**Lower Urinary Tract Transitional Cell Carcinoma in the Domestic Feline – Clinical Findings, Treatments, and Outcomes (91 Cases)**

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**Introduction**

- Lower urinary tract neoplasia comprises approximately 2% of all canine malignancies. Transitional cell carcinoma (TCC) is the most prevalent urinary bladder cancer. Much information regarding TCC is known in dogs, including common anatomical locations, risk factors, treatment, and prognosis.

- Information regarding lower urinary tract neoplasia in cats is lacking, and the largest study to date only reports on 20 cases.

- Objective: To report the clinical characteristics, treatments, and outcomes in a cohort of cats diagnosed with TCC and to evaluate these variables for prognostic significance.

**Materials and Methods**

- Retrospective, multi-institutional study.

- Inclusion criteria: Feline patients with cytological or histopathological confirmation of TCC of the lower urinary tract.

- Recorded Variables
  - Signalment
  - Clinical signs and duration of clinical signs
  - History of lower urinary tract disease
  - Physical examination findings
  - Urine culture results
  - Diagnostic imaging (thoracic and abdominal radiographs, abdominal ultrasound, CT, and cystoscopy) results

- Medications
  - Surgery
  - Chemotherapy
  - Radiation therapy
  - Urethral/ureteral stent placement

- Comorbidities
  - Complications and adverse events
  - Tumor location
  - Timing and cause of death
  - Necropsy findings

- Variables were statistically analyzed to assess for significant differences.

- Median overall survival time (MST) was measured from date of presentation to death or last follow-up.

**Results**

- 91 cats (median age: 15 years) included

- 92.3% of cats had at least one clinical sign
  - Median duration of clinical signs: 30 days (IQR 9 - 105 days)
  - Common clinical signs: hematuria (59.3%), stranguria (49.5%), pollakiuria (47.3%)

- Urethral disease extension occurred in 14% of cats

- Cats with trigonal disease were significantly less likely to receive treatment (p=0.005).

- Recurrence or progression of the primary tumor was reported in 33 cats (36.3%), and metastatic progression was reported in 11 cats (12.1%). In 8 cats (8.8%), both primary progression and metastasis was reported.

- The MST for all cats was 170 days (95%CI 110 to 253).

- Treatment was significantly associated with survival (p<0.001).
  The MST was 63 days (95%CI 5 to 101) for untreated cats and 218 days (95%CI 155 to 407) for treated cats.

**Discussion**

- The large number of cases suggests that feline TCC may be more prevalent than previously suspected.

- Location of TCC appears to be more variable in cats than dogs and affects treatment decisions.

- Treatment options are varied and can improve prognosis.

- Plan: Continued data collection from other institutions (total number of cats included: 104), and regression analysis to determine differences in outcome based on treatments performed.