

### Splenic palliative radiotherapy: Institutional experience, 7 cases report

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**Introduction.** Splenic radiotherapy, applied at low doses in patients with symptomatic secondary organomegaly to myelo or lymphoproliferative syndromes, is classically widely used treatment.

**Objectives.** To analyze the effectiveness of an easily applicable and reproducible technique based on the degree of palliation of the clinical, and the toxicity profile developed.

**Methods.** From 09/2007 to 12/2012, 7 consecutive patients were referred for abdominal palliative treatment. The age of all of them exceeded the fifth decade of life. They were diagnosed with idiopathic myelofibrosis (1), essential thrombocythaemia (2), non-Hodgkin mantle cell lymphoma (1), polycythaemia vera (2), and acute myeloid leukaemia (1). None of them were candidates for splenectomy. It was applied as exclusive treatment in two patients, while the rest received further systemic treatment. Three of the patients presented compressive symptoms such as dyspnea (1) or pseudo-occlusive symptoms (2) before beginning radiotherapy. The prescribed dose was up to 2 Gy in 0.25 Gy fractions (two fractions per week). The plan was carried out by two opposing fields-AP and PA-except for one single case in which three fields were used-one AP and two obliques. The sizes of said fields ranged from 39 × 30 to 30 × 18 cm.

**Results.** After performing a variable follow-up with a range between 2 and 18 months, five of the patients achieved significant clinical improvement, leading to a reduction in dyspnea (1), reduction in abdominal circumference by ultrasound (2), and for two of them it resulted in decisive therapy for the reintroduction of an oral diet due to the decompression of adjacent organs (duodenum). Five patients showed depletion in one or more cell series: 4 thrombocytopenia, 2 anemia, 3 neutropenia.

**Conclusion.** Splenic radiotherapy, fractioned at low-dose, for hematological disorders that present secondary symptomatic splenomegaly, is an effective, safe and easy technique, which contributes to the patient's wellbeing and comfort.

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### Use of palliative radiotherapy in brain and bone metastases

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**Introduction.** About 50% of all cancer patients develop metastases. Radiation therapy has proven effective in bone and brain metastases.

**Objective.** To analyze the variability of RT utilization rates in clinical practice in our region, and to estimate the irradiation rate.

**Methods.** Data were collected from all patients undergoing radiotherapy for bone and brain metastases during 2007 in the 12 public hospitals in Andalusia. Calculation of the rate of radiotherapy use was based on the cancer incidence and the number of radiotherapy treatments for bone and brain metastases and all cancer sites as well as the review of the literature.

**Results.** In 2007, 9319 patients undergoing RT for cancer at any site, of which 1242 (79%) received radiotherapy for bone metastases ( $n = 744$ ) or brain metastases ( $n = 498$ ). Lung, breast, prostate and digestive system were the most frequent primary tumours. No significant difference between bone metastases and brain metastases groups were observed in: characteristics of patients, mean distance from hospital or time from consultation to radiotherapy treatment. However, radiotherapy schedules differed among hospitals and between patient groups: 10 × 300 cGy, 5 × 400 cGy and 1 × 800cGy were applied in 32, 27 and 25%, respectively, of bone metastases patients, whereas 10 × 300cGy was used in 49% of brain metastases patients. It was estimated that 1576 patients should have been treated with RT for B and Br M. Thus, 1242 treated patients in our study represented 79% of these 1576 estimated patients

**Conclusions.** Differences in radiotherapy schedules among hospitals may reflect variability in clinical practice among the medical teams. Palliative RT use in BM and BrM is high and close to the expected rate.

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