Surgical Palliation in Advanced Disease: Recent Developments

Geoffrey P. Dunn, MD, FACS

Address
Department of Surgery, Hamot Medical Center, 2050 South Shore Drive, Erie, PA 16505, USA.
E-mail: gpdunn@erier.net

Current Oncology Reports 2002, 4:233–241
Current Science Inc. ISSN 1523-3790
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Introduction
The year 2001 saw significant developments in the role of surgery and surgeons with respect to palliation of symptoms in advanced oncologic illness. These developments not only included increased application of less invasive surgical procedures but also involved changes in the conceptualization of palliation by surgery and surgeons for the entire spectrum of advanced disease. A continuation of the shift from mortality- and morbidity-measured outcomes to quality-of-life outcomes is evident, and the literature reflects attempts to familiarize surgeons with quality-of-life measurement [1,2•,3]. Some of the highlights of the previous year’s published work include studies of surgical oncologists’ perceptions about palliative surgery as well as identification of the varying definitions of palliative surgery that are currently in use. In addition, commitment to competency in palliative care, already established in the medical specialties, is now identifiable in surgical institutions, most significantly, the American College of Surgeons, the American Board of Surgery, and the Society of Surgical Oncologists.

Palliative Surgery and Palliation by Surgeons: Philosophic Developments
The year 2001 commenced with the publication of Palliative Care by the Surgeon, the volume title of the January 2001 issue of Surgical Clinics of North America [4•]. The series editor, Blake Cady, a surgical oncologist, had recognized a shift in the conceptualization of surgery and the role of surgeons in the treatment of oncologic disease. In an earlier publication, Cady [5••] attributed this changing role to changes in disease presentation and new insights into the biology of disease. These changes require the surgeon to be aware of adjuvant nonsurgical treatments that would dictate the extent of surgical intervention.

This point of view implies the importance of surgeons maintaining a voice in management policy rather than turning over management entirely to nonsurgeons following the performance of a technical resection. In the January 2001 Clinics, Cady’s philosophy encouraging the ongoing involvement of surgeons in the treatment of cancer was further extended to the treatment of patients with far advanced disease by surgeons, occasionally with surgery, for the relief of distress and not the eradication of disease [4•]. This application of Cady’s philosophy was intended to free surgeons from the more limited and limiting paradigm of treating an advanced disease instead of an advanced illness. Several of the articles in this volume were intended to direct the surgeon to look backwards in time and inwards in the present as necessary prerequisites for accomplishing this shift in perspective. In the first article, by Nuland [6], the surgical personality is scrutinized for its capacity to respond to the needs of patients with advanced illness. Complementing the articles addressing philosophic, psychologic, and spiritual issues of the surgeon are those familiarizing surgeons with current techniques of surgical and nonsurgical palliation for common physical symptoms in advanced oncologic illness.

An interesting trend in surgical culture is evaluation of the surgeon’s or institution’s role as a prognostic factor in a given disease. This trend has been demonstrated in the attention given to quality assurance in surgery and pathology in the performance of sentinel node biopsy for breast cancer and melanoma, and in the literature concerning the treatment of colorectal cancer [7,8]. If a surgeon can be a prognostic factor in the outcome of a disease, could he or she be a prognostic factor in outcomes related to quality of life? This haunting question has driven some surgeons
to look more closely at themselves and their role in the management of chronic and incurable disease.

An immediate problem confronting surgeons who wish to develop a baseline for future research and clinical trials for palliative surgical procedures is the lack of a consistent definition for palliative surgery. Palliative surgery is not the treatment of stage IV disease, though literature may reflect this definition [9]. Easson et al. [10] point out several definitions of palliative surgery in the literature, including resection with microscopic or gross residual tumor left in situ at the end of the procedure and resection for recurrent or persistent disease after primary treatment failure (“salvage procedure”). They propose an alternative goal of palliative surgery: the relief of symptoms and suffering, not the prolongation of life. Closely associated with the lack of consensus concerning the definition of palliative surgery is the scarcity of quality-of-life data in the literature of surgical oncology [11,12], despite some promising work by Sugarbaker et al. [13] as early as 1982.

During the past year, much work defining the scope and approach to palliative surgery in oncology patients has been done through the collaborative efforts of the departments of surgery and nursing research at the City of Hope National Medical Center in Duarte, CA. For this project, McCahill et al. [14,15] surveyed members of the Society of Surgical Oncology in a 110-item assessment about their definitions, extent of usage, attitudes, and goals regarding palliative surgery. Although relief of pain and other symptoms was considered the most important goal of palliative surgery, an appreciable number (30%) of those surveyed used patient prognosis, an objective criterion, to define palliative surgery. The study confirmed the findings of Easson et al. [10], that, for many surgeons, the term “palliative surgery” is synonymous with residual disease at the completion of cancer surgery. The majority of the respondents reported that the best use of the definition of palliative surgery was based on preoperative intent rather than postoperative findings.

Some surgeons felt that the definition should include procedures performed for general problems of illness related to cancer, eg, establishment of central venous access or procedures for cancer treatment complications. Of note was the finding that 30% of the respondents (70% of whom had oncology fellowship training) had received no training in palliative care during residency or fellowship. In a paper presented at the 2001 Clinical Congress of the American College of Surgeons, McCahill et al. [15] noted, based on a survey of surgeons treating patients with advanced symptomatic disease due to solid tumors, that the most common ethical dilemma reported by surgeons was how to provide patients with honest information without destroying their hope. It is precisely this communication skill that is the foundation of all palliative care.

Also at City of Hope, Krouse et al. [16] demonstrated that surgical intervention in palliative care is common in a cancer center setting, though overall 30-day mortality and morbidity rates are high (12.2% and 21.3% respectively). Nevertheless, a significant number of patients had short hospital stays and low morbidity. The investigators concluded that patients and families must be aware of the high risks and understand the clear objectives of these procedures.

Ultimately, the field of surgical oncology, as well as patients and their families, will be rewarded by a more consistent definition of palliative surgery that makes it possible to frame better questions for prospective trials conforming to the standards of evidence-based medicine. One of the great accomplishments of the past few years in this area has been a broad-based, self-conscious attempt to define and recognize a definition of palliative care conforming to the international standard that has evolved over the past 20 years.

Palliative Surgery: Technical Trends and Innovations
The past year witnessed no striking technical innovations in surgical symptom palliation, but an increased application of less invasive techniques, such as laparoscopy, and refinement of selection criteria for established techniques were notable. Several papers identified patient populations and problems previously thought to be out of the reach of surgical palliation or the newer, less invasive technologies.

Laparoscopy
Laparoscopy has already contributed significantly to the role of surgery in palliative care whether indirectly in its supportive function of diagnosis and staging or directly in its function of symptom palliation. Several series have demonstrated that laparoscopy can eliminate the need for laparotomy for staging of pancreatic cancer, especially if it is complemented with peritoneal lavage and laparoscopic sonography [17,18,19]. Espat et al. [20] found a resectability rate greater than 90% with laparoscopy included in the preoperative evaluation of pancreatic cancer. The use of laparoscopy and laparoscopic sonography for the evaluation of other intra-abdominal malignancies, such as gastric and colorectal cancer, is still under evaluation, though some small series have demonstrated that “second-look” laparoscopy can detect recurrent, disseminated colorectal cancer in patients with rising tumor markers and normal radiographic studies, obviating laparotomy [21,22]. Lowy et al. [23] demonstrated that only 5% of patients found to have metastatic gastric cancer at laparoscopy required subsequent laparotomy for the palliation of symptoms.

Case series are accumulating in which bypass procedures [24], intestinal intubations [25], ostomy formations [26], instillation of chemotherapeutic or