Preface

Imaging in Gynecologic Oncology

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Editors

Gynecologic malignancies account for a significant proportion of disease-related morbidity and mortality in women throughout the world. Multimodality imaging, predominantly with PET, ultrasonography (US), computed tomography (CT), and MR imaging, plays an essential role in the diagnosis, staging, pretreatment planning, response assessment, and surveillance assessment of patients with such conditions. Therefore, in this issue of *PET Clinics*, we provide a series of state-of-the-art articles regarding the application of multimodality imaging to various gynecologic malignancies.

A review of the role of conventional imaging (namely US, CT, and MR imaging) in patients with gynecologic malignancies is initially provided in two articles, including reviews of the staging assessments for individual tumor types. The role of FDG-PET (including PET/CT and PET/MR imaging) for comprehensive assessment of patients with cervical cancer, ovarian cancer, and other gynecologic cancers (including endometrial cancer, vulvar cancer, vaginal cancer, and uterine sarcoma) is then discussed in three articles. Radiation therapy, which is an important therapeutic option in the management of gynecologic tumors, is discussed in the context of PET imaging. Subsequently, non-FDG-PET radio-tracers that may add value for optimizing the management of patients with gynecologic tumors are reviewed. Importantly, PET assessment of gynecologic malignancies may be confounded by normal variants as well as other pitfalls, and so these are highlighted in order to minimize errors in clinical PET study interpretation.

Quantitative imaging is playing an increasingly significant role in the assessment of patients with various disease conditions, and so this important topic is discussed in the context of gynecologic oncology. Last, an article is provided that discusses some emerging molecular imaging techniques in gynecologic oncology, including new MR imaging-based technologies such as chemical exchange saturation transfer imaging and MR spectroscopy with dynamic nuclear polarization, as well as radiomics.

We would like to thank all of the authors who contributed articles to this issue of *PET Clinics*. It is our hope that readers of these articles will utilize the knowledge within to help ameliorate the suffering of women with gynecologic malignancies worldwide by optimizing personalized diagnosis and treatment through the use of multimodality imaging.

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