



INTRODUCTION

Collaborations in renal cell carcinoma research

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Association Journal Renal Cell
Carcinoma Supplement*

Welcome to the first supplement of the *Canadian Urological Association Journal*. As editors of this inaugural supplement, we are excited to present the most up-to-date information about renal cell carcinoma, written by respected Canadian and international physicians, surgeons and investigators.

The explosion of information about molecular genetics, surgical management and targeted systemic therapy made renal cell carcinoma an obvious choice of topic for this supplement. The incidence of this disease is increasing by 2%–3% each year, and more people are being diagnosed at an earlier stage. The cause of the disease is unknown, but more is known about its tumour genetics than any other common genitourinary malignancy. Applying new molecular techniques to characterize individual tumours is now a real possibility, as is understanding why some tumours progress and some are more sensitive to the targeted therapies that have recently become widely available.

These advances have brought new enthusiasm, integrated science and multidisciplinary collaboration to the management of patients with renal cell carcinoma. As a direct result of these advances, our patients' prognosis has improved, and all disciplines have a renewed commitment to continue striving for further advancements. Collaboration among basic scientists, urologists, medical oncologists, medical imagers and pathologists in research and management continues to develop and prosper. It is this collaboration that we celebrate in this supplement.

The supplement highlights key aspects of renal cell carcinoma, from its molecular genetics and molecular characterization to a review of immunotherapy and an overview of new systemic therapies, including sunitinib, sorafenib and temsirolimus, to advances in surgery for local and advanced kidney cancer. Future directions for the management of renal cell carcinoma in Canada and the collaboration that this will entail are also highlighted in the supplement. It also raises questions about current optimal first-line and second-line therapies and methods of integrating cytoreductive surgery into the overall management of metastatic renal cell carcinoma in an era of targeted therapy. Also raised are more global and societal issues such as how these new therapies will be paid for in a public healthcare system and what will happen to our patients if the public healthcare system decides not to fund them.

We would like to take this opportunity to inform our readers about the phase 3 adjuvant clinical trial for patients with localized renal cell carcinoma, sponsored by the National Cancer Institute of Canada. This clinical trial will study patients with an intermediate or high risk of relapse after nephrectomy (pT1B grade 3 or 4 and above, up to node-positive disease) and randomize patients to sunitinib, sorafenib or placebo groups for 1 year. The hope is that improvements in systemic therapy for metastatic disease will translate into a survival benefit for patients who have resected local disease. Patients can be randomized either before or after nephrectomy. Canada can make a real contribution to this research by accruing patients to this study. We hope that all Canadian centres will participate in this exciting clinical trial. Should you need further information, please do not hesitate to contact either of us.

Happy reading and learning!