

## INTISARI

### Latar Belakang:

Beberapa penelitian menunjukkan parameter klinikopatologis belum dapat mengevaluasi prognosis pasien kanker serviks secara akurat. Penemuan prediktor kekambuhan baru sangat dibutuhkan untuk stratifikasi risiko lebih akurat dan penentuan terapi, mengurangi kejadian berulang dan meningkatkan kelangsungan hidup. Rasio Trombosit Limfosit (RTL) merupakan indeks berdasarkan peran inflammasi pada perkembangan kanker serviks.

### Tujuan:

Penelitian ini bertujuan untuk mengevaluasi rasio trombosit limfosit pra tatalaksana sebagai faktor prognostik kekambuhan pada pasien kanker serviks.

### Metode:

Penelitian kohort retrospektif pada pasien kanker serviks yang memenuhi kriteria inklusi di RSUP Dr. Sardjito. Kriteria inklusi adalah pasien kanker serviks stadium IA-IIA, memiliki data limfosit dan trombosit pra tatalaksana dan tidak ditemukan sel ganas dalam evaluasi awal pasca tatalaksana pembedahan dan atau medis di rumah sakit. Subjek penelitian dibagi menjadi 2 kelompok yaitu kelompok RTL  $\geq 143,79$  dan kelompok RTL  $< 143,79$ . Data limfosit dan trombosit pra tatalaksana dicatat melalui rekam medis fisik dan *electronic medical record*. Data karakteristik disajikan secara deskriptif dengan rerata dan simpang baku jika terdistribusi normal dan median (minimum – maksimum) jika tidak terdistribusi normal. Uji beda dilakukan pada kedua kelompok. Luaran kekambuhan kanker serviks dinilai dalam 3 tahun setelah terapi. Analisis multivariat menggunakan *Cox regression analysis*. Analisis *disease-free survival* menggunakan metode Kaplan Meier. Batas kemaknaan menggunakan  $p < 0,05$ . Analisis data menggunakan *software* SPSS versi 25.

### Hasil:

Didapatkan 119 subjek penelitian, dengan rerata usia saat terdiagnosis  $49,43 \pm 9,96$  tahun, median indeks massa tubuh 23,81 (14,15 – 35,96) dan median jumlah kelahiran 2 (0 – 8). Uji beda didapatkan perbedaan bermakna pada variabel indeks massa tubuh. Hazard Ratio 2,689 (IK95% 1,441 – 6,017) untuk risiko kekambuhan pada kanker serviks dengan RTL pra tatalaksana  $\geq 143,79$ .

**Kesimpulan:** Rasio trombosit limfosit pra tatalaksana  $\geq 143,79$  merupakan faktor prognostik independen kekambuhan pada kanker serviks.

**Kata Kunci:** kanker serviks, rasio trombosit limfosit, kekambuhan.

## ABSTRACT

### **Background:**

Several studies have shown that clinicopathological parameters cannot accurately evaluate the prognosis of cervical cancer patients. The discovery of new recurrence predictors is urgently needed for more accurate risk stratification and therapy determination, reducing recurrent events and improving survival. Thrombocyte Lymphocyte Ratio (RTL) is an index based on the role of inflammation in cervical cancer progression.

### **Objective:**

This study aims to evaluate the pre-treatment thrombocyte lymphocyte ratio as a prognostic factor for recurrence in cervical cancer patients.

### **Method:**

Retrospective cohort study on cervical cancer patients who met the inclusion criteria at Dr. Sardjito Hospital. Inclusion criteria were stage IA-IIA cervical cancer patients, having pre-treatment lymphocyte and thrombocyte data and no malignant cells were found in the initial evaluation after surgical and or medical management at the hospital. The study subjects were divided into 2 groups: the  $RTL \geq 143.79$  group and the  $RTL < 143.79$  group. Pre-treatment lymphocyte and thrombocyte data were recorded through physical medical records and electronic medical records. Data characteristics were presented descriptively with mean and standard deviation if normally distributed and median (minimum - maximum) if not normally distributed. T-test was performed on both groups. Cervical cancer recurrence outcomes were assessed at 3 years after therapy. Multivariate analysis used Cox regression analysis. Disease-free survival analysis used the Kaplan Meier method. The limit of significance was  $p < 0.05$ . Data analysis used SPSS software version 25.

### **Results:**

There were 119 subjects, with a mean age at diagnosis of  $49.43 \pm 9.96$  years, a median indeks massa tubuh of 23.81 (14.15 - 35.96) and a median number of births of 2 (0 - 8). T-tests found significant differences in indeks massa tubuh variables. Hazard Ratio 2.689 (95% CI 1.441 - 6.017) for the risk of recurrence in cervical cancer with pre-treatment  $RTL \geq 143.79$ .

**Conclusion:** Pre-treatment thrombocyte lymphocyte ratio  $\geq 143.79$  is an independent prognostic factor of recurrence in cervical cancer.

**Keywords:** cervical cancer, thrombocyte to lymphocyte ratio, recurrence.