

ONJ UPDATE 2024

Torino, 24 febbraio 2024

Abstract Submission FORM

TIME TO MRONJ ONSET AND SURVIVAL OF CANCER AND MYELOMA PATIENTS WITH MRONJ. A REGIONAL EXPERIENCE 2005-2023

SECTION: 1A

AUTHORS (max 8): Contrassegnare SPEAKER con “*”

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Background. Median survival of metastatic cancer and myeloma patients after diagnosis of bone lesions is largely variable, with large range, or 25%-75% Confidence Intervals (CI). In latest twenty years, innovative medical therapy obtained prolongation of expected survival of many subgroups of cancer patients with bone metastases, as well of myeloma patients, all receiving (together with backbone medical treatment) also antiresorptive treatment (Bone Modifying Agents, BMAs), including bisphosphonates and denosumab. Literature data about survival of patients developing Medication-Related Osteonecrosis of Jaws (MRONJ) are scanty¹.

Patients and methods. We reviewed survival data after start of BMA treatment of MRONJ patients registered at hospitals of Piedmont and Aosta Valley, followed by staff of a regional cancer network (Rete Oncologica di Piemonte e Valle d’Aosta) in years 2005-2023. Inclusion criteria: metastatic cancer patients or myeloma patients, developing MRONJ after High-Dose BMAs (HD-BMAs) and followed at network centers (with known latest visit or death date). Exclusion criteria: patients with other diseases (e.g., osteoporosis and non-malignant diseases); treatment with Low-Dose BMAs (LD-BMAs); lost to follow-up or unknown death date.

A ClinicoPath system was adopted to calculate survival and draw Kaplan-Meier survival curves.

Results. We analyzed survival data of 827 patients. Main characteristics: 294 males, 533 females; median age: 69 years (95% C.I. 61-76); 681 dead, 146 alive at latest control. Underlying disease: metastatic cancer (MC group) in 655 (396 breast cancer, 152 prostate cancer, 21 renal cancer, 49 lung cancer, 37 other cancers); multiple myeloma (MM group) in 172. First (or only) BMA administered was zoledronic acid in 76% of patients, denosumab (120 mg) in 12%, pamidronate in 10%, other drugs in 2%.

Median survival after the start of antiresorptive treatment was 82 months (95% CI 73-89) for breast cancer patients, 53 months (95% CI 47-72) for prostate cancer patients, 77 months (95% CI 21-114) for renal cancer patients, 90 months (95% CI 80-112) for MM patients, and 34 months (95% CI 28-50) for lung cancer patients. Three- and five-year survival rates were respectively 85% and 34% (breast), 70% and 25% (prostate), 51% and 20% (renal), 88% and 39% (myeloma).

Time to MRONJ onset (median) was 36 months for breast cancer patients (95% CI 32-39); 26 months for prostate cancer patients (95% CI 23-33); 10 months for renal cancer patients (95% CI 8-47); 34 months (95% CI 25-41) for MM patients

Median survival after MRONJ diagnosis was: 33 months (95% CI 28-36) for breast cancer patients, 21 months (95% CI 16-29) for prostate cancer patients, 29 months (95% CI 13-109) for renal cancer patients, 38 months (95% CI 29-56) for MM patients, and 13 months (95% CI 10-22) for lung cancer patients.

Conclusions. Patients with bone metastatic cancer and patients with MM developing MRONJ show a survival not necessarily short (months), with large proportion of patients surviving at 3 and 5 years after start of BMA treatment. Median time to onset is about 2-3 years, but it is shorter in renal cancer patients (receiving also antiangiogenic drugs). Prolonged survival after MRONJ diagnosis permits surgical treatment of MRONJ in most patients.

REFERENCES:

1. Fusco et al. Expected survival of cancer and myeloma patients undergoing bisphosphonates or denosumab. Potential impact on diagnosis and management of Osteonecrosis of Jaws (ONJ) Qeios 2021 at <https://www.qeios.com/read/MQ2IYG>

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