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Abstract Submission FORM

MEDICATION-RELATED OSTEONECROSIS OF JAWS (MRONJ) IN METASTATIC COLORECTAL CANCER: IS IT RARE? A REGIONAL EXPERIENCE WITH 10 CASES

SECTION: *1B. Clinical aspects / clinical experience*

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Background. Medication-Related Osteonecrosis of the Jaw (MRONJ) has been reported in patients treated with bisphosphonates since 2003, and was later observed not only after treatment with Bone Modifying Agents (BMAs), including bisphosphonates and denosumab, but also after antiangiogenic agents (AAs) alone, such as bevacizumab, aflibercept, sunitinib, etc (without BMA therapy)[1-3]. MRONJ was defined by AAOMS (American Association of Oral Maxillofacial Surgeons) as the presence of exposed, necrotic bone in the maxillofacial region (or oral fistula, since 2014) that has persisted for more than eight weeks in patients with current or previous treatment with BMAs and/or AAs, and no history of head and neck radiation to the jaws; however, the occurrence of cases without bone exposure questioned that definition[1].
Patients with Metastatic Colorectal Cancer (mCRC) usually receive treatment with chemotherapy, often together with biological agents (including AAs). Bone involvement in mCRC patients is often associated with higher disease burden, worse prognosis, impaired quality of life, and significant health-related cost[2]. Bone metastases were relatively rare in the "fluorouracil era" (till the 1980s) and slightly increased in frequency after introduction of other chemotherapy drugs and of biological agents (e.g. drugs with anti-VEGF activity, and other agents) possibly reflecting the improvement in overall survival[2].
MRONJ has been reported:
a) in mCRC patients with bone metastases receiving BMAs as supportive care therapy (with/without administration of AAs within their systemic treatment);
b) in mCRC patients without bone metastases, receiving anti-VEGF without BMAs.
Patients and methods. To investigate frequency and characteristics of MRONJ in mCRC patients, we reviewed all MRONJ cases reported in 2006-2023 years in oncology and oral care centres of Piedmont and Valle d'Aosta.
Results. We registered 10 cases of MRONJ among 892 cases of MRONJ in cancer and myeloma patients (0.1% of the total number of cases). Characteristics: 8 M, 2 F; median age 65 years (range 40-78). Status at December 2023: 2 alive, 8 dead.
MRONJ-related treatment:
a) in 6 patients: BMAs (4 zoledronic acid, 2 denosumab) with/without AAs (bevacizumab / aflibercept);
b) in 4 patients: AAs alone (3 bevacizumab, 1 aflibercept).
Median survival from the start of treatment (BMA and/or AA) was 33 months (with a large range: 6-170 months).
Median survival after MRONJ diagnosis was 11 months (range 3-120).
Conclusions. MRONJ in mCRC patients is not frequent, but the chance of MRONJ has to be kept in mind by oncologists and dental professionals in patients receiving treatment for mCRC. MRONJ occurrence in mCRC patients appears low and MRONJ seems to occur in subjects with longer survival than media; however, analysis of other data (including large patient population not developing MRONJ – as control) is needed.

REFERENCES:

1. *Bedogni et al. Qeios 2023 at www.qeios.com/read/PBUJ6Z*
2. *Dell'Acquila et al. ESMO Open 2022 at https://doi-org.bvsp.idm.oclc.org/10.1016/j.esmoop.2022.100606*
3. *Erovigni et al. Dentistry Journal 2016 at https://doi-org.bvsp.idm.oclc.org/10.3390/dj4040039*

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