Today the widely spread and generally accepted is the classification of the melanoma staging according to the recommendations of the American Joint Committee of Cancer and Union International Contra le Cancer, which has being revised and updated in line with the latest knowledge since 1988 (4, 11). Thus, the newest revised edition is that from 2010. This classification is being supplemented with classifications according to the Breslow vertical melanoma thickness. Microstaging of malignant melanoma is determined by Breslow according to the vertical melanoma thickness in millimeters: up to 1 mm or less, from 1.0 to 2.0 mm, from 2.0 to 4.0 mm and from 4.0 mm and larger.

The results of this study showed that there was a statistically significant correlation of the vertical thickness of the tumor according to Breslow with the sentinel node positivity for metastasis. Higher value of Breslow indicates higher possibility for metastasis in the sentinel nodes.

According to the literature ulceration has a statistically significant value for the prognosis and staging of malignant melanoma (7, 8). Our finding was not in agreement with the results in the other studies comprising a larger number of subjects, which might be due to the small number of patients and to the fact that there were no patients in the early stage of the disease in relation to the overall analysis of our material.

Tumor infiltrating lymphocytes have the main role in the antitumor immune response of the host, by increasing the cytotoxicity of T lymphocytes and by inducing apoptosis of tumor cells.

T lymphocyte population is mainly consists of different CD4+ helper and/or CD8+ cytotoxic T lymphocyte (CTL) (22). Tumor infiltrating lymphocytes have tumor specific characteristics. CD8+ T lymphocytes recognize tumor antigens and tumor associated antigens presented by molecules of MHC class I. After the recognizing and activation, the cytotoxic T lymphocytes directly kill the tumor cells by releasing litic granules, which contain preforin and granines, into the target cells. Also, they transmit Fas ligands in tumor cells, which are mediators of signals of apoptosis. Cytotoxic T lymphocytes secrete cytokines which destroy or help destroying the target cells.

T helper lymphocytes are capable of recognizing tumor antigens and tumor associated antigens of MHC class II molecules. After their activation, CD4+ T helper cells release cytokines which participate in regulation of the immune response (22, 23).

Another group of tumor infiltrating lymphocytes is CD4+ and CD25+ lymphocytes, which have an important role in immunosuppression (22, 23).

Tumor infiltrating lymphocytes also produce soluble cytokines, like interferon –ã which is essential for the cell immune response (23, 24, 25, 26).

The results of our study indicate that the presence of more intense tumor lymphocytic infiltration in the primary melanoma lesion is related to the smaller possibility for metastasis in the regional lymph nodes.

The knowledge of the tumor biology and the role of the tumor infiltrating lymphocytes in the immune response are particularly important for introducing new modalities of immunotherapy in the therapy of malignant melanoma

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