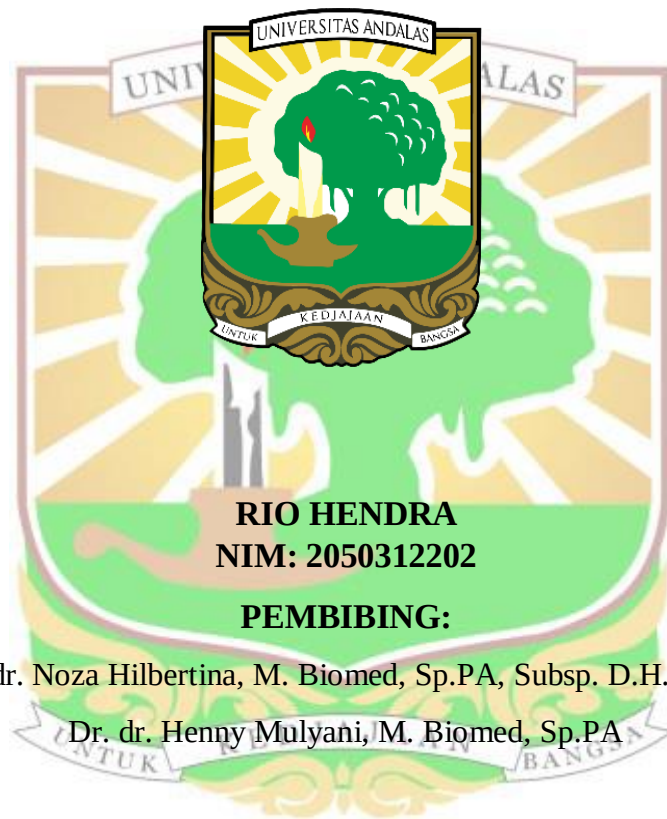


**HUBUNGAN EKSPRESI *PROGRAMMED DEATH-LIGAND 1* DENGAN
JENIS HISTOPATOLOGI DAN STADIUM MASAOKA-KOGA
PADA TUMOR EPITEL TIMUS**

TESIS



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FAKULTAS KEDOKTERAN UNIVERSITAS ANDALAS
PADANG
2025**

Hubungan Ekspresi *Programmed Death-Ligand 1* dengan Jenis Histopatologi dan Stadium Masaoka-Koga pada Tumor Epitel Timus

ABSTRAK

Rio Hendra

Tumor epitel timus merupakan keganasan yang paling umum pada mediastinum, namun dengan angka kejadian cukup langka. Tumor epitel timus menjadi masalah kesehatan di Indonesia karena datang dengan jenis histopatologi yang beragam, stadium klinis lanjut dan keberhasilan terapi yang belum memuaskan. Perkembangan imunoterapi telah mengubah pandangan pengobatan penyakit tumor epitel timus stadium lanjut. *Programmed Death-Ligand 1* (PD-L1) merupakan protein dalam sistem imunitas yang berperan sebagai ‘rem’ agar sel kanker tidak menghindari serangan dari sel T. Penelitian ini bertujuan untuk mengetahui hubungan imunoekspresi PD-L1 dengan jenis histopatologi dan stadium Masaoka-Koga tumor epitel timus. Penelitian ini merupakan penelitian *cross sectional*. Sampel penelitian adalah kasus tumor epitel timus dari Laboratorium Patologi Anatomi RSUP Dr. M. Djamil Padang periode Januari 2019 – Desember 2024 sebanyak 29 kasus. Sampel diperoleh secara *consecutive sampling* dari blok parafin yang berasal dari jaringan tumor. Dilakukan penilaian ulang pada slaid HE untuk menilai jenis histopatologi. Ekspresi PD-L1 dinilai melalui pulasan imunohistokimia. Jenis histopatologi tumor epitel timus dibagi menjadi timoma tipe A, timoma tipe AB, timoma tipe B1, timoma tipe B2, timoma tipe tipe B3 dan karsinoma timus. Stadium penyakit berdasarkan sistem Masaoka-Koga dibagi menjadi stadium awal dan stadium lanjut. Analisis bivariat dilakukan dengan uji *Chi-square* dengan hasil uji statistik dianggap bermakna jika nilai $p < 0,05$. Penelitian ini menunjukkan imunoekspresi PD-L1 positif rendah dan positif tinggi masing-masing 82,8% dan 10,3. Analisis statistik menunjukkan tidak terdapat hubungan antara ekspresi PD-L1 dengan jenis histopatologi ($p = 0,195$) dan tidak terdapat hubungan antara ekspresi PD-L1 dengan stadium Masaoka-Koga ($p = 0.800$). Penelitian ini menyimpulkan tidak terdapat hubungan antara ekspresi PD-L1 dengan jenis histopatologi dan stadium Masaoka-Koga tumor epitel timus.

Kata kunci: tumor epitel timus, jenis histopatologi, imunohistokimia, stadium Masaoka-Koga, ekspresi PD-L1.

The Correlation of Programmed Death-Ligand 1 Expression with Histopathological Type and Masaoka-Koga Stage in Thymic Epithelial Tumors

ABSTRACT

Thymic epithelial tumors are the most common malignancy in the mediastinum, but the incidence is quite rare. Thymic epithelial tumors are a health problem in Indonesia because most present with diverse histopathological types, advanced clinical stages and unsatisfactory therapeutic. The development of immunotherapy has changed of the view the treatment of advanced thymic epithelial tumor. Programmed Death-Ligand 1 (PD-L1) is a protein in the immune system that acts as a 'brake' so that cancer cells do not avoid attacks from T cells. The purpose of the study to determine the correlation of PD-L1 immunoexpression with histopathological type and Masaoka-Koga stage of thymic epithelial tumors. This study was a cross sectional study. Samples were cases of thymic epithelial tumors from the Anatomical Pathology Laboratory of Dr. M. Djamil Padang Hospital for the period January 2019 - December 2024 as many as 29 cases. Samples were obtained by consecutive sampling from formalin fixed paraffin embedded (FFPE) derived from tumor tissue. Reevaluation of haematoxylin-eosin slide was performed to assess the type of histopathology. PD-L1 expression was assessed by immunohistochemical staining. Histopathological types of thymic epithelial tumors were divided into type A thymoma, type AB thymoma, type B1 thymoma, type B2 thymoma, type B3 thymoma and thymic carcinoma. Tumor staging based on Masaoka-Koga system was divided into early stage and advanced stage. Bivariate analysis was performed using Chi-square test with statistical test results considered significant if the p value was < 0.05 . This study showed low positive and high positive PD-L1 immunoexpression of 82.8% and 10.3%. Analysis of statistics showed no correlation of PD-L1 expression with histopathology type ($p = 0.195$) and there is no correlation of PD-L1 expression with Masaoka-Koga stage ($p = 0.800$). This study concludes that there is no association between PD-L1 expression with histopathological type and Masaoka-Koga stage of thymic epithelial tumors.

Keywords: thymic epithelial tumor, histopathological type, immunohistochemistry, Masaoka-Koga stage, PD-L1 expression.

