

58

Painful osteolytic lesions by multiple myeloma: Effectiveness and timing of radiotherapy in a multimodal approach

S. Chiesa^{1*}, E. Rossi², S. Manfrida¹, B. De Bari³, V. Frascino¹, G. Mantini¹, G.R. D'Agostino¹, G. Chiloiri¹, V. De Stefano², M. Balducci¹. ¹Radiotherapy – Department of Radiology, Università Cattolica del Sacro Cuore, Rome, Italy, ²Haematology – Department of Internal Medicine, Università Cattolica del Sacro Cuore, Rome, Italy, ³Radiotherapy – Centre Hospitalier Lyon Sud, Lyon, France

Background: Multiple Myeloma is one of the main causes of bone involvement leading to risk of pathologic fractures and severe pain with negative impact on quality of life. This analysis evaluated results in terms of pain relief, recalcification and local control in Multiple Myeloma patients treated by radiotherapy.

Materials and Methods: Patients presenting osteolytic lesion by symptomatic Multiple Myeloma were treated in our centre. Pain was rated using a verbal numerical rating scale (NRS) to assess its reduction from baseline to 2 months after radiation (according to International consensus on palliative radiotherapy criteria), while recalcification was estimated at 6 months after radiotherapy by radiological imaging.

Results: Between 1997 and 2007, we observed 42 patients (29 M, 13 F). Median age was 66.5 years (range 22–85 years). Irradiated sites were: spinal cord (69%), pelvic bone (10%), upper and lower extremities (9%), skull (5%) and ribs (7%). Radiotherapy was performed with a median total dose of 38 Gy (range 16–60 Gy) and a median fraction of 200 cGy/die (range 180–400). Baseline pain was referred by 36/42 (86%) patients: severe ($8 \leq \text{NRS} \leq 10$) in 4/36 (11%), moderate ($5 \leq \text{NRS} \leq 7$) in 22 (61%), mild in 10 (28%). All patients with severe pain experienced a resolution, none referred an increase of pain, 17/36 patients (47%) obtained a drug reduction/suspension. Among 32/42 (76%) patients evaluable for recalcification, 13 (41%) achieved a radiological response. With a median follow-up of 42 months (range 21–210 months) actuarial 5-years local control was 75%.

Conclusion: Our data confirm the role of radiotherapy on pain relief, with a possible reduction of drug intake, and the effectiveness on recalcification supporting the early use of radiotherapy in a multidisciplinary approach to Multiple Myeloma.