Patterns of Care of Neuroendocrine Cancer in Ontario: Health Services Delivery

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Background: Delayed diagnosis and treatment of NETs may result in increased health care utilization, medical costs and patient distress. Patients may be treated by different specialists and modalities. The aim of this study is to analyze health care utilization of NETs patients in Ontario and variations in treatments.

Methods: Using the Ontario Cancer Registry (cross-linked with the Registered Persons Database and the Canadian Institute of Health Information Discharge Abstract Database), all cases of NETs were identified in Ontario (> 13 million persons) from 1994 to 2009. Baseline demographic, clinical and outcomes data were abstracted.

Results: A total of N = 5619 cases were identified. Two years, 1 year and 60 days prior to diagnosis, 60.3%, 52.3% and 35.3% of patients visited a hospital emergency room and 83.1%, 78.0% and 65.4% had a radiological investigation. Within 60 days pre-diagnosis 98% of patients visited a physician with family practice (83%), general surgeon (44%), cardiologist (25%) and gastroenterologist (22%) being the most common. Only 4% of patients visited an endocrinologist. Post diagnosis 26% of patients had chemotherapy and 8% had radiotherapy while 64% of patients had a major surgical procedure and 12% had an embolization procedure.

Conclusions: NETs patients have large health care utilization prior to diagnosis likely due to diagnosis delays. Treatment varies significantly with most patients receiving surgery. Further follow up on patient outcomes in relation to the treatments is warranted.