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Palliative care and active disease management are synergistic in modern surgical oncology

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ABSTRACT

Palliative care has long been described in medical literature but only recently is being discussed in the surgical domain. Mounting evidence suggests that early integration of palliative care improves patient outcomes and this is especially true of oncology patients. Thus, the pendulum is swinging toward recognizing that palliative care and active disease management are not mutually exclusive but rather synergistic in modern surgical oncology. Here we use a patient vignette to demonstrate the new challenges and possibilities in modern surgical oncology, we then discuss the historic perspective of palliative care and describe how the paradigm is shifting. Finally, we introduce a model that may be beneficial in conceptualizing this new way of thinking about and integrating palliative care into surgical oncology.

Hypotheses

- *Traditionally, surgeons do not explore the role of palliative care in the management of their oncology patients.*
- *Evidence shows early integration of palliative care improves oncology patient outcomes.*
- *Palliative care and active disease management are not mutually exclusive.*
- *Current conceptual models are inadequate to facilitate the integration of palliative care in modern surgical oncology.*
- *The Bow Tie Model of Palliative Care is one such model that could fill this void.*

At 33 years of age, Edward was seen by a surgical oncologist for a hyperpigmented lesion on his lower back which had been biopsied to show melanoma with high-risk features. After a wide local excision and sentinel lymph node biopsy, Edward was found to have metastatic melanoma to the brain and lungs. His surgical oncologist was devastated to have to give him this diagnosis and, with no chance of curative treatment options, the surgeon referred Edward to medical oncology to explore palliative treatment options.

Two years later, Edward was referred to thoracic surgery for management of symptomatic, bilateral malignant pleural effusions. His treatments to date had included stereotactic and whole brain radiation and oral temozolamide. His disease had been stable for 5 months after starting a new therapeutic agent that worked by activating a cytotoxic T lymphocyte protein receptor (ipilimumab). When Edward's disease progressed with increasing pulmonary disease and a new adrenal mass, a referral was made to the outpatient palliative care team who became involved in his care and end-of-life planning began to take priority.

The palliative care service in collaboration with Edward's primary care physician relieved his shortness of breath and back pain with opioids and low-dose corticosteroids. His constipation was alleviated by an aggressive, stepped bowel protocol. The palliative care service was again activated when he developed myoclonus and agitation from the increasing doses of oral hydromorphone requiring opioid rotation. A hospice nurse visited the home regularly to assist with symptom management and to ensure that the family was able to cope with his physical and emotional needs. A social worker from the palliative care team arranged to assist the family with advance care planning and to help communication with the children. Edward's parents also attended some appointments and were very involved in helping care for him and his young children at home. Although initially very depressed about having the home hospice program involved in his care and doing his advance care planning, Edward was told by the palliative care service that his

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oncologic care would continue. His anxiety then resolved and his medication needs decreased considerably.

A clinical trial of pembrolizumab, which targets the programmed cell death 1 (PD-1) receptor, opened at around the time Edward was being scheduled to undergo video-assisted thoracoscopic pleurodesis to address his malignant pleural effusions. Edward was predictably despondent and ambivalent about proceeding with further surgery and initiating an investigational drug trial. The palliative care team organized a family meeting to re-examine Edward's physical, emotional, and spiritual goals. Within days of starting the treatment, his symptoms improved so dramatically that the operation was cancelled. His melanoma continued to decrease in size for the next 24 months. Edward, his family, and his doctors were elated, because they had been preparing for death and focusing on maximizing quality of life, yet remaining cautiously optimistic that this treatment would continue to work. The pembrolizumab was eventually stopped due to drug-induced colitis, but the disease stabilized.

One year later, now 38 years old, he is off all treatment with only a small amount of residual disease in his lungs and abdomen that continues to shrink. He is thriving: running four times per week and working full time, a future neither he, his family, nor any of his healthcare team, including his initial surgical oncologist, could have ever anticipated several short years ago. Yet, he is not cured and the future remains uncertain for Edward, his family, and his healthcare team. The fear of resurgence is still present, but Edward and his family express their gratitude for the help they received when he was very ill and feel secure in the knowledge that should his cancer progress again, they have confidence that support will be available for them when and where they need it.

This account demonstrates the changing face of modern cancer care—one of uncertainty, surprising outcomes, emotional rollercoasters, and survivorship like never before. Patients such as Edward force the surgical oncologist to re-examine outdated models of expected disease trajectories and the traditionally held paradigms of curative and palliative approaches to cancer care. As this case illustrates, this simplified, dichotomous approach to cancer care is inadequate. Instead, we need to incorporate both approaches into surgical practice as complementary and synergistic methods that can contribute to positive patient experiences and outcomes.

Historic Perspectives

Palliative care as a concept was introduced in the United Kingdom in the 1960s by Dame Cecily Saunders, with the establishment of hospice care for patients at the end of their lives. This concept had existed long before then, because the initial role of the medical profession was to focus on the relief of suffering, or palliation, because cure was not within the capacity of most physicians' armamentaria.[1] The advent of anesthesia ushered in the possibility of repairing or removing one's ailment by surgery, which began the contrasting concepts of cure versus comfort as 2 divergent philosophies of health care.[1] This is perhaps why the idea of cure resonates so strongly with surgical oncologists. From early in the development of palliative care as a medical discipline, surgical oncologists recognized a role for palliative care in the holistic management of their cancer patients.

Since that time, the understanding of what palliative care is has evolved tremendously. The field of palliative care has expanded from supporting patients in the last few days of their lives to the management of chronic, life-threatening illnesses by emphasizing the quality of life rather than its quantity. This conceptual shift is reflected in the changing definition of palliative care by the World Health Organization over time. The original definition (1990) focused on the dying process: "Palliative care is the active total care of patients whose disease is no longer responsive to curative treatment. Control of pain, other symptoms and of psychological, social and spiritual problems is paramount. The goal of palliative care is the achievement of the best possible quality of life for patients and their families."[2]

In contrast, the current World Health Organization definition (2002) is: "Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, psychosocial and spiritual."[3]

The Traditional Model of Palliative Care

Although the definition of palliative care has evolved, the way we as surgical oncologists envision its role in cancer care through conceptual models has not changed. One popularly quoted model is the Canadian Hospice Palliative Care Association Model (Fig 1). This model moves in one direction from left to right. After the diagnosis of a life-limiting illness, early on disease-modifying treatments (the curative approach) are pursued, including surgical interventions. Palliative care is usually discussed when the disease-modifying treatments are proven to be unsuccessful. This approach is depicted by the rising incline of the palliative care triangle in the diagram, rising from the bottom left corner to the top right corner. At the far right of the schematic, the contribution from the disease-modifying treatment triangle is negligible, and palliative care is the sole approach pursued until death occurs. Although

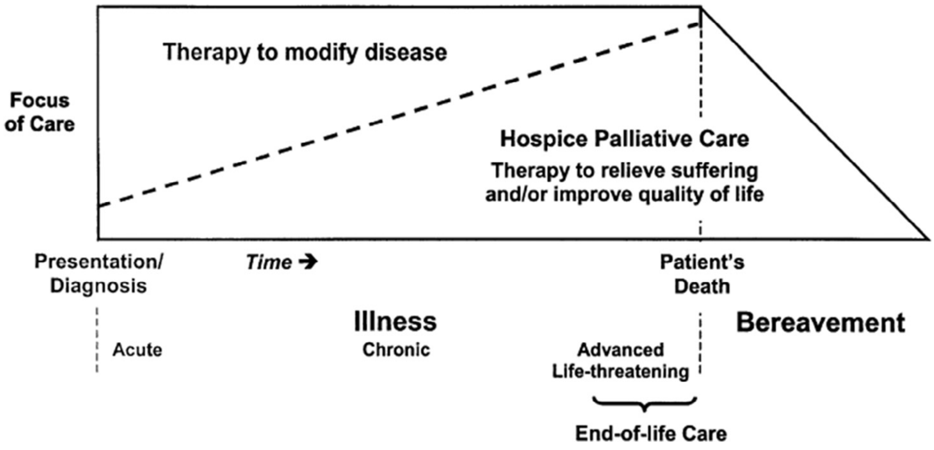

Fig. 1. Canadian Hospice Palliative Care Association Model.

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