

Melanoma is one of the tumors, characterized by considerable heterogeneity of expression of tumor-specific protein. Monitoring two or more markers can significantly increase the efficiency of detection. In our study, we concentrated to 5 marker: Melan-A/MART-1, gp 100, MAGE-3, MIA and Tyrosinase. Another potential tumor marker was telomerase. The most sensitive marker of progression proved to MAGE-3 (17 of 18 patients), followed by the positive marker gp100 (10 of 18 patients), MIA (9 of 18) and Tyrosinase (1 of 18). The Melan-A there was no statistically significant increase over the cutoff for all monitored patients with progression. Tyrosinase as a marker for circulating melanoma cells used in the past most frequently. Her role as a marker is highly debated and varies in different publications. For example The effectiveness of investigations Tyrosinase as the only marker of progression ranged from 6% to 59%. The reason may be technical error, a high percentage of false positives such as because of contamination or reduce expression Tyrosinase in advanced stages, which is associated with reducing the differentiation of tumor cells and decrease tumor melanization. Given that our work with progressive disease, most often found at the same time three positive markers, supports the detection of several marker as a very suitable and sensitive method.

In conclusion, the multimarker quantitative real-time RT-PCR is a sensitive method for detecting circulating tumor cells. It is a signal for early treatment of metastatic melanoma distribution patients. This method is an important and reliable prognostic factor. One can assume that the future can serve to screen high-risk patients and monitoring treatment success.