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Primary and Specialist Palliative Care in Neurosurgery: A Narrative Review and Bibliometric Analysis of Glioblastoma and Stroke

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Abstract

Introduction: Due to the increased demand for palliative care (PC) in recent years, a model has been proposed to divide PC into primary PC and specialist PC. This paper aims to delineate the indications for primary and specialist PC within two common neurosurgical conditions - glioblastoma (GBM) and stroke.

Methods: A systematic review and bibliometric analysis was conducted to better appreciate the practice trends in PC utilization for GBM and stroke patients using several databases.

Results: There were 70 studies on PC for GBM, the majority of which related to patient preference (22, 31%). From 1999-2022, there was significant growth in publications per year on this topic at a rate of ~0.3 publications per-year ($p < 0.01$). 44 identified studies on PC for stroke, the majority of which related to communication strategies (14, 32%). There was no significant growth in stroke publications per-year ($p = 0.22$) from 1999-2022.

Discussion: Due to the progressively disabling neurological course of GBM, we suggest that a specialty PC team be used in conjunction with the neurosurgical team early in the disease trajectory while patients are still able to communicate their preferences, goals, and values. In contrast, the acute and chronic management of stroke pose differing implications for PC needs, with the acute stage necessitating adept, time-sensitive communication between patient, family, and care teams. Thus, we propose that primary PC should be included as a core competency in neurosurgery training, amongst other stroke specialists. This paper is meant to serve as a framework to improve the multidisciplinary palliative care approach for complex neurosurgical patients with conditions such as GBM and stroke. Neurosurgery providers should receive adequate training in primary PC and should be able to identify the clinical scenarios in which a PC specialist is needed.

Keywords: glioblastoma; neurosurgery; palliative care; stroke.

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