

Bladder cancer represents the second most frequent tumor of urologic interest and the ninth most frequently diagnosed cancer worldwide, with the highest incidence rates observed in men in Southern and Western Europe, North America, as well as in certain countries in Northern Africa or Western Asia. Incidence rates are consistently lower in women than in men, although gender differences vary greatly across countries. Bladder cancer ranks 13th in terms of deaths, with mortality rates declining particularly in the most developed countries. In 2018, 81,190 new cases (62,380 male and 18,810 female patients) have been estimated in USA. In the same year, 17,240 deaths (12,520 male and 4,720 female patients) have been estimated. Europe has among the highest incidence rates of bladder cancer in the world. In 2012, 118,365 new cases were estimated in men and 32,932 in women with an estimated number of deaths of 39,522 and 12,889 respectively. Moreover, the incidence rates of bladder cancer increased in many European countries, and the mortality rates declined in a large number of nations, particularly in more developed regions.

Urologic and oncologic communities are strongly involved in the hard task of improving the management of this disease that requires appropriate healthcare resources. This book is a very interesting and extensive collection of contributions focused on the most controversial and novel topics in the field of non-muscle and muscle-invasive bladder cancer.

With regard to management of non-muscle invasive bladder cancer, one of the major open issues remains how to identify patients harboring a higher risk of progression who would be candidate for an early radical cystectomy instead of a conservative treatment. Although numerous scoring systems and risk tables based on traditional clinical parameters have been proposed over the last years, several studies on molecular biomarkers, circulating tumor DNA and gene expression have recently been performed with the aim to better characterize patients with a high risk of progression.

In the last decade, many advances have been accomplished in the treatment of muscle-invasive bladder cancer, with the multidisciplinary approach representing the most relevant one. Neoadjuvant and adjuvant chemotherapy have been increasingly considered to enhance the oncologic outcomes of patients undergoing radical cystectomy and urinary diversion. Neoadjuvant chemotherapy augments 5-year overall survival by 8% and international guidelines recommends neoadjuvant chemotherapy in patients with T2-T4a, cN0M0 bladder cancer who are candidate for radical cystectomy. However, some issues concerning patient selection are still open because no tools are yet available to identify those patients who may profit most justifying the potential adverse events. Advanced patient age and comorbidities as well as symptoms and renal function impairment could represent limitations to neoadjuvant chemotherapy. Moreover, recent studies concerning histologic subtypes seem to show that not all the histologic subtypes have the same response to chemotherapy. Obviously, identification of molecular and genetic markers could help physicians select the best candidates for neoadjuvant chemotherapy and to differentiate responders from non-responders. Although multiple studies evaluated the role of neoadjuvant chemotherapy, only very few tested if upfront chemotherapy is really better than adjuvant chemotherapy in patients undergoing radical cystectomy. This aspect should be better analyzed in the context of the appropriate clinical trials.

Radical cystectomy remains the gold standard treatment of muscle-invasive bladder cancer and high-risk non-muscle-invasive bladder cancer unresponsive to local immune- or chemotherapy. It still is a very complex procedure that should be centralized to high-volume centers and in the hands of high-volume surgeons with the aim to significantly reduce major complications and mortality.

Looking at the surgical approach, the most important change in the last decade has been represented by robot-assisted radical cystectomy as an alternative to the traditional open radical cystectomy. In 2013, data from National Cancer Database in US showed that 25% of radical cystectomy cases were performed robotically. Currently, robot-assisted radical cystectomy is associated with longer operative time, major costs, but shorter length of hospital stay and less blood loss compared to open radical cystectomy. Moreover, in a recent randomized clinical trial, 2-year progression-free survival estimates turned out to be overlapping between the two approaches, although the rate of local and regional recurrence was lower in open radical cystectomy patients with a statistically non-significant trend in favor of open radical cystectomy for distant recurrences.

Regardless of surgical approach, the choice between an incontinent urinary diversion and a continent orthotopic neobladder remains an important issue influencing the health-related quality of life of patients. Interestingly, literature data show an increasing percentage of ileal conduits instead of more time-consuming neobladders. Whether this is the consequence of surgeon preferences or the result of an appropriate counselling process remains an open question.

Metastatic patients are a true challenge considering the poor outcomes observed in this category of patients. Beyond traditional chemotherapy, immunomodulatory therapies have shown significant anti-tumor activity with tolerable safety

profiles and durable responses in patients with locally advanced and metastatic urothelial carcinoma.

This book collects several important contributions by key opinion leaders on the most important novel progress in diagnosis and treatment of bladder cancer. It will provide urologists, oncologists and other physicians involved in the management of bladder cancer with an excellent update that will stimulate new basic and clinical research activities.



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