

## Journal Watch

### Dexamethasone for the prophylaxis of radiation-bone induced pain flare after palliative radiotherapy for bone metastases-a pilot study

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**Abstract:** **PURPOSE:** To investigate the efficacy of dexamethasone as a prophylactic adjuvant analgesic to decrease pain flare and to assess its safety and tolerance of dexamethasone. **MATERIALS AND METHODS:** Patients treated with a single 8 Gy for bone metastases took 8 mg dexamethasone before the radiation treatment. The Brief Pain Inventory was administered at baseline and then daily for 10 days after radiation. Pain flare was defined as a two-point increase in the worst pain or a 25% increase in the analgesic intake when compared with the baseline. **RESULTS:** Thirty-three patients (23 males, 10 females) had complete follow-up data. Their median age was 73 years old. Ten patients had progressive worsening pain during the entire 10-day follow-up. A total of eight patients (24%; 95% CI, 10-39%) experienced pain flare during the 10-day follow-up. Two patients had a 1-day pain flare on day 3. Three patients had a 1-day pain flare on day 7. Three other patients had a prolonged pain flare: one had a 3-day pain flare on days 2-4, one had a 3-day pain flare on days 4-6, and the other, a 6-day pain flare on days 3-8. The half-life of dexamethasone is 36-54 h. Only one patient (3%) experienced pain flare in the first 2 days of follow-up with the action of dexamethasone. Dexamethasone was well tolerated. **CONCLUSION:** Dexamethasone might be effective in the prophylaxis of radiation-induced pain flare after palliative radiotherapy for bone metastases. Randomized trials are required to confirm the finding.

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#### Comments

##### Strengths/uniqueness:

- 1- Identified as the first study examining the use of prophylactic dexamethasone in the treatment of bone pain flare related to palliative radiotherapy.
- 2- Use of a validated assessment total (BPI).

##### Weaknesses:

1-Although defined, distinction between progressive pain and pain flare is not very clear as it applies to the analysis.

2-A brief description of the brief pain inventory would have been helpful to better understand the subtopics and numerical scaring.

3-The authors identify the following limitations: lack of a comparison group, open label study design, small sample size.

Relevance to Palliative Care: This paper refers to a number of studies that report the incidence of bone pain flare post palliative radiotherapy. The numbers are not insignificant. Dexamethasone is often used as an adjuvant for metastatic bone pain for those not already on Dexamethasone for bone pain, it is useful to know of its potential value of being started prophylactically to prevent a pain flare associated with palliative radiotherapy.

As the author's suggest, based on the delay or length of a pain flare, experienced by some patients in this study, further well designed studies are required to identify the optimal regimen for dexamethasone prophylaxis. i.e. need for possible longer duration of therapy with dexamethasone at the time of a post radiotherapy.