

1- Pain Assessment after Short Course versus Long Course Palliative Radiation of Painful Bony Metastasis

Khaled Abdelkarim Mohamed; Dalia Abd El-Ghany El-Khodary; Ahmed Mostafa Mohamed; Abdelfattah Rashad Abdelfattah Elmasry

Department of Clinical Oncology and Nuclear Medicine, Faculty of Medicine, Ain Shams University

***Corresponding author:** Abdelfattah Rashad Abdelfattah Elmasry, **Mobile:** 01021415712, **Email:**

abdefattah.elmasry@gmail.com.

ABSTRACT

Background: the most common cause of pain in cancer patients is bone metastases. **Objective:** to evaluate the different fractionation schedules. **Patients and Methods:** this is a prospective cross sectional study conducted at Ain-Shams University Hospitals and Nasser Institute Cancer Centre, to assess the equivalence of two fractionation regimens (20 Gy over 5 fractions versus 30 Gy over 10 fractions) as regard pain relief in painful bony metastases. Over 6 months fifty patients were assigned to either fraction arms using consecutive sampling. **Results:** both fractionation regimens were effective at palliating pain from bone metastases. Pain score was consistently going down from week 0 to week 12, although maximum benefit was reached earlier in the shorter arm (at week 8), both comparison groups leveled a favourable response at week 12. At 3 months, the observed overall response rate was 88% versus 84% and complete response rate was achieved in 44% versus 36% in both short- and long fractionation course respectively, with no statistical difference was found in terms of pain relief. **Conclusion:** lower dose of radiotherapy may provide equivalent outcomes to higher ones in palliating bone pain. So, the surrounding normal tissue role in pain process caused by bone metastases as well as the effect of radiation in this environment has to be furtherly investigated, which may lead to pain control augmentation.

Keywords: Pain Assessment; Palliative Radiation; Painful Bony Metastasis