RESUMO SIMPLES - OUTRAS ÁREAS TEMÁTICAS

TRANSITIONAL CELL CARCINOMA IN A DOMESTIC CAT: SURGICAL APPROACH AND LIMITATIONS — CASE REPORT

Thainá Risso (thainarisso@hotmail.com)

Myllena Portugal Dos Reis (myllenaportugal@ufrrj.br)

Stanley Nobre Lima (stanleyvet.cirurgia@gmail.com)

Bianca Espindola Padial (bianca.espindolap@gmail.com)

Lívia Oliveira E Silva (liviaoliveira1296@gmail.com)

João Lucas Da Costa Dias (joaod.imagemvet@gmail.com)

Lívian Cristiny De Oliveira Dos Santos (livianngama1@gmail.com)

Kelly Regina Freitas Freire (kfmedvet@gmail.com)

Urothelial carcinoma (UC), also referred to as transitional cell carcinoma, is a malignant neoplasm of low prevalence in felines, although it is widely recognized for its highly aggressive behavior. It is characterized by marked local infiltration and a high metastatic potential, particularly to regional lymph nodes, which often leads to diagnosis at advanced stages. The rarity of this condition in the feline species, combined with its silent and aggressive progression, highlights the importance of detailed reports that contribute to the understanding of its biological behavior, therapeutic possibilities, and associated complications. Reports involving surgical intervention, especially extensive partial cystectomies in cats, are even more scarce in the literature, reinforcing the significance of the present case. A 14-year-old, 3.9-kg, mixed-breed female cat was presented to

the Veterinary Hospital of UFRRJ with recurrent hematuria, unresponsive to previous treatment with non-steroidal anti-inflammatory drugs. Ultrasonography revealed an irregular, hypoechoic, and vascularized mass located at the apex of the urinary bladder, measuring 2.17 × 1.92 cm, associated with bladder wall thickening and mild perivesical effusion. The suspicion of an infiltrative neoplastic process prompted the performance of bladder cytology via traumatic catheterization, which yielded a hypercellular sample compatible with urothelial carcinoma. Laboratory tests (complete blood count and biochemical profile) were within normal limits, allowing surgical intervention. Staging for metastatic disease, including thoracic radiographs and detailed abdominal ultrasonography, showed no significant abnormalities, supporting the feasibility of a surgical therapeutic approach. A partial cystectomy was elected, prioritizing complete excision of the mass. A prepubic incision and abdominal exploration were performed to expose the urinary bladder. After accessing the bladder lumen, the mass at the apex was identified and circumferentially excised. The remaining bladder accounted for less than 50% of its original anatomical volume, already indicating a potentially challenging postoperative period. Cystorrhaphy was performed in a single appositional layer using 4-0 polydioxanone in a simple continuous pattern, followed by routine closure of the abdominal layers. In the immediate postoperative period, a urinary catheter (no. 4) was maintained to minimize bladder distension and tension on the suture line. The cystorrhaphy required meticulous attention to avoid compromising the ureters, given the close proximity of the suture line to this region. The surgical specimen was submitted for histopathology, which confirmed high-grade urothelial carcinoma, presenting multiple exophytic papillary formations and invasion of the muscular and serosal layers. These findings reinforced the highly invasive nature of the tumor and its association with a guarded prognosis. Despite postoperative care, the patient developed cystorrhaphy dehiscence 48 hours later, as evidenced by ultrasonography. This complication is uncommon but may be favored by the combination of three main factors present in this case: the infiltrative and destructive nature of the neoplasm, the reduced bladder volume remaining after extensive resection, and the tissue fragility inherent to advanced neoplastic processes. A second surgical intervention and prolonged intensive support were not possible due to financial limitations of the owners, ultimately resulting in the decision for euthanasia. This case illustrates not only the aggressiveness of urothelial carcinoma in cats but also the technical and biological challenges associated with surgical attempts at treatment, especially when resection involves a large portion of the bladder wall.

It reinforces the importance of early diagnosis, thorough staging, and careful evaluation of the extent of surgery to be performed. This report contributes to the literature by demonstrating the limitations and risks associated with extensive partial cystectomies in cats with high-grade UC.

Palavras-chave: feline bladder neoplasia; partial cystectomy; surgical dehiscence; oncologic staging.