P076 Hemi-body radiation as an alternative to radionuclide therapy in prostate cancer with disseminated bone metastasis

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Introduction & Objectives: Prostate cancer is the 2nd most common cancer in males, worldwide. Despite treatment many patients develop disseminated bone metastasis and even a few patients do present upfront. Radiation is an integral part of treatment for pain control and to prevent further bone related events. Ideally painful bone metastasis as well as weight bearing bones should be irradiated. Radionuclide therapy is the ideal treatment for disseminated bone disease, however the availability is limited and or not affordable for many patients. Present study was made to find out efficacy and toxicity of hemi-body radiation therapy in prostate cancer patients with disseminated bone metastasis.

Materials & Methods: From Jan 2021 to Dec 2021 (12 months) all prostate cancer patients with disseminated bone metastasis were selected for palliative hemi-body radiation therapy. Hemi-body radiation consists of 6 and 8 Gy dose, delivered to upper hemi-body and lower hemi-body respectively as single fractions, 1 week apart. Pain relief (NRG-11 scale) and biochemical response (PSA level) were recorded at 6 weeks post radiation. Baseline evaluations for all patients were done at initial presentation. Complete blood count was ordered before and after radiation to access hematological toxicity.

Results: 15 patients were treated with hemi-body radiation. At the end of 6 weeks all 15 patients had variable pain relief. The average decline was 3 points on Numeric Rating Scale-11. Average NRS rating was 7 before radiation treatment which declined to 4 after radiation. Mean PSA decline was 47%. 13 patients had grade I, and 2 patients had grade II hematological toxicity. All patients recovered without any complication.

Conclusions: Hemi-body radiation costing 235 USD is a much cheaper alternative to radionuclide therapy and offers good pain relief with acceptable toxicity.