

## Palliative care implementation in neuro-oncology—Where do we come from, where do we go?

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The goal of palliative care is to maintain and improve the quality of life of patients and their families during any stage of life-threatening illness, and to relieve burden in all dimensions during the entire course of the disease. Often misunderstood for end-of-life care only, the value of early implementation of palliative care has gained increasingly in importance within the past years. It is now an established fact that palliative care in cancer should be considered a simultaneous care to increase quality of life without necessarily shortening overall survival.<sup>1</sup>

One challenge to palliative care implementation is timing. Several additional factors complicate this issue in neuro-oncological patients. The aggressive nature of higher-grade gliomas with a rapid course of disease may preclude the engagement of the patient with the severity of the diagnosis and its implications. Likewise, the physician might be reluctant to address the question of palliative care implementation under the impression that it might shatter hope for the patient and the caregiver. Finally, with brain tumors, neurocognition and personality may suffer even at early stages of the disease, with implications on the decision-making capacity when it comes to advance care planning.<sup>2</sup> For patients with cancer, the American Society of Clinical Oncology (ASCO) recommends integration of palliative care for any patient with cancer within 8 weeks from diagnosis of advanced disease, and to discuss advanced care planning in patients with a life expectancy of less than a year.<sup>3</sup> By this definition, most patients with glioma qualify for an integrated approach of palliative care implementation. However, patients with higher-grade glioma may experience lesser referral to palliative care services compared to other cancer populations, despite high symptom burden and significantly shortened life expectancy.<sup>4,5</sup>

Meanwhile, the role of palliative care in patients with glioma has been acknowledged by the development of specific neuro-oncology guidelines for palliative care in adults by the European Association for Neuro-Oncology (EANO) palliative care task force.<sup>6</sup> Recently, a framework of supportive and palliative care for high-grade patients with glioma was proposed to implement needs-based support mechanisms at illness transition points over the course of disease, taking the complexity of timing into consideration.<sup>7</sup>

In this issue of *Neuro-Oncology Practice*, Wu et al<sup>8</sup> provide an overview of the use of early or late palliative care involvement in adult patients with glioblastoma and assess outcomes and trends in terms of healthcare resource utilization in a large cohort based on the SEER-Medicare database. By means of a retrospective study, a population of more than 10 000 patients with glioblastoma was analyzed for palliative care consultations at any time point during the course of disease and categorized into 3 groups of patients receiving either early consultations within 10 weeks from diagnosis or late consultations any time after 10 weeks from diagnosis, compared to patients without any documented palliative care contact.

An important message of this analysis is that, early or late, only 15.24% of all included patients received palliative care referral, despite the diagnosis of a life-limiting disease. Even in the group with the longest survival, the median overall survival of 7.98 months did not exceed the 12 months considered the cut-off to recommend advance care planning as proposed by the ASCO guidelines. However, the authors note a positive trend toward increasing referral to palliative care consultations over the years from 1997 to 2016.

While no significant differences emerged for healthcare resource utilization between early or late palliative care, survival differed significantly, with late palliative care patients experiencing the longest overall survival and early palliative care patients the shortest. However, the group of patients with early palliative care comprised patients that were more frequently diagnosed with biopsy and less frequently treated with radiation treatment or chemotherapy. Considering on top the median overall of only 2.5 months in this patient group, which is below expected ranges, the shortened survival in the early palliative care group might rather indicate that the choice of early referral to palliative care was related to a poor clinical condition, rather than attributed to palliative care interventions.

Due to limitations of the SEER-Medicare patient dataset, only patients aged 65 years or older were included here, possibly explaining the overall short survival and the very low percentage of patients treated with chemotherapy in the entire

study population. This somewhat limits the conclusion of the study, and it remains unclear to what extent the results are representative for a younger patient collective. Another database-related flaw is the lack of information on the type of palliative care intervention. Since referral to palliative care consultations is usually triggered by a specific patient-centered need, palliative interventions may vary in team composition and frequency, which is not captured in SEER database. Eventually, this study had to focus on classic endpoints, such as survival and cost analysis. While these outcomes are interesting and relevant in terms of comparability with other studies, the main goal of palliative care is should not be defined by parameters as survival prolongation or financial aspects, but by increase in quality of life and reduction of burden. To this aim, patient- and caregiver-reported outcomes are available,<sup>9</sup> and should be considered as additional outcome measures in neuro-oncological studies as well as in clinical practice.

Overall, the authors provided an important contribution to a better understanding of the use of palliative care in patients with glioblastoma in a very large cohort of patients, by raising the awareness of the underutilization of palliative care consultations, early or late in the disease trajectory. Finding the right timing and approach for palliative care implementation in neuro-oncology will remain a challenge. In patients with glioblastoma, no form of treatment has been confirmed as curative to date, and therefore, the disease will remain palliative from the beginning for most patients. Eventually, the patients' and caregivers' needs will probably help define the right moment for palliative care implementation more accurately than any other predictor, with the primary goal to relieve suffering.

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