INTISARI

Latar Belakang: Kanker ovarium merupakan keganasan ginekologi dengan angka kematian yang tinggi. Inflamasi kronis memiliki kontribusi terhadap perkembangan kanker ovarium. Penanda inflamasi kronis yang dapat digunakan yaitu *Platelet to Lymphocyte Ratio* (PLR). Parameter PLR menjadi penanda inflamasi yang mudah dan murah. *Platelet to Lymphocyte Ratio* (PLR) pada kanker ovarium masih belum banyak diteliti.

Tujuan: Mengevaluasi peranan *Platelet to Lymphocyte Ratio* (PLR) 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 PLR ≥200 dan nilai PLR <200. 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 PLR ≥200 (41,8%) dan NLR <200 (15,4%). *Platelet to Lymphocyte Ratio* (NLR) praoperasi ≥200 memiliki HR 2,7 (IK95%: 1,1 – 6,9; p = 0,024) dibandingkan pasien kanker ovarium dengan PLR <200 selama pemantauan 3 tahun pasca operasi.

Simpulan: Pasien kanker ovarium dengan PLR praoperasi ≥200 memiliki prognosis kematian 2,7 kali lipat dalam 3 tahun pasca operasi tetapi PLR bukan faktor independen karena dipengaruhi tipe progresivitas.

Kata kunci: *Platelet to Lymphocyte Ratio* (PLR), 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 Platelet to Lymphocyte Ratio (PLR) serves as a simple and cost-effective marker of inflammation. Research on the role of PLR in ovarian cancer remains limited.
Objective: To evaluate the role of preoperative PLR as a prognostic factor for mortality in ovarian cancer patients over a 3-year postoperative monitoring period.
Methods: 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 patients were categorized into two groups based on PLR values: PLR ≥200 and PLR <200. 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 deceased patients, 29.3% were aged ≤60 years, while 55.6% were >60 years. Cancer staging distribution included stage I (8.8%), stage II (25%), stage III (50%), and stage IV (66.7%). Tumor characteristics included T1 (10.8%), T2 (37.5%), and T3 (55%). Lymph node involvement was N0 (22%) and N1 (55.9%), while distant metastasis was M0 (27.3%) and M1 (68.8%). High-grade serous carcinoma was the most common histopathological type (62.1%). Among deceased patients, 41.8% had PLR ≥200. A preoperative PLR ≥200 had a hazard ratio (HR) of 2.7 (95% CI: 1.1 – 6.9; p = 0.024) during the 3-year postoperative follow-up.
Conclusion: Ovarian cancer patients with preoperative PLR ≥200 have a 2.7-fold increased prognosis of mortality within 3 years after surgery, but PLR is not an independent prognostic factor due to tumor progression type.

Keywords: Platelet to Lymphocyte Ratio (PLR), ovarian cancer, mortality