Outcome of Treatment of Multiple Myeloma patients with Bortezomib-based regimens compared to Vincristine,Doxorubicin and Dexamethasone (VAD) regimen

Thesis
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Abstract

Objective: Compare outcome of treatment of Bortezomib-based regimens versus VAD regimen (Vincristine, Doxorubicin, Dexamethazone) in multiple myeloma patients treated in The Medical Oncology departments of both National Cancer Institute (NCI) and Nasser Institute from January 2011 till December 2015).

Methods: This study was performed retrospectively on 89 MM patients treated at The Medical Oncology departments of both National Cancer Institute (NCI) and Nasser Institute from January 2011 till December 2015. All patients were evaluated for different responses with different lines of treatment (VAD versus Bortezomib based regimens) which correlated with progression free survival (PFS) and overall survival (OS). Also, the different prognostic factors: age, sex, clinical presentation, albumin, LDH, creatinine, B2 microglobulin, ISS, Durie Salmon Staging and ASCT which correlated with different lines of treatment, PFS and OS.

Results: The age of patients ranged between 32 years to 76 years and the mean age was 51.1+/-7.4 years. It included 65.2% males and 34.8% females with male to female ratio 1.87:1. Bony pains were the most common clinical manifestation of patients in our study (44.9%) followed by bony masses (22.5%), fractures (16.9%), pallor (7.9%), neurological symptoms (5.6%) and finally oliguria (2.2%). Bortezomib based regimens have better overall response rate (ORR) (≥PR)(p value 0.031), progression free survival PFS(p value 0.004) and disease free survival DFS(p value 0.013) as 1st line treatment compared to VAD regimen. Also in previously treated patients bortezomib based regimens showed better progression free survival PFS (p value 0.039) compared to VAD regimen. There was significant relation between age (p value 0.001&<0.001) and ASCT (p value 0.001&0.034) with PFS and OS respectively, while other factors was not significant including (sex, clinical presentation, B2 microglobulin, creatinine, LDH, albumin, ISS, Durie Salmon Staging).

Conclusion: Bortezomib based regimens has significant better overall response treatment (≥PR), progression free survival (PFS) and disease free survival (DFS) in 1st line treatment compared to VAD regimen. Also in previously treated patients bortezomib based regimens showed better progression free survival (PFS) than VAD regimen.ASCT is statically significant prognostic factor affecting PFS and OS.

Keywords: Multiple Myeloma, Bortezomib based regimens, VAD regimen