

Preface



Lillian L. Siu, MD, FRCPC
Guest Editor

This issue of *Hematology/Oncology Clinics of North America*, entitled “Head and Neck Cancer,” provides a timely update of the substantial knowledge that has been gained in the diagnostic and therapeutic areas of head and neck malignancies over the past decade. Advances in molecular biology have elucidated cellular proteins and pathways that play critical roles in the pathogenesis and progression of head and neck cancers. The identification of human papilloma virus (HPV) as an etiologic pathogen in an increasing subgroup of head and neck cancer patients has led to a growing body of scientific and epidemiologic literature on this disease entity. Innovations in surgical techniques, radiation delivery, systemic therapy (including chemotherapy sequencing and incorporating of targeted agents), and diagnostic imaging constantly are challenging existent standards of care.

Among the contributors to this issue are field experts from otolaryngology, radiation and medical oncology, diagnostic imaging, speech language pathology, and biostatistics, which highlights the relevance of a multidisciplinary approach in the management of this disease. Furthermore, the representation of authors from Asia, Australia, Europe, and North America underscore that head and neck cancer is a worldwide health issue.

The first three articles focus on the molecular, biological, and epidemiologic advances that have furthered understanding of the pathogenesis and progression of head and neck squamous cell cancer (HNSCC). The article by Drs. Stadler, Patel, Couch, and Hayes (entitled “Molecular Biology of Head & Neck Cancer: Risks and Pathways”) offers a comprehensive overview of various cellular molecules and pathways, perturbations of which have putatively culminated in the hallmark processes of cancer. In their article entitled “Human Papilloma Virus in Head and Neck Squamous Cell Cancer – Recognition of a Distinct Disease Type,” Drs. Vidal and Gillison succinctly summarize the body of evidence supporting the etiologic role played by HPV in a subset of HNSCC, predominantly in the oropharyngeal area. The article by Drs. Licitra, Zigon, Gatta, Sánchez, Berrino, and the EUROCARE Working Group (entitled “Human Papilloma Virus in Head and Neck Squamous Cell Cancer: A European Epidemiological Perspective”) analyzes data from 15 population-based cancer

registries in Europe to assess the incidence and survival of HNSCC related and unrelated to HPV. Similarities and differences are highlighted in comparison to the trends that have been published based on the US Surveillance Epidemiology and End Results database.

The next six articles share the common theme of innovative strategies that have been incorporated into clinical practice or are undergoing definitive evaluations for implementation. The article by Drs. Lorch, Posner, Wirth and Haddad, "Induction Chemotherapy in Locally Advanced Head and Neck Cancer: A New Standard of Care?," discusses the renewed interest in induction chemotherapy, which is administered in combination with concurrent chemoradiation as a sequential therapeutic approach. Comparison of the therapeutic ratios between sequential therapy and concurrent chemoradiotherapy in HNSCC awaits the completion of randomized controlled trials. Drs. Kubicek and Machtay, in their article "New Advances in High-Tech-nology Radiotherapy for Head and Neck Cancer," showcase new radiotherapy technologies, such as intensity modulated radiation therapy and image-guided radiation therapy, which promise to deliver improved tumor locoregional control while reducing toxicity. In his article entitled "Innovation in the Surgical Management of Head and Neck Tumors," Dr. Gilbert describes some of the newer surgical procedures that aim to minimize morbidity and maximize functional preservation. Dr. Bernier, in his article "Incorporation of Molecularly Targeted Agents in the Primary Treatment of Squamous Cell Carcinomas of the Head and Neck," provides a detailed and authoritative review of the current use of molecularly targeted therapy, especially inhibitors of the epidermal growth factor receptor, in the locally advanced disease setting. The article by Drs. Le Tourneau and Chen ("Molecularly Targeted Agents in the Treatment of Recurrent or Metastatic Squamous Cell Carcinomas of the Head and Neck") focuses primarily on the development of novel agents in the palliative setting and uses, as a benchmark, the anti-epidermal growth factor receptor antibody ceutuximab, which has been approved in platinum-refractory recurrent or metastatic HNSCC. The last article of this group, eloquently written by Drs. Porceddu, Burmeister and Hicks, entitled "Role of Functional Imaging in Head and Neck Squamous Cell Carcinoma: FDG PET and Beyond," provides an up-to-date overview of the use of FDG PET scans in the diagnosis and management of head and neck cancer.

The next two articles offer insights into other important aspects of head and neck cancer management. In their article "Evaluation of Quality of Life and Organ Function in Head and Neck Squamous Cell Carcinoma," Drs. Martino and Ringash underscore the relevance of these patient-reported outcomes in the multidisciplinary care of HNSCC and provide guidance on the tools and techniques used to evaluate these endpoints. The article by Drs. Hotte and Wright, "Understanding the Results of Meta-Analyses in the Treatment of Head and Neck Squamous Cell Cancer," give expert interpretations of published results of landmark meta-analyses on the use of concurrent chemotherapy and fractionated radiotherapy.

The final three articles are unique, because they concentrate on other epithelial cancers of the head and neck besides HNSCC. Drs. Loong, Ma, and Chan provide their perspectives on the latest diagnostic and therapeutic strategies in nasopharyngeal cancer, in their article entitled "Update on the Management and Therapeutic Monitoring of Advanced Nasopharyngeal Cancer." In their article, "New Agents in the Treatment for Malignancies of the Salivary and Thyroid Glands," Drs. Mehra and Cohen give a state-of-the-art summary of the current knowledge in the molecular biology and clinical experience of these two tumor types, with particular emphasis on the use of molecularly targeted therapy. Lastly, in their article "Sinonasal Malignancies of Neuroendocrine Origin," Drs. Rischin and Coleman provide a comprehensive

overview and clarify the distinguishing features of these related but uncommon tumor types.

These 14 articles, contributed by the various experts, have encapsulated the recent progresses made in the molecular, epidemiologic, and clinical understanding of head and neck cancer. These collaborative efforts have formulated an excellent and knowledge-laden issue of *Hematology/Oncology Clinics of North America*.

Lillian L. Siu, MD, FRCPC
Princess Margaret Hospital
University of Toronto
610 University Avenue, Suite 5-718
Toronto, Ontario M5G 2M9, Canada

E-mail address:
lillian.siu@uhn.on.ca (L.L. Siu)