

Multiple myeloma is an aggressive hemato-oncological disease the diagnosis and treatment possibilities of which have been developing for the last 15 years. The diagnostic methods include flow cytometry which uses antigen detection to distinguish between pathological and physiological plasmocytes. One of the monitored markers is marker CD45 which could be, according to our monitoring, of a negative prognostic value. 71 patients in our group were divided according to the intensity of CD45 antigen expression and the group with a lower expression showed a statistically higher risk of relapse within 12 months 62% vs. 25 % ($p=0,0011$). We did not find any connection with the influences of induction therapy or cytogenetics which are otherwise considered the most important prognostic markers.

Multiple myeloma treatment involves a lot of combined protocols; and the repeated autologous transplantation is still considered to be the most efficient. We observed more positive results in planning the second autologous transplant early in patients who reached just partial remission after the 1st autologous transplant - significantly better TFS (treatment free survival) and overall survival (OS) were in the group of patients with early tandem transplantation: 18 months vs. 10 months ($p=0.04$) and the OS median was not reached in this group vs. 57 months ($p=0.005$). We also learned that if the second autologous transplant is performed in fast relapse/progression, it is more suitable to use systemic treatment to obtain cytoreduction first, and in slow relapse/disease progression, it is possible to transplant directly.