**AUTOLOGOUS STEM CELL TRANSPLANTATION IN MULTIPLE MYELOMA PATIENTS OVER 60 YEARS OLD**

**ABSTRACT**

**Introduction:** Incidence of Multiple myeloma (MM) increases with age, two-thirds of the patients are older than 65 years. Induction treatment including new agents such as thalidomide, bortezomib and lenalidomide followed by conditioning regimen and upfront autologous stem cell transplantation (ASCT) has been accepted as the standard treatment approach for newly diagnosed fit MM patients. In this study, we aimed to search the outcome of MM patients over 60 years old who were consolidated with upfront ASCT at our center.

**Method:** The data of MM patients who were ≥ 60 years old during transplantation and treated at our center between January 2010 and May 2018, were retrospectively analyzed.

**Results:** 212 MM patients underwent ASCT between January 2010 and July 2018 at our center and 29.7% (63/212) of them were ≥ 60 years old. Median PFS was 15.5±2.6 months and median OS was 28.15±5 months. According to age groups, median PFS was 12±2.3 months in 60-64 age group, 18.4±6 months in the 65-69 age group, and 26±15 months in ≥70 age group. Median OS was 26.5±6.1 months in 60-64 age group, 39.66±8.9 months in 65-69 age group, and 18 months in ≥70 age group

**Conclusion:** our study indicated that 200 mg/m2 melphalan could safely be used in the physically fit patients at the ages of 60-69, and 140 mg/m2 would be the appropriate dose for the patients over 70. Chronological age alone should not be considered as an obstacle to ASCT, comprehensive geriatric assessment should be done in elderly patients.

**KEYWORDS:** Autologous stem cell transplantation, elderly, multiple myeloma, melphalan