

ABSTRACT

RELATIONSHIP OF NEUTROPHIL TO LYMPHOCYTE RATIO AND PLATELET TO LYMPHOCYTE RATIO PREOPERATIVELY TO THE INCIDENCE OF SURGICAL SITE INFECTION OF POSTOPERATIVE PERITONITIS PATIENTS AT DR. H. ABDUL MOELOEK HOSPITAL LAMPUNG PROVINCE IN 2020 – 2022

By

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Background: Surgical site infection (SSI) has a prevalence of 2.3% – 18.3% in Indonesia. SSI preoperative predictors are needed to reduce incidence, recurrence, and severity. Neutrophil to lymphocyte ratio, biomarker of systemic inflammation, and PLR which is involved in immunomodulatory and inflammatory processes can be used as a predictor of postoperative infection.

Objective: To investigate out the relationship between NLR and PLR preoperatively on SSI.

Method: The study used a descriptive method with cross sectional approach. The sampling technique was total sampling. Subject were peritonitis patient at RSUD Dr. H. Abdul Moeloek Lampung Province in 2020-2022, totaling 82 people. The data was obtained by medical record which was conducted in September 2022-January 2023 and processed using the mann whitney test.

Results: Research shows that NLR and PLR had a relationship with the incidence of SSI with *p value* 0.026 and 0.00.

Conclusion: *Neutrophil to lymphocyte ratio* and *platelet to lymphocyte ratio* preoperative had a relationship with the incidence of SSI with PLR showing a more significant relationship.

Keywords: Surgical site infection, neutrophil to lymphocyte ratio, peritonitis, platelet to lymphocyte ratio, preoperative.

ABSTRAK

**HUBUNGAN NEUTROPHIL TO LYMPHOCYTE RATIO DAN
PLATELET TO LYMPHOCYTE RATIO PRA OPERASI
TERHADAP KEJADIAN INFEKSI DAERAH OPERASI
PASIEN PERITONITIS PASCA PEMBEDAHAN DI
RSUD DR. H. ABDUL MOELOEK PROVINSI
LAMPUNG TAHUN 2020 – 2022**

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Latar Belakang: Infeksi daerah operasi memiliki prevalensi sebesar 2,3% - 18,3% di Indonesia. Prediktor pra operasi IDO diperlukan dengan harapan mengurangi kejadian, kekambuhan, dan tingkat keparahan. *Neutrophil to lymphocyte ratio*, biomarker inflamasi sistemik, dan PLR yang terlibat dalam proses imunomodulator dan inflamasi dapat digunakan sebagai prediktor infeksi pasca pembedahan.

Tujuan: Untuk mengetahui hubungan NLR dan PLR Pra Operasi terhadap IDO.

Metode: Penelitian ini menggunakan metode deskriptif dengan pendekatan *cross sectional*. Teknik pengambilan sampel adalah *total sampling*. Subjek penelitian adalah pasien peritonitis di RSUD Dr. H. Abdul Moeloek Provinsi Lampung pada tahun 2020 – 2022 yang berjumlah 82 orang. Data diperoleh dari rekam medis yang dilakukan pada bulan September 2022-Januari 2023 dan diproses dengan uji Mann whitney.

Hasil: Penelitian menunjukkan bahwa NLR dan PLR memiliki hubungan dengan kejadian IDO dengan nilai *p* masing-masing 0.026 dan 0.00.

Simpulan: *Neutrophil to lymphocyte ratio* dan *platelet to lymphocyte ratio* pra operasi memiliki hubungan dengan kejadian IDO dengan PLR menunjukkan hubungan yang lebih signifikan.

Kata Kunci: Infeksi daerah operasi, neutrophil to lymphocyte ratio, peritonitis, platelet to lymphocyte ratio, pra operasi.