

ABSTRAK

LATAR BELAKANG: Kanker ovarium merupakan salah satu keganasan pada perempuan yang paling sering dan mematikan. Angka kejadian kanker ovarium di Indonesia mencapai 15 per 100.000 dan menempati urutan kelima penyebab kematian terbanyak akibat kanker pada wanita di Indonesia. Lebih dari 75% pasien kanker ovarium terdiagnosis pada stadium lanjut. Setelah menjalani tatalaksana primer, 50% pasien akan mengalami rekurensi dalam waktu 1 tahun, dan angka 5 *years survival rate* kurang dari 50%. Secara umum, prognosis kanker ovarium epitelial secara independen dipengaruhi oleh stadium, tipe dan derajat histologis, serta diameter residu maksimum setelah operasi sitoreduktif. Rasio neutrofil-limfosit (RNL), suatu prediktor status inflamasi, telah terbukti menjadi penanda prognostik yang efektif untuk sebagian keganasan, termasuk keganasan ovarium. Nilai RNL yang tinggi menggambarkan kecenderungan peningkatan inflamasi pro-tumor dan penurunan kapasitas imun anti-tumor.

TUJUAN: Mengetahui hubungan antara Rasio Neutrofil-Limfosit (RNL) pra pembedahan primer dengan prognosis kanker ovarium epitelial pada pasien kanker ovarium di RSUP Dr. Sardjito, Yogyakarta.

METODE: Penelitian ini merupakan penelitian uji prognosis dengan rancangan kohort retrospektif yang melibatkan 106 penderita kanker ovarium di RSUP Sardjito yang memenuhi kriteria inklusi. Sumber data berasal dari data sekunder yang diambil dari Instalasi Catatan Medik (ICM) dalam kurun waktu Januari 2016 sampai dengan Maret 2019.

HASIL: Dari 106 subjek, didapatkan rerata usia pasien adalah 48.58 dengan 69.8% subjek merupakan multipara. Sebanyak 50.94% subyek didapatkan dalam stadium lanjut (III dan IV) dan 71.7% merupakan tumor *high grade*. Risiko relatif subyek dengan $RNL \geq 3,1$ yang mengalami *Progression Free Survival* (PFS) ≤ 12 bulan adalah sebesar 9.896 (CI 95% = 1.646-101.413, $p = 0.003$). Analisis hubungan antara umur, indeks massa tubuh, paritas, kadar CA-125 pre operatif, stadium, dan *tumor grade* dengan RNL menunjukkan bahwa secara statistik maupun klinis hanya stadium yang memiliki hubungan yang bermakna dengan RNL (RR = 1.618, CI 95% = 1.179-2.220, $p = 0.002$). Analisis hubungan antara umur, indeks massa tubuh, paritas, kadar CA-125 pre operatif, stadium, dan *tumor grade* dengan PFS menunjukkan bahwa secara statistik maupun klinis hanya stadium yang memiliki hubungan yang bermakna dengan PFS (RR = 3.370, CI 95% = 1.187-9.573, $p = 0.012$). Hasil analisis multivariat menunjukkan bahwa secara bersamaan $RNL \geq 3.1$ dan stadium lanjut berhubungan dengan PFS secara klinis maupun statistik.

KESIMPULAN: RNL pra pembedahan > 3.1 berhubungan dengan kejadian PFS < 12 bulan pada pasien kanker ovarium epitelial di RSUP Dr. Sardjito. Pasien kanker ovarium epitelial dengan $RNL > 3.1$ dan stadium lanjut mengalami PFS < 12 bulan.

KATA KUNCI: Kanker ovarium epitelial, Rasio Neutrofil-Limfosit, progression free survival.

ABSTRACT

BACKGROUND: Ovarian cancer is one of the most common and deadly malignancies in women. The incidence of ovarian cancer in Indonesia reaches 15 in 100,000 and ranks the fifth leading cause of cancer death in women in Indonesia. More than 75% of ovarian cancer patients are diagnosed at an advanced stage. After undergoing primary treatment, 50% of patients will relapse within 1 year, and the 5-year survival rate is less than 50%. In general, the prognosis of epithelial ovarian cancer is independently influenced by the stage at initial diagnosis, histological type and grade, and the maximum residual diameter after cytoreductive surgery. The neutrophil-lymphocyte ratio (NLR), a predictor of inflammatory status, has been shown to be an effective prognostic marker for most malignancies, including ovarian malignancy. High RNL values reflect a trend towards increased pro-tumor inflammation and decreased anti-tumor immune capacity.

PURPOSE: To determine the correlation between pre-surgery neutrophils-lymphocytes ratio (NLR) with the prognosis of epithelial ovarian cancer in ovarian cancer patients at RSUP Dr. Sardjito, Yogyakarta.

METHODS: This study was a prognostic test with a retrospective cohort design involving 106 ovarian cancer patients at RSUP Dr.Sardjito who met the inclusion criteria. The data source comes from secondary data taken from the Medical Record Installation in the period January 2016 to March 2019.

RESULTS: Among 106 subjects, the mean age of the patients was 48.58 with 69.8% of the subjects being multiparous. A total of 50.94% of subjects were found in advanced stages (III and IV) and 71.7% were high grade tumors. The relative risk of subjects with $NLR \geq 3.1$ who experienced Progression Free Survival (PFS) ≤ 12 months was 9.896 (95% CI = 1.646-101.413; $p = 0.003$). Analysis of the correlation between age, body mass index, parity, preoperative CA-125 levels, tumor stage and grade with NLR showed that statistically and clinically only tumor stage had a significant relationship with NLR (RR = 1.618, 95% CI = 1.179-2.220, $p = 0.002$). Analysis of the correlation between age, body mass index, parity, preoperative CA-125 levels, tumor stage and grade with PFS showed that statistically and clinically only stage had a significant relationship with PFS (RR 3.370, 95% CI = 1.187-9.573, $p = 0.012$). The results of multivariate analysis showed that clinically and statistically only NLR and tumor stage were associated with PFS.

CONCLUSION: Preoperative $RNL > 3.1$ associated with the incidence of PFS < 12 months in epithelial ovarian cancer patients at Dr. Sardjito. Epithelial ovarian cancer patients with $RNL > 3.1$ and advanced stage experienced PFS < 12 months.

KEY WORDS: Epithelial ovarian cancer, Neutrophil-Lymphocyte Ratio, progression free survival