Impact of Osteonecrosis of Jaw (ONJ) on ten year experience of a multidisciplinary osteoncology team.

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Funding: The author(s) received no specific funding for this work.

Potential competing interests: The author(s) declared that no potential competing interests exist.

Abstract

The Osteonecrosis of the Jaw (ONJ) is a bone disease only recently recognized (since 2003) and reported in association with use of bisphosphonates (BPs), denosumab, and other drugs mostly in patients with cancer, myeloma, and osteoporosis.

Not all clinicians are aware of ONJ epidemiology, risk factors, treatment, preventive measures. On 2005, oncologists and haematologists together with other specialists, nurses and data managers founded a multidisciplinary team for study, treatment and prevention of ONJ at Alessandria Hospital (North-Western Italy).

The work of the group was included since 2010 within a Multidisciplinary Osteoncology Team (Gruppo Interdisciplinare Cure – Osteoncologia) caring patients with cancer and myeloma patients suffering for bone metastases, cord compression, bone-related pain, bone fractures, osteopenia, osteoporosis, and other diseases, together with specialists of other units (Radiotherapy, Orthopaedics, Rheumatology, Physiatry and Rehabilitation, Pain Control Unit, Palliative Care, etc). We report about the activity of the group and demonstration of importance of ONJ disease in the multidisciplinary osteoncology team work burden.
Background. Osteonecrosis of the Jaw (ONJ) is not rare in cancer and myeloma patients receiving monthly doses of Bisphosphonates (BPs) and denosumab (120 mg/month), and it is occasionally observed in osteoporotic patients (or patients receiving drugs to prevent bone loss) after BPs and denosumab (60 mg every 6 months). In referral centers, ONJ is object of multidisciplinary and multi-professional work.

In Alessandria hospital, North-Western Italy, an ONJ study group was established in late 2005, after first cases of ONJ were observed in cancer and myeloma patients treated in the Alessandria (hub) hospital and in neighbor (spike) hospitals. The ONJ study group included maxillofacial surgeons, dentists, haematologists, oncologists, nurses, radiologists, nuclear medicine and infective disease specialists, aimed to evaluate patients at risk of ONJ before start of antiresorptive treatment (if possible) and during that treatment (in all the cases).

The ONJ team made activity on different spheres:
1. care of patients receiving antiresorptive agents; prevention, screening, diagnosis, treatment of ONJ (more than 900 at risk patients till to 2020) [1];
2. the creation of a ONJ Documentation Centre, to help diffusion of knowledge about ONJ [2][3];
3. the prevention screening, diagnosis, and treatment of ONJ [4];
4. the collaboration within the regional cancer network (Rete Oncologica Piemonte and Valle d'Aosta): the development and diffusion of a data collection sheet for the regional ONJ Working Group; establishment of a register of ONJ cases seen in more than 30 hospital centres [5][6]; cooperation with the Oncology Network Study Group that drafted the “Recommendations for the use of BPs in cancer patients” [7];
5. the organization of several regional and national ONJ meetings, since 2007 (see www.onjupdate.it);
6. the collaboration for national ONJ recommendations [8][9].

Since 2010, the ONJ study group was included in a larger Multidisciplinary Osteoncology Team (Gruppo Interdisciplinare Cure – Osteoncologia, according to nomenclature of the regional network Rete Oncologica di Piemonte e Valle d’Aosta) together with specialists of other units (Radiotherapy, Neurosurgery, Orthopaedics, Rheumatology, Physiatry and Rehabilitation, Pain Control Unit, Palliative Care, etc). The Oncology Team has regular meetings to review “complex” cases of multidisciplinary interest.

Material and methods. We reviewed a sample of complex cases discussed at multidisciplinary meetings in latest ten months, to evaluate the rate of patients discussed in the meetings due to ONJ suspect, diagnosis, treatment.

Results. In a sample of latest 10 months of meetings of the Osteoncology Group (mostly by Zoom, due to Covid pandemic), 78 complex cases were discussed (median 8 cases per meeting; range 6-10 cases). Most of cases were breast cancer, prostate cancer, lung cancer, renal cancer, and myeloma patients, with very different clinical problems (diagnosis, surgical and not surgical treatment, etc) of multidisciplinary interest. Out of 78 complex cases, 41 ones (41/78, 52%) were due to suspect or diagnosis of ONJ.

Conclusions. The ONJ disease may be a relevant issue in the activity of a multidisciplinaty group involved in osteoncology.

References


