

# **RETROSPECTIVE ANALYSIS OF THE RESULTS OF AUTOLOGOUS BONE MARROW IN MULTIPLE MYELOMA: A SINGLE CENTER EXPERIENCE IN 137 PATIENTS.**

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According to the current treatment guidelines, autologous bone marrow (ASCT) is a standard first-line treatment for patients younger than 65 years. In our Institute ASCT it is a routine procedure since 2002. This study is a retrospective analysis of the results obtained on a lot of 137 patients who performed ASCT. The study was conducted in patients transplanted between 2003 - 2014 and were included only patients whom we had complete information.

**Results and Discussion:** Most patients were aged  $\leq 65$  years and only 3 patients were older than 65 years (until 70 years). The gender distribution was almost equal. Regarding therapy performed before transplantation, most of the patients received bortezomib-based therapy (VelDex, CyBorD, PAD, VTD) or VAD type (mostly patients in the early years). The median time from diagnosis until the harvesting hematopoietic stem cells (HSCs) was 7 months. The median time from harvest HSC until the transplant procedure was 5 months. The response to treatment before ASCT was, partial remission (PR) for 68 patients (50%),  $\geq$ VGPR for 34 patients (24.81%), CR + nCR for 29 patients (21.16%). At 100 days post ASCT improving response was achieved in 23 patients (16.8%). Thus, 10 patients (7.3%) switched from PR to VGPR, 9 patients (6.6%) from PR to CR and 4 patients (2.9%) from VGPR to CR. Overall survival (OS) was 77 months median. In terms of progression free survival (PFS) it had a median of 32 months. The results for OS and PFS are comparable to those reported in the literature, but events free survival (EFS) post ASCT disease was only 12 months - half of that reported in other studies. One explanation for this would be the long period between diagnosis and harvest CSH, respectively between harvesting and transplantation. Post-transplant, 23% of patients died with a median survival of 44 months.

**Conclusion:** ASCT is a standard procedure that can be performed in Romania with results comparable to those of other international centers.

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