

# Squamous Cell Carcinoma cervix uteri berhubungan signifikan dengan faktor prognostik dan *Programmed Death-Ligand 1*

Ahmad Syarif<sup>1</sup>, Awal Prasetyo<sup>2</sup>, Vega Karlowee<sup>2</sup>

<sup>1</sup>Residen Departemen Patologi Anatomi, Fakultas Kedokteran Universitas Diponegoro, Rumah Sakit Umum Pusat Dr.Kariadi, Semarang, Indonesia

<sup>2</sup>Staff Pengajar Departemen Patologi Anatomi, Fakultas Kedokteran Universitas Diponegoro, Rumah Sakit Umum Pusat Dr.Kariadi, Semarang, Indonesia

## ABSTRAK

**Latar Belakang :** Kanker serviks uteri yang berhubungan dengan *Human Papilloma Virus* (HPV) menyebabkan peningkatan ekspresi PD-L1 yang dapat mempengaruhi prognosis. Faktor prognostik seperti klasifikasi TNM, usia, FIGO *staging*, dan *Quality of life* dianggap sebagai faktor prognostik yang paling signifikan pada pasien kanker serviks uteri.

**Tujuan :** Penelitian ini bertujuan untuk membuktikan hubungan antara tingkat ekspresi PD-L1 terhadap faktor prognostik (usia, FIGO *staging*, klasifikasi TNM, dan *Quality of life*) pada pasien kanker serviks uteri.

**Metode :** Penelitian observasional analitik dengan desain *cross sectional*. *Consecutive sampling* dilakukan pada pasien yang didiagnosis kanker serviks uteri di Laboratorium Patologi Anatomi RSUP Dr. Kariadi Semarang tahun 2021-2022. Ekspresi PD-L1 diukur dengan pemeriksaan imunohistokimia yang dikategorikan menjadi: 0 (<5%); 1 (5% -25%); 2 (26%-50%); 3 (51%-75%); dan 4 (76%-100%). Faktor prognostik berupa usia, FIGO *staging*, klasifikasi TNM, didapatkan dari rekam medis. *Quality of life* pasien didapatkan dengan menggunakan pengisian kuesioner form SF-36. Analisis data menggunakan uji *chi-square* dengan tingkat kemaknaan <0,05.

**Hasil :** Hasil uji korelasi univariat ini menunjukkan terdapat hubungan yang bermakna secara statistik antara ekspresi PD-L1 dengan variabel ukuran tumor ( $p = 0,050$ ), FIGO *staging* ( $p = 0,050$ ), dan kualitas hidup ( $p = <0,001$ ), sedangkan untuk variabel usia ( $p = 0,149$ ), keterlibatan kelenjar getah bening ( $p = 0,070$ ), dan metastasis ( $p = 0,355$ ) tidak terdapat hubungan yang bermakna terhadap ekspresi PD-L1.

**Kesimpulan :** Terdapat hubungan yang bermakna secara statistik antara ekspresi PD-L1 dengan variabel ukuran tumor, FIGO *staging*, dan kualitas hidup.

**Kata Kunci :** Kanker serviks, PD-L1, klasifikasi TNM, usia, FIGO *staging*, *Quality of life*.

# Squamous Cell Carcinoma cervix uteri has a significantly associated between the prognostic factors and Programmed Death-Ligand 1

Ahmad Syarif<sup>1</sup>, Awal Prasetyo<sup>2</sup>, Vega Karlowee<sup>2</sup>

<sup>1</sup>Resident of Anatomical Pathology Department, Faculty of Medicine, Diponegoro University, General Hospital Center of Dr.Kariadi, Semarang, Indonesia

<sup>2</sup>Lecturer of Anatomical Pathology Department, Faculty of Medicine, Diponegoro University, General Hospital Center of Dr.Kariadi, Semarang, Indonesia

## ABSTRACT

**Background:** Uterine cervical carcinoma associated with the *Human Papilloma Virus* (HPV) causes an increase in PD-L1 expression, affecting the prognosis. Prognostic factors such as TNM classification, age, FIGO staging, and Quality of life are considered the most significant prognostic factors in cervical uteri carcinoma patients.

**Objective:** This study aims to prove the relationship between PD-L1 expression level and prognostic factors (age, FIGO staging, TNM classification, and Quality of life) in cervical uteri carcinoma patients.

**Methods:** Analytic observational study with cross-sectional design. Consecutive sampling was carried out on patients diagnosed with cervical uteri carcinoma at the Anatomical Pathology Laboratory of RSUP Dr. Kariadi Semarang in 2021-2022. PD-L1 expression was measured by immunohistochemical examination which was categorized as 0 (<5%); 1 (5% -25%); 2 (26%-50%); 3 (51%-75%); and 4 (76%-100%). Prognostic factors such as age, FIGO staging, and TNM classification, were obtained from medical records. The patient's quality of life was obtained by filling out the questionnaire form SF-36. Data analysis used the chi-square test with a significance level <0.05.

**Results:** The results of this univariate correlation test showed that there was a statistically significant relationship between PD-L1 expression and the variable tumor size ( $p = 0.050$ ), FIGO staging ( $p = 0.050$ ), and quality of life ( $p = <0.001$ ), while for other variables age ( $p = 0.149$ ), lymph node involvement ( $p = 0.070$ ), and metastasis ( $p = 0.355$ ) did not have a significant relationship with PD-L1 expression.

**Conclusion:** There is a statistically significant relationship between PD-L1 expression and tumor size, FIGO staging, and quality of life variables.

**Keywords:** Cervical carcinoma, PD-L1, age, FIGO staging, TNM classification, Quality of life.