Risen from ashes- A prospective observational study of poor prognostic multiple myeloma patients with paraplegia/paraparesis

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Aim/Background: To assess neurological improvement & tumour response in poor prognostic multiple myeloma patients presenting with paraplegia/paraparesis

Methods: We prospectively observed transplant ineligible myeloma patients treated from 2012-14 presenting with paraplegia/paraparesis (grade 0-2), ISS stage 2 or 3, LDH ≥1.5 times ULN. They received local RT to spine, 8 Gy/single fraction & Bortezomib/lenalidomide/Dexamethasone (BLD) therapy, maintenance with Lenalidomide 10 mg till progression & bisphosphonates for 2 years. The neurological parameters on presentation & disease characteristics were recorded. All the patients were reassessed weekly for neurological response and at 6 months for disease status. If patient achieved Very Good Partial Response or Complete Response were maintained on Lenalidomide. The time to any neurological response, first symptom to respond, time to motor improvement to maximum, response to pain based on analgesic use, disease progression, deaths & total follow up period were noted. The duration of symptoms & time to response/best motor grade were analyzed with Mann Whitney & Cox test.

Results: When duration of symptoms were <30 days on presentation, the mean time to any response was 2.30 weeks, time to best motor grade was 4.17 weeks, compared to 5.14 and 7.14 weeks respectively, when the duration of symptoms was > 30 days & was statistically significant (p = 0.01 and 0.019). Median time to best motor response was 4.87 weeks with 63.3% of patients achieved grade 5 power. 86.6% achieved excellent response to BLD regimen with 23.3% CR & 63.3% VGPR.

Conclusions: Early initiation of local RT & BLD therapy provided best results in this subset of patients. Single 8 Gy RT gives excellent neurological response & pain relief. In myeloma, fractionated RT may not be necessary as the bone pathology is different compared to metastatic bone disease. 96.6% of the patients got total pain relief. BLD regimen produces high rates of VGPR and CR improving DFS/OS. 93.3% of patients who presented with paraplegia or just flicker of movements improved dramatically to the extent that they went back to their normal life. We conclude that even bedridden myeloma patients should always be treated with a radical intent.

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