

Histopathological Changes of The Urinary Bladder In the Natural Occurred Infection with *Trichosomoides Crassicauda* In Albino Rats

**Flaviu TABARAN, Cornel CĂTOI, Adrian GAL, Pompei BOLFĂ, Marian
TAULESCU, Andras NAGY, Cosmina CUC, Gabriel BORZA, Raouad MOUSSA**

University of Agricultural Sciences and Veterinary Medicine, Faculty of Veterinary
Medicine, Mănăştur Street, 3-5 No, code 400372, Cluj-Napoca, Romania, e-mail:
flaviu_tabaran@yahoo.com

Trichosomoides crassicauda, a hair-like nematode which colonizes the urinary bladder of the laboratory and wild rats, is member of the order *Enoplida* and is therefore phylogenetically closely related to *Trichuris* and *Trichinella sp.* (1).

The evolutive cycle of the parasite is direct, the eggs which are cleared in the urine being ingested by new host. Frequently this infection is made shortly after birth from mother to newborns (3). In most cases the infection is asymptomatic, studies being published showing the occurrence of the granulomatous pneumonia, as well as mortality to young rats due to the infection and migration of the *Trichosomoides crassicauda* (2) larvae.

In this study we have aimed to histopathologically characterize the bladder lesions found in an experiment lot of 20 female gender rats, Wistar line.

The diagnosis of the urinary infection with *Trichosomoides crassicauda* was accidental, in a routine necropsy exam at some of the animals noticing microulcerations, and at a more accurate look with a magnifier, filiform parasite forms implanted in the bladder mucosa. The infection confirmation was done by an ovoscopic exam of the urine and through a histopathological exam of the urinary bladder to directly visualize the females implanted at the urotelium level. The characterization of the bladder lesions was made histopathologically using the usual techniques of hematoxilin – eosin staining as well as Toluidine Blue staining for the characterization and quantification of the bladder macrophage population.

At the urotelium level the lesions associated to the infection consisted in focal thickenings around the parasitic forms and in few cases miliar ulcers. The ulcers have a reduced extent, a superficial character and a cellularity which indicates a chronic evolution. The main alterations found in the lamina were of eosinophilic interstitial cystitis. The accumulation of the eosinophils was centered on the areas where the parasites were implanted, being positively correlated to the presence and activity of the mastocytes. At the lamina level are found granulomatous cystitis areas of reduced or average intensity, composed of mainly eosinophils, macrophages and different levels of lymphocytes and plasmocytes.

REFERENCES

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