. Severe neutropenia prediction was analyzed using the Chi-square or Fisher's exact test. The validity of the G8 score was assessed with the ROC curve. Factors affecting severe neutropenia were analyzed bivariately, with multivariate logistic regression if $p < 0.25$.

Results

Of the 74 patients, 30 (40.5%) experienced severe neutropenia, and 44 (59.5%) did not. The G8 score, with a cutoff of 11.5, had an AUC of 0.523, sensitivity of 50%, and specificity of 56.7% ($p=0.811$). A G8 score ≤ 11 did not predict severe neutropenia in patients receiving standard-dose chemotherapy (RR 1.046; 95% CI 0.322–3.395; $p=0.94$). The gestalt assessment indicated frail patients were more likely to experience severe neutropenia than fit patients (RR 3.462; 95% CI 0.715–16.753; $p=0.132$). The gestalt assessment was more effective in predicting non-

severe neutropenia in fit patients, but not in frail patients (sensitivity 27.8%; specificity 90%).

Conclusion

Neither the G8 score nor the gestalt assessment accurately predicted severe neutropenia. Given the high incidence of severe neutropenia in elderly DLBCL patients, it is recommended to administer GCSF prophylaxis to prevent severe neutropenia.

Keywords: elderly, Diffuse Large B Cell Lymphoma (DLBCL), Geriatric 8 (G8), gestalt assessment, severe neutropenia.