

Renal Neuroendocrine Tumors (rNETs): A Single Center Experience

Joseph A. Scales¹; Johann P. Ingimarsson¹; Gustavo Westin¹;
Timothy J. Hobday¹; Thorvardur R. Halfdanarson¹

¹Mayo Clinic

Background: The natural history and prognosis of patients with rNETs is not well known. We characterized the presenting features and outcome of therapy in rNETs patients seen from 2000 – 2015.

Methods: Patients were identified using the Cancer Registry. Clinical characteristics were extracted and survival calculated with the Kaplan-Meier method. Fourteen rNETs patients were identified. Median age at diagnosis was 48.5 years (range: 21 – 82). Nine patients were females. Pain was present at diagnosis in 8 patients, flushing and hematuria in 2 patients each.

Results: Four patients had a horseshoe kidney. WHO grade was G1: 36%, G2: 43% and G3: 7%. T stage was T1: 29%, T2: 29%, T3: 36% and mean tumor size 9 cm. Nodal and distant metastasis were present in 8 and 4 patients respectively. Bone metastases were common (2 at diagnosis, 4 at recurrence). Radical or partial nephrectomy performed in 13 patients. Nodal and/or metastatic resection/ablation was done in nine patients. Ten patients had R0 resection. Nine patients had recurrence (median time to recurrence 15.5 months) and eight received systemic therapy upon recurrence. Seven received a somatostatin analog, 4 cytotoxic chemotherapy (platinum + etoposide [2], 5-FU [1], irinotecan + cisplatin [1] and everolimus [1]). Two patients had a radiographic response, 4 stable disease and 5 progressed. Six patients received second-line therapy with no objective responses. At last follow up (mean follow up: 50 months), 4 patients were free of disease, 5 had stable disease and 3 had progressed. Two patients had died, one from renal NET. The median overall survival from diagnosis was 99.9 months.

Conclusion: rNETs are rare tumors. Most patients had a complete resection but recurrences were common. Despite frequent recurrences, overall survival is long. The role of systemic therapy is uncertain.