

Seminars article
Seminars special issue on lymphadenectomy for urologic malignancies: Introduction

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The last 2 decades have witnessed a dramatic evolution in the surgical treatment of urologic malignancies. With the advent of minimally invasive surgery, newer techniques have been adopted and older surgical practices have been re-evaluated and further refined. As a result, there has also been a concurrent increase in the body of literature pertaining to the role and extent of lymphadenectomy for common urologic malignancies.

Lymphatic dissemination for many urologic cancers is the first step along the pathway to systemic dissemination. The importance of the presence or absence of nodal involvement and management strategies accordingly is an important aspect of cancer care for most urologic malignancies. There has been an increasing body of literature recently addressing the modern management of lymph nodes in urologic malignancies in general. Proper management of lymph nodes is of critical importance for the accurate staging of most urologic malignancies. Staging is of critical importance for adjuvant and neoadjuvant treatment strategies. Increasingly, novel systemic and targeted chemotherapeutic, immunotherapeutic, and radiotherapeutic strategies are utilized based on accurate staging strategies. Newer imaging modalities aid in the management and diagnosis of possible nodal involvement. However, tissue diagnosis by percutaneous and in most instances formal nodal dissection at the time of surgery for primary disease remains the most definitive staging method that is needed prior to

multimodal treatment strategies. Lymph node dissection in a different setting *after* surgery to remove the primary malignancy can also be ultimately curative in some settings most notably in testicular and penile cancers. Accurate understanding of the patterns of lymphatic spread and identification of its presence is important for selection of patients not only for adjuvant treatment but also for enrollment in appropriate clinical trials.

In this seminar section, I am grateful to an outstanding group of contributors who have dedicated their valuable time to shed some light on this topic.

In the first seminars article, Chalouhy et al. provide a current review in the role of lymphadenectomy in prostate cancer. The review is relevant in the era of primarily robotic approach to prostatectomy where the indications as well as the adequacy of nodal dissection are commonly questioned. They provide a review of predictive models and the role of lymph node dissection in low, intermediate, and high-risk prostate cancer. Ghodoussipour and Daneshmand provide a comprehensive review of the role of lymphadenectomy for bladder cancer. They address the various templates employed in the dissection. Their review is timely in this era of neoadjuvant chemotherapy and sheds light on the controversies surrounding indications and extent and adequacy of lymphadenectomy in this potentially deadly disease. John et al. address the role of lymph node dissection in kidney cancer. They review recent literature on the topic and provide insights into the staging and therapeutic benefits of lymph node dissection, which is relevant, especially in this era of targeted therapy.

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Patterns in lymphatic spread are relatively more predictable for testicular and penile cancers. There are 2 articles addressing testicular cancer and the role of lymphadenectomy in its management. The articles are from 2 centers of excellence with tremendous experience in the management of testicular cancer, namely Indiana University and Memorial Sloan Kettering Cancer Center. In the first article, Masterson et al. address the role of retroperitoneal lymph node dissection (RPLND) in various clinical scenarios for both seminoma and nonseminomatous germ cell tumors. They address clinical scenarios in which they believe that RPLND is underutilized or those in which it can actually be ill-advised. Moreover, they discuss the role of RPLND in the postchemotherapy setting for each entity and also interestingly in patients with variant histology. In the second article, Mano et al. address their perspectives on the role of RPLND in some of the same clinical scenarios as Masterson et al. Like Masterson, they address the role of RPLND in early stage pure seminoma. Furthermore, they shed additional light on the role

of desperation RPLND and complications and functional outcomes with preservation of ejaculation using modified templates. An interesting section on minimally invasive RPLND is included. Finally, Azizi et al. address the role of lymphadenectomy in penile cancer. This is a comprehensive review that provides insight into indications, extent, and complications of this potentially morbid operation. The role of sentinel node biopsy as well as imaging modalities and finally minimally invasive techniques as well as the role of chemotherapy and future direction in this relatively rare cancer in the developed countries is addressed.

In summary, this edition of the *Seminars* will provide the reader and the urologic oncologist in particular a quick reference tool for the management of lymph nodes in malignancies associated with these “index” genitourinary organs. I wanted to thank all contributing authors for their dedication, diligence, and expertise to make this edition of the *Seminars* a worthwhile compilation and addition to the literature.