

## Letter From the Guest Editor



Gynecological cancers originate from the female reproductive organs. Each cancer is unique from the perspective of risk factors, signs and symptoms, and management. Incidence of these cancers increases with age, and early diagnosis leads to a better outcome. In this special issue of the *Seminars in Ultrasound, Computed tomography and Magnetic Resonance Imaging*, a faculty of internationally recognized experts presents the imaging findings, staging, and clinical challenges that the readers will find useful in the management of common gynecological cancers.

Cervical cancer is the fourth common gynecological malignancy and affects women of child bearing age. Dr Devine et al from MD Anderson Cancer Center present an excellent review of the current state of the art imaging in the diagnosis and staging of cervical cancer. The International Federation of Gynecology and Obstetrics now incorporates cross-sectional imaging in the staging of cervical cancer

Endometrial cancer is the most frequent gynecological cancer in the developed countries. Dr Faria et al from MD Anderson Cancer Center present the imaging findings and the role of ultrasound and cross-sectional imaging in the management of a patient with endometrial cancer. Although the International Federation of Gynecology and Obstetrics staging is surgical, diagnostic imaging is critical in planning appropriate surgical intervention planning and monitoring of these patients.

Uterine carcinosarcomas are malignant tumors of the uterus containing both epithelial and connective tissue elements. Dr Sagebiel et al from the MD Anderson Cancer Center describe the imaging features and differential diagnosis of these uterine malignancies that are also referred to as mixed mullerian tumors of the uterus.

Ultrasound remains the primary and the most useful modality in the characterization of ovarian tumors and helps provide a risk of malignancy assessment that guides the gynecologist into deciding on appropriate surgical management and the need to involve a gynecological oncologist and/or referral to a specialized center for management. The article on ovarian cancer imaging describes the risk assessment

models, imaging features, and staging and differential diagnosis of ovarian cancer.

Pelvic masses that arise from structures other than the uterine body or the ovary can be challenging and have the potential of being mistaken for an ovarian malignancy. The differential diagnosis and imaging features of the common nonovarian mimics of ovarian cancer is presented.

Dr Lin et al from the University of Sao Paulo Medical School discuss the spectrum of gestational trophoblastic neoplasms and the prime role of ultrasound in the diagnosis and monitoring of patients with gestational trophoblastic neoplasia. The adjunctive role of other imaging modalities is also presented.

Dr Longatto-Filho et al from the University of Minho in Portugal, University of São Paulo School of Medicine and Barretos Cancer Hospital, describe tumor biomarkers associated with cervical, uterine, and ovarian cancers. The use of tumor markers in the diagnosis of these gynecological cancers and their potential role in providing individualized treatment and to determine prognosis is discussed.

Adenomyosis and endometrial cancer can coexist. Staging of endometrial cancer can be challenging in the presence of adenomyosis. The accuracy of MRI in the staging of endometrial cancer is reduced because of difficulty of tumor invasion in the myometrium affected by adenomyosis. Dr Khalifa et al from the University of Minnesota and the University of Toronto describe the challenges faced in the staging of endometrial cancer in the presence of adenomyosis.

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