INTISARI

Latar Belakang: Kanker ovarium merupakan keganasan ginekologi dengan angka kematian tinggi. Inflamasi kronis berkontribusi terhadap perkembangan kanker ovarium. Penanda inflamasi kronis yang dapat digunakan yaitu *Neutrophil to Lymphocyte Ratio* (NLR). Parameter NLR sebagai penanda inflamasi yang mudah dan murah. Peran NLR pada kanker ovarium masih belum banyak diteliti.
Tujuan: Mengevaluasi peranan *Neutrophil to Lymphocyte Ratio* (NLR) praoperasi sebagai prognostik kematian pada pasien kanker ovarium dalam pemantauan 3 tahun pasca operasi.
Metode: Penelitian kohort retrospektif menggunakan data sekunder pasien terdiagnosis kanker ovarium epithelial berdasarkan histopatologi yang dioperasi pertama kali tahun 2019-2020 di RSUP Dr. Sardjito. Pemantauan dilakukan selama 3 tahun. Subjek dibagi kelompok nilai NLR ≥3,24 dan nilai NLR <3,24. Luaran *overall survival* dinyatakan *hazard ratio* dan dianalisis menggunakan kurva *Kaplan-Meier* dengan interval kepercayaan 95%. Nilai *p* <0,05 dianggap bermakna secara statistik.
Hasil: Didapatkan 93 subjek penelitian terdiri dari kelompok hidup 61 subjek dan meninggal 32 subjek. Kelompok meninggal terdiri dari proporsi usia ≤60 tahun (29,3%) dan usia >60 tahun (55,6%). Proporsi stadium I (8,8%), stadium II (25%), stadium III (50%), dan stadium IV (66,7%). Ukuran tumor T1 (10,8%), T2 (37,5%), dan T3 (55%). Keterlibatan limfonodi N0 (22%) dan N1 (55,9%). Metastasis jauh M0 (27,3%) dan M1 (68,8%). Tipe progresivitas tipe I (21,9%) dan tipe II (62,1%). Diferensiasi histopatologi terbanyak pada *high grade serous carcinoma* (62,1%). Kelompok meninggal dengan NLR ≥3,24 (40,6%) dan NLR <3,24 (16,7%). *Neutrophil to Lymphocyte Ratio* (NLR) praoperasi ≥3,24 memiliki HR 2,4 (IK95%: 1,01 – 6,2; p = 0,047) dibandingkan pasien kanker ovarium dengan NLR <3,24 selama pemantauan 3 tahun pasca operasi.
Simpulan: Pasien kanker ovarium dengan NLR praoperasi ≥3,24 memiliki prognosis kematian 2,4 kali lipat dalam 3 tahun pasca operasi, namun NLR bukan faktor independen karena dipengaruhi tipe progresivitas.

Kata kunci: *Neutrophil to Lymphocyte Ratio* (NLR), kanker ovarium, kematian.

ABSTRACT

Background: Ovarian cancer is a gynecological malignancy with a high mortality rate. Chronic inflammation contributes to the development of ovarian cancer. The Neutrophil to Lymphocyte Ratio (NLR) serves as a simple and cost-effective marker of inflammation. Research on the role of NLR in ovarian cancer remains limited.

Objective: To evaluate the role of preoperative NLR as a prognostic factor for mortality in ovarian cancer patients during a 3-year postoperative monitoring period.

Method: : A retrospective cohort study was conducted using secondary data from epithelial ovarian cancer patients based on histopathology who underwent their first surgery at Dr. Sardjito General Hospital (2019-2020). The subjects were divided into two groups: those with NLR ≥3.24 and those with NLR <3.24. The follow-up period was 3 years. Overall survival was analyzed using the Kaplan-Meier method, with hazard ratio (HR) calculated at a 95% confidence interval. A p-value <0.05 was considered statistically significant..

Results: The study included 93 patients, with 61 survivors and 32 deceased. Among the deceased, 29.3% were ⩽60 years old, while 55.6% were >60 years. Cancer staging distribution: stage I (8.8%), stage II (25%), stage III (50%), and stage IV (66.7%). Tumor characteristics: T1 (10.8%), T2 (37.5%), and T3 (55%). Lymph node involvement: N0 (22%) and N1 (55.9%). Distant metastasis: M0 (27.3%) and M1 (68.8%). The most common histopathological type was high-grade serous carcinoma (62.1%). Among the deceased, 40.6% had NLR ⩾3.24, while 16.7% had NLR <3.24. A preoperative NLR ⩾3.24 had a hazard ratio (HR) of 2.4 (95% CI: 1.01 – 6.2; p = 0.047) during the 3-year postoperative follow-up.

Conclusion: Ovarian cancer patients with preoperative NLR ≥3.24 have a 2.4-fold higher 3-year mortality prognosis after surgery, but NLR is not an independent prognostic factor due to tumor progression type.

Keywords: Neutrophil to Lymphocyte Ratio (NLR), ovarian cancer, mortality.