



Advances in the management of peritoneal carcinomatosis

Therapeutic approaches to the management of metastatic disease in a variety of malignancies are in constant evolution. The advent and refinement of multidisciplinary treatment strategies of oligometastatic disease, such as the range of liver-directed therapies for colorectal liver metastases, has been paradigm-changing (1). Furthermore, the introduction of immunotherapy in metastatic melanoma has been a breakthrough that has galvanized research and expanded the utilization of immune-based treatments for a wide variety of additional malignancies (2,3). More recently, circulating tumor DNA is increasingly incorporated as an additional data point for risk stratification and clinical decision-making in patients with metastatic disease (4).

The management of peritoneal metastases (PM) has certainly evolved as well over time; however, PM are associated with a number of unique challenges compared to other metastatic sites, including the propensity for causing symptomatic impediments such as bowel obstructions, the general lack of responsiveness to systemic therapy, and limitations of radiographic imaging in diagnosis, staging, and surveillance (5-7). Such challenges have been reflected in part by historical studies, which have shown PM to be associated with worse survival than other metastatic sites of disease (8). Indeed, among patients with metastatic colorectal cancer, aggregate trial data indicated survival with PM to be similar to the diminished survival associated with multiple organ system metastases (8).

It is perhaps the reporting and interpretation of these studies that has provoked and perpetuated a general nihilism, and therefore inertia, in exploring surgical approaches to PM. Nevertheless, cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) are interventions adopted over the past several decades and have been shown to be effective in achieving improved survival across multiple histologies among selected patient populations (9-11). Even with advances in systemic therapeutic regimens, it is especially noteworthy that even CRS alone, in conjunction with use of systemic therapy, is associated with durable survival outcomes in patients with, for example, PM from colorectal cancer (11).

Although the integration of multidisciplinary clinical decision-making and the leading care of expert centers for PM have resulted in improving patient outcomes, furthering our understanding of disease biology in the context of scientific and technological advances will further accelerate the improvement of care for patients with PM (12,13). In this special series, a collection of manuscripts highlights the current literature across an array of histologies and presents the groundwork upon which future discovery is based.

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