# Hubungan Karakteristik Klinikopatologik dan Ekspresi Foxp3 pada Tumor Infiltrating Lymphocyte (TIL) dengan Stadium Klinis Melanoma Malignum = Association of Clinicopathological Characteristic and Foxp3 Expression in Tumor Infiltrating Lymphocyte (TIL) with Malignant Melanoma Clinical Stage

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Abstrak

Latar Belakang : Melanoma malignum (MM) merupakan tumor ganas yang berasal dari proliferasi sel melanosit dan dapat ditemukan pada kulit, mukosa dan okular. Angka mortalitas MM cukup tinggi, terutama pada stadium lanjut yang ditandai dengan metastasis. Metastasis MM dipengaruhi berbagai faktor risiko yang dapat berbeda pada MM kulit, mukosa dan okular, salah satunya yaitu proses imunologi tumor yang dapat dinilai dari Tumor Infiltrating Lymphocyte (TIL). Komponen TIL yang berperan dalam proses penghindaran sistem imun pada MM adalah sel T regulator dengan penanda yang paling spesifik sampai saat ini adalah Foxp3. Hubungan Foxp3 dengan stadium MM masih kontroversial dan sampai saat ini belum ada penelitian mengenai hubungan Foxp3 pada TIL dengan stadium MM di Indonesia. Tujuan: Penelitian ini bertujuan untuk mengetahui hubungan karakteristik klinikopatologik dan ekspresi Foxp3 pada TIL dengan stadium MM. Metode: Penelitian analitik pada sediaan MM di Departemen Patologi Anatomik FKUI/RSCM selama periode Januari 2010 hingga Desember 2021. Pengambilan sampel penelitian dilakukan secara total sampling dari kasus yang memenuhi kriteria inklusi sesuai perhitungan besar sampel untuk masing-masing kelompok. Pemeriksaan imunohistokimia menggunakan antibodi primer monoklonal Foxp3. Data imunoekspresi dianalisis untuk mengetahui hubungannya dengan stadium MM. Hasil: Didapatkan 54 kasus MM, 19 kasus diantaranya merupakan MM kulit, 29 kasus MM okular, dan 6 kasus MM mukosa. Mayoritas kasus (63%) merupakan stadium lanjut.
Tebal tumor dan mitosis berhubungan dengan stadium klinis MM kulit dan keseluruhan.
Jenis kelamin perempuan, tebal tumor >2 mm, mitosis >16/10 LPB, adanya invasi limfovaskular dan invasi perineural umumnya mempunyai ekspresi Foxp3 yang rendah.
Pada MM kulit dan MM keseluruhan, ekspresi Foxp3 yang rendah ditemukan pada stadium klinis lanjut meskipun tidak didapatkan hubungan yang signifikan.
Kesimpulan: Tebal tumor dan mitosis berhubungan dengan stadium klinis MM kulit dan keseluruhan. Karakteristik klinikopatologik tidak berhubungan signifikan dengan ekspresi Foxp3
.....Background: Malignant melanoma (MM) is a malignant tumor originating from proliferation of melanocyte cells and can be found in skin, mucosa and ocular. The mortality rate for malignant melanoma is quite high, especially at advanced stage characterized by metastases. Various risk factors can predispose MM into metastases, which can be different in cutaneous, mucosal and ocular MM, one of which is the immunological process of the tumor which can be assessed from Tumor Infiltrating Lymphocyte (TIL). TIL components that play a role in the process of avoiding the immune system in malignant melanoma are regulatory T cells, whose the most specific marker so far is Foxp3. The association of Foxp3 with clinical stage of malignant melanoma is still

controversial and until now there has been no research on the association of Foxp3 in TIL with clinical stage of MM in Indonesia.
Aims: This study aims to determine the association between clinicopathological characteristics and Foxp3 expression in TIL with MM clinical stage.
Methods: Analytic study on malignant melanoma diagnosed at Anatomical Pathology Department FKUI/RSCM during January 2010 until December 2021. Sampling was carried out by total sampling from cases that met the inclusion criteria according to the calculation of the sample size for each group. Immunohistochemical examination using Foxp3 monoclonal primary antibody. Immunoexpression data were analyzed to determine its relationship with clinical stage of malignant melanoma.
Result: There were 54 cases of MM: 19 cases were skin MM, 29 cases of ocular MM, and 6 cases of mucosal MM. Majority of cases (63%) were in advanced stages. Tumor thickness and mitosis associated with clinical stage of cutaneous and overall MM. Female gender, tumor thickness >2 mm, mitoses >16/10 HPF, presence of lymphovascular invasion and perineural invasion generally had low Foxp3 expression. In cutaneous MM and overall MM, low Foxp3 expression was found at advanced clinical stage although no significant association was found.
Conclusion: Tumor thickness and mitosis associated with clinical stage of cutaneous and overall MM. Clinicopathological characteristic was not statistically significant with Foxp3 expression. Low Foxp3 expression was associated with advanced clinical stage although no statistically significant association was found.