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P900 SALVAGE AUTOLOGOUS STEM CELL TRANSPLANT IN RELAPSED MULTIPLE MYELOMA: A SINGLE CENTRE EXPERIENCE

Topic: 14. Myeloma and other monoclonal gammopathies - Clinical

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Background:

Multiple myeloma (MM) is an incurable disease and most patients (pts) will relapse during their lifetime. Although salvage therapy has improved with the advent of new drugs, salvage autologous stem cell (ASC) transplant (SAT) remains appropriate for pts relapsing after primary therapy that includes ASCT with initial remission duration >18 months (mo).

Aims: Evaluate the outcome of SAT in MM in the new drugs era and efficacy and toxicity associated to this treatment.

Methods:

Single centre retrospective analysis of MM pts submitted to SAT between 2007-2021. Tandem ASCT excluded. Engraftment defined according to EBMT criteria.

Results:

Fifty-three pts submitted to SAT, 58.5% male, median age of 60 yo (37-71), 27.8% with international staging system score III. Median number of prior lines of therapy before SAT was 2 (2-4), 51 (96.2%) including proteasome inhibitors (PI), 38 (71.7%) immunomodulators (IMiD) and 13 (24.5%) daratumumab. Twenty-five (50%) pts submitted to maintenance therapy with thalidomide (Thal) after ASCT and 15 (30.6%) with lenalidomide (Len) after SAT.

Pre-SAT response to therapy was complete remission (CR) in 9.6%, very-good partial response (VGPR) in 50% and PR in 40.4%. Most pts received conditioning with melphalan 200mg/m^2 for both transplants (1st: 100%, 2nd: 96.2%).

After SAT, median time to neutrophil engraftment was 12 days (6-21) and for platelet recovery was 13 days (3-26). Grade 3 oral and gastrointestinal mucositis observed in 14% and 6%, respectively, and febrile neutropenia in 91% of pts. SAT response evaluation showed CR in 28.3%, VGPR in 32.1% and PR in 37.7%. One patient showed progressive disease. No treatment related mortality (TRM) at 100 days post-SAT.

Median PFS after 1st ASCT was 32 mo. Median time between 1st and 2nd ASCT was 46 mo (22-140). Median PFS and OS after SAT was 28 and 78 mo, respectively. Comparison between PFS post-ASCT and post-SAT was not significant (P=0.09).

ISS stage with no impact on PFS (HR 1.99; p=0.263) and OS (HR 2.03; p=0.398), after SAT. No statistically significant difference in post-SAT PFS (HR 1.23 p=0.592) and OS (HR 1.84, p=0.312) between patients submitted to transplant before and after 2016, despite more intensive therapeutic protocols (100% triplets and 24.5% anti-CD38-based regimens in former period compared with duplets in the first). PFS of pts who reached CR post-SAT was significantly higher compared to pts in VGPR/PR (NR vs 22 mo, HR 2.97, p=0.044). However, CR post-SAT with no impact on OS (NR vs 118 mo, HR 1.27 p=0.71). Maintenance therapy with (Thal) post-ASCT with no impact on PFS

(33 vs 32 mo, HR 1.24, p=0.47). Similarly, the impact of post-SAT maintenance with Len on PFS (51 vs 28 mo, HR 1.35, p=0.49) and OS (NR vs 73 mo, HR 4.40, p=0.157) was not significant.

Pts with remission time duration after 1st ASCT ≥36 mo had median PFS and OS after SAT significantly longer (51 vs 22 mo, HR 2.41, p=0.024, and NR vs 71 mo, HR 6.24, p=0.015, respectively), compared to pts with post-ASCT remissions <36 mo.

Univariate analysis failed to show other clinical and analytical variables with impact on PFS and OS.

Summary/Conclusion: In our cohort, median PFS and OS after SAT was 78 mo and 28 mo, respectively. Pts with remissions after 1st ASCT ≥36 mo showed significantly longer PFS and OS. PFS was significantly improved in pts reaching CR after SAT. Post-SAT Len maintenance improved PFS and OS, however with no statistical significance. Severe toxicities were rare and never resulted in TRM. Overall, our centre experience shows that SAT is an effective and safe treatment in MM in the new drugs era.